

APPENDICES

TO THE

REPORT OF THE SPECIAL COMMISSION

APPOINTED BY

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

TO ENQUIRE INTO THE

ORGANIZATION AND EXPENDITURE

OF THE

ARMY IN INDIA.

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VOL. I.

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SIMLA:  
GOVERNMENT CENTRAL BRANCH PRESS.

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1879.

## VOLUME I.

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## APPENDIX I.

### Resolution of the Government of India appointing the Commission.

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*Extract from the Proceedings of the Right Hon'ble the Governor-General in Council in the Military Department,—No. 201 S.B., dated Simla, 7th July 1879.*

Read again the following papers regarding reduction of expenditure, viz.,—

Resolution in the Financial Department, No. 410, dated Simla, 1st May 1879.

Memorandum, Financial Department, No. 444, dated 3rd May 1879.

Despatch to Secretary of State, No. 168 of the 22nd May 1879, regarding the reduction of Military expenditure and the appointment of a Special Commission to undertake a thorough and exhaustive enquiry into the Military system in India, and the practicability of introducing economy into the Military administration without loss of efficiency.

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RESOLUTION.—In furtherance of the object referred to in the preceding papers, His Excellency the Governor-General in Council has been pleased to determine that a Special Commission shall assemble at Simla, on such date as will be hereafter notified, and to appoint the following officers to serve on the Commission :—

*President :*

The Hon'ble SIR ASHLEY EDEN, K.C.S.I.

*Members :*

Major-General P. S. LUMSDEN, C.B., C.S.I., Aide-de-Camp to the Queen, Bengal Staff Corps.

Major-General F. S. ROBERTS, R.A., C.B., V.C.

Brigadier-General R. PHAYRE, C.B., Aide-de-Camp to the Queen, Bombay Staff Corps.

Brigadier-General H. H. O'CONNELL, Madras Staff Corps.

Brigadier-General H. T. MACPHERSON, C.B., V.C., Bengal Staff Corps.

Colonel T. D. BAKER, C.B., Aide-de-Camp to the Queen, 18th Foot.

Colonel C. M. MACGREGOR, C.B., C.I.E., Bengal Staff Corps.

Major O. R. NEWMARCH, Bengal Staff Corps.

C. E. BERNARD, Esq., C.S., C.S.I.

*To be Secretary to the Commission :*

Captain E. H. H. COLLEN, Bengal Staff Corps.

2. The Commission is empowered to call upon all officers or departments, civil or military, serving under the several Governments and Administrations in India, for any information it may deem necessary in the prosecution of its enquiries; and the several Governments will be requested to afford the Commission every assistance and information that may be needed.

3. The instructions of the Government of India, in regard to the scope of the enquiries to be instituted by the Commission, and the nature of the report required from it, will be communicated to the President from the Military Department.

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Copy to the Governments of Madras, Bombay, Bengal, North-Western Provinces and Oudh, &c.; to the Chief Commissioners, British Burma, Central Provinces, &c.; and to Departments.

(Sd.) H. K. BURNE, Colonel,  
Secretary to the Government of India.

## APPENDIX II.

Letter addressed by the Government of India in the Military Department to all Local Governments and Administrations regarding the Military requirements of the various Provinces of India, and replies thereto—

A. Bengal.	H. Central Provinces.
B. Assam.	I. Madras.
C. North-Western Provinces and Oudh.	J. Hyderabad.
D. Punjab.	K. Mysore and Coorg.
E. Bombay.	L. British Burma.
F. Central India.	M. Andamans.
G. Rajputana.	

No. 204 S.B., dated Simla, 7th July 1879.

From—COLONEL H. K. BURNE, C.B., Secretary to the Govt. of India, Military Dept.,  
To—All Local Governments and Administrations.

I am directed by the Right Hon'ble the Governor-General in Council to inform you that a Commission on Army Organization and Expenditure in India has been appointed, and that in His Excellency's opinion it is most desirable it should have the advantage of becoming fully acquainted with the views of the \_\_\_\_\_ on the military requirements of that Government in reference to its necessary garrison; the immediate repression of internal disturbance or insurrection; and for the maintenance of order.

2. I am therefore to request that the Commission may be furnished at the earliest possible date with full particulars on the following points:—

- (a) Strength of Native population.
- (b) Strength of European and Eurasian population (exclusive of army).
- (c) State of feeling.
- (d) Elements of danger.
- (e) Strength of police.
- (f) Distribution of police.
- (g) Efficiency of police.
- (h) European and Eurasian population considered as—
  - (1) strength in combatant power and for the maintenance of order;
  - (2) weakness in necessity for provision of safety of non-combatants, women and children;
  - (3) of possible greater utility than at present if organized for the maintenance of order in case of disturbance.
- (i) Question of compulsory enrolment.
- (j) Development of volunteer system.

3. His Excellency in Council also begs the Commission may be furnished with the opinion of the \_\_\_\_\_ on the general military requirements of the Province—

- (a) for "garrison" purposes and the maintenance of order;
- (b) for internal and external military purposes irrespective of (a).

4. I am in conclusion to beg the favor of a reply at the earliest possible date, which should not be later than the 15th August. Your reply should, if possible, be printed and addressed to—

THE PRESIDENT,

*Army Organization, &c., Commission, Simla,*

20 spare copies being at the same time sent to the Secretary.

## A.—BENGAL.

No. 1724 T., dated Darjeeling, 9th August 1879.

From—H. A. COCKERELL, Esq., Secretary to the Government of Bengal,  
To—The President of the Commission on Army Organization and Expenditure in India,  
Simla.

In letter No. 204 S.B., dated the 7th ultimo, from the Government of India in the Military Department, the Lieutenant-Governor was requested to furnish the Commission on Army Organization and Expenditure with information on the points noted in paragraph 2 of that letter, and also to

communicate the views of the Government of Bengal on the military requirements of the Province in reference to its necessary garrison, the immediate repression of internal disturbance or insurrection, and the maintenance of order.

2. With reference to paragraphs 1 and 3 of the letter cited above, I am directed to forward a copy of a note drawn up by Sir Ashley Eden on the distribution of troops in Bengal; and to say that Sir Steuart Bayley fully concurs in the views therein expressed. It will be seen from that note that the Government of Bengal recommend the abolition of all small cantonments in Bengal, with the exception of Baxa, Darjeeling (Jellapahar), Cuttack, and Dorunda; and the concentration of troops at two centres, Calcutta and Dinapore. If, as proposed, the regiment of Europeans at Dum-Dum is removed to Darjeeling, the troops to be stationed at Calcutta, *i.e.*, Fort William, Alipore, and Barrackpore, will be as follows:—

Fort William	...	...	{ 1 Garrison battery. 1 European regiment. 1 Regiment of Native infantry.	
Alipore	...	...		2 Regiments Native infantry.
Barrackpore	...	...		{ 2 Batteries of artillery. 2 Companies European infantry. 2 Regiments of Native infantry. Detachment of Native cavalry.

Or, if only a wing remains at Baxa, then two-and-a-half regiments of Native infantry should be stationed at Barrackpore. At Dinapore there would be one field battery, one regiment European infantry, and one regiment Native infantry; at Dorunda there would be one regiment Native infantry, with a detachment at Hazaribagh; and at Darjeeling one regiment of European infantry, with a detachment at Barrackpore. The regiment at Cuttack would remain there, but it should be a Bengal, and not a Madras, regiment.

3. This scheme would set free the regiment at Julpigoree with its wing at Dacca, the regiment at Bhaugulpore with its detachment at Nya Doonka, the detachment at Berhampore, and the cavalry at Segowlie. The force in Bengal would be diminished by two regiments of Native infantry, one regiment of Native cavalry, and one battery of artillery.

4. The Lieutenant-Governor is of opinion that the distribution of troops now proposed would suffice to meet the general requirements of Bengal, both for garrison purposes and the maintenance of order, and for internal and external military purposes. The troops proposed to be stationed at Fort William, Alipore, and Barrackpore would always leave three or four regiments of Native infantry available and ready to be sent, if required, on any emergency or in any direction.

5. The annexed Statements I and II show the strength of the Native population, the strength of the European and Eurasian population (exclusive of troops), and the strength and distribution of the police in this province.

6. The Lieutenant-Governor is of opinion that in these provinces there is nothing in the state of public feeling which can be considered to constitute an element of danger. Notwithstanding the occasional rash utterances of a portion of the Press, there is not, in Sir Steuart Bayley's opinion, any general feeling of hostility to Government, nor, if taxation is kept within moderate limits, does he see any element likely to give rise to such a feeling. Of the political sources of disquiet which have at different times been discerned in the Ferazis of Eastern Bengal and in the Wahabis of Patna, the Lieutenant-Governor has little hesitation in saying that, at present at all events, he can see in these sects no source of danger or disturbance; and should the gradual improvement in the condition of the agricultural population be attended, as has sometimes been apprehended, with agrarian riots, there is no reason to suppose that such disturbances will ever be anything but local, or more serious than can be met by the action of the police. On this subject, however, as Sir Ashley Eden is President of the Commission, it is unnecessary for Sir Steuart Bayley to give more than an outline of his views. The President's own knowledge and position entitle him to speak with far greater authority and with more fulness on the subject; and Sir Steuart Bayley has little doubt that that authority will be found to support his own views.

7. With regard to the efficiency of the police, I am to say that the force in the Lower Provinces was recently reduced to the lowest possible strength compatible with the maintenance of internal peace and order. In the event of the proposals made above for the reduction and redistribution of the troops in Bengal being adopted, it will be necessary to entertain an additional force of two European inspectors, three sub-inspectors, 20 head-constables, and 250 constables, at a total cost of Rs. 31,800 per annum. This force will be carefully drilled, and be divided into three parties. A European inspector, a sub-inspector, eight head-constables, and 100 men will be stationed at Dacca; and a similar party at Bhaugulpore. A sub-inspector, four head-constables, and 50 men will be posted at Moorshedabad, the object being to strengthen the reserves at these places in case of any local disturbances.

8. The total strength of the European and Eurasian population of Bengal, exclusive of the army, is 41,453, of whom 19,661 live in Calcutta. The remaining 21,792 are scattered in small numbers throughout the country, as will be seen from Statement No. I appended to this letter. Except in Calcutta and the suburbs, and in a few large towns, such as Dacca, Chittagong, and Serampore, the Eurasian population is very small. In Behar and Darjeeling there are a considerable number of non-official European planters, who would materially assist in the maintenance of order in the event of any serious internal disturbance; but, on the whole, the Lieutenant-Governor is of opinion that, except in Calcutta, the strength of the European and Eurasian population, in combatant power and for the maintenance of order, is about counterbalanced by the necessity of providing for the safety of their women and children in case of disturbance. The Lieutenant-Governor does not consider that the scattered European and Eurasian population outside Calcutta could be so organized as to be of any greater utility than at present. In Calcutta the Europeans and Eurasians form a most powerful and valuable element of strength both as a combatant and as a protective power.

9. Neither Sir Ashley Eden nor Sir Stenart Bayley considers the compulsory enrolment of Europeans and Eurasians possible or desirable, nor do they look forward to any great development of the volunteer system beyond the stage that it has now reached.

*Note by the Lieutenant-Governor on the distribution of Troops in Bengal.*

This Government is about to be asked by the Government of India what reductions it is possible to make in the number of troops stationed in Lower Bengal, and specially in the number of small cantonments and detachments.

Now, the position of Bengal in respect to the stations which it is necessary to occupy with troops has very much changed in late years, and, since the subject was last considered and settled, we now have railway communication in a few hours between Calcutta and the North-Eastern Frontier, and we can also send troops from Calcutta to Dacca by railway and steamer in a day and night.

There can be no greater mistake than to shut troops up in isolated cantonments; it is an enormous waste of power, and a great expense. The regiment, which has a wing at Julpigoree and a wing at Dacca, may be at once withdrawn. Julpigoree is within 18 hours by rail of Calcutta; and if the regiment at Baxa ever wanted support, it would be supported almost as easily from Calcutta as from Julpigoree. I understand that the Commanding Officer and the Commissioner think that Baxa is a better cantonment than Julpigoree, and that there are strong reasons for maintaining it at Baxa: But they think a wing sufficient; the other wing might be withdrawn to Calcutta. Troops are not likely to be wanted at Dacca on any sudden emergency; and, for the Eastern districts, Goalundo is as good a centre as any other place, and troops could be sent just as easily from Calcutta to the Eastern districts as from Dacca. It may be necessary, however, if the garrison is withdrawn from Dacca, to slightly increase the police reserve. The work likely to fall upon any force in the Dacca division is police work proper, the maintenance of internal peace and order, and not the control of a foreign enemy.

The regiment at Bhaugulpore is not wanted. The people of Bhaugulpore are as quiet, loyal, and well-behaved as the people of any place in India. The detachment at Nya Doomka may be withdrawn, their place being taken by a strong police guard, if necessary.

The Sonthal country, which is now settled and quiet, is surrounded by railways; and troops could be poured into it more easily from Calcutta and Dinapore than from any other place. The detachment at Berhampore is quite useless except to occupy barracks erected at an enormous expense only to be condemned.

The detachment of Europeans at Hazaribagh is not wanted; and it must be demoralising to such a small detachment to be separated from its head-quarters. There is a regiment of sepoys at Dorunda; and if the European detachment is removed, one company from Dorunda might be sent on detachment at Hazaribagh.

I have never been able to understand why a cavalry regiment should be stationed at a detached outlying station like Segowlie, where it could only be available for local purposes. If it is meant to overawe Nepal, I think it is entirely wasted. If Nepal invades British territory, it will only be after long preparation and warning; and, under such circumstances, a far more formidable force than a Native cavalry regiment would have to watch the frontier. If this cavalry regiment is required for purposes of a general military character, it should be removed to Dinapore or Benares or Allahabad, or some military centre from which it can be detached and sent by rail in any direction in which it is required.

There is a battery of artillery at Darjeeling which is not absolutely necessary. Indeed, how unnecessary it is may be gathered from the fact that it has for years not had any serviceable guns. It may be that it is required to be stationed in the hills for sanitary purposes; but if this is so, one battery the less might be retained at Barrackpore, and the Darjeeling battery moved down there when required. At present, entirely unequipped as it is, it is a most useless and extravagant waste of money. It would be very much better to remove this battery, and, with the barracks it would vacate, there would be accommodation for the head-quarters of the regiment now at Dum-Dum. If further accommodation was required, there is plenty of room for building cheap barracks or cottages: the barracks lately constructed are far more massive and costly than is necessary.

I also think that the second regiment of Europeans now stationed at Dum-Dum would be much better stationed at Darjeeling, or, at all events, the head-quarters and one wing. It might be necessary probably to leave a detachment of the regiment at Barrackpore. With the tramway running into Jellapahar, and joining the Northern Bengal Railway, this regiment could always be sent for when wanted in the plains; and having regard to the extraordinary unhealthiness of Dum-Dum, and the great sickness of the regiment there, I am sure it would be good economy to station it at Jellapahar. If this is determined upon, cheap huts should be constructed instead of the expensive stone barracks now used for the troops. If the battery were removed, as I have said above, very few new barracks would be wanted for a wing. If a regiment, or the head-quarters of a regiment, was stationed at Jellapahar, men sent up as convalescents could be attached temporarily to the different companies of such regiment, and be brought under the control of officers and non-commissioned officers far more completely than they now can be.

The system of convalescent depôts is wasteful and extravagant. The establishment of officers and hospital staff alone costs Rs. 58,000 a year. It is quite unnecessary to make an expensive command of a hill depôt. Any regimental field officer would be glad to take the command for a command allowance of Rs. 200 a month. A regimental officer would gladly take the appointment of staff officer on Rs. 50 a month. But if a wing of a regiment was sent up to the depôt, and sick men from other regiments attached temporarily to that, all such allowances would cease. At present there is a charge of Rs. 25,000 for hospital staff for an average of 15 men.

It will be seen from this that, with the exception of Baxa, Darjeeling (Jellapahar), and Dorunda, I would abolish all small cantonments in Bengal, and would concentrate the troops at two centres, Calcutta and Dinapore. In Calcutta, I of course include Alipore, Fort William, and

Barrackpore, taking them for my purpose as one station. I would station troops there, supposing the Dam-Dum regiment is removed to Darjeeling, as follows:—

Fort William	...	...	} 1 Garrison battery. 1 European regiment.
Alipore	...	...	
Barrackpore	...	...	} 2 Companies European infantry. 2 Regiments of Native infantry. Detachment of Native cavalry.

or, if only a wing remains at Baxa, I would give Barrackpore two-and-a-half regiments Native infantry.

This would always give three or four regiments of Native infantry to send in any direction, either to East or North Bengal, or elsewhere. At Dinapore I would have—

1 Field battery.	1 Regiment European infantry.
1 Regiment Native infantry.	

At Dorunda, one regiment Native infantry, with detachment at Hazaribagh. At Darjeeling, one regiment European infantry, with detachment at Barrackpore. This would set free the regiment at Julpigoree with its wing at Dacca, the regiment at Bhagulpore with its detachment at Nya Doonka, and the detachment at Berhampore and the cavalry regiment from Segowlie. The force in Bengal would be diminished by two regiments of Native infantry, one regiment of Native cavalry, one battery of artillery.

## No. I.

Statement showing the strength of Native population and strength of European and Eurasian population (exclusive of army).

Districts.	Strength of Native population.	Strength of European and Eurasian population, exclusive of army.	Total.
<b>BENGAL.</b>			
WESTERN DISTRICTS.			
<i>Burdwan Division.</i>			
Burdwan ... ..	2,034,212	533	2,034,745
Bankoora ... ..	526,739	33	526,772
Beerbhoom ... ..	695,830	91	695,921
Midnapore ... ..	2,540,746	217	2,540,963
Hooahly and Howrah ... ..	1,487,157	1,399	1,488,556
Total ... ..	7,284,684	2,273	7,286,957
CENTRAL DISTRICTS.			
<i>Presidency Division.</i>			
24 Pergunnahs ... ..	2,204,879	4,466	2,209,345
Calcutta ... ..	408,927	19,661	428,588
Nuddea ... ..	1,812,582	213	1,812,795
Jessore ... ..	2,074,880	141	2,075,021
Moorshedabad ... ..	1,353,315	311	1,353,626
Total ... ..	7,854,583	24,792	7,879,375
<i>Rajshahye Division.</i>			
Dinagepore ... ..	1,501,903	21	1,501,924
Rajshahye ... ..	1,310,628	101	1,310,729
Rungpore ... ..	2,149,931	41	2,149,972
Bograh ... ..	689,448	19	689,467
Pubna ... ..	1,211,562	32	1,211,594
Darjeeling ... ..	94,292	420	94,712
Julpigoree ... ..	413,633	32	413,665
Total ... ..	7,376,397	666	7,377,063

Districts.	Strength of Native population.	Strength of European and Eurasian population, exclusive of army.	Total.
<i>BENGAL—continued.</i>			
<i>EASTERN DISTRICTS.</i>			
<i>Dacca Division.</i>			
Dacca ... ..	1,847,032	5,961	1,852,993
Furreedpore ... ..	1,012,505	84	1,012,589
Backergunge ... ..	2,377,279	154	2,377,433
Mymensingh ... ..	2,349,819	98	2,349,917
Tipperah ... ..	1,533,880	51	1,533,931
Total ... ..	9,120,515	6,348	9,126,863
<i>Chittagong Division.</i>			
Chittagong ... ..	1,126,860	1,042	1,127,402
Noakholly ... ..	713,707	227	713,934
Chittagong Hill Tracts ... ..	69,577	30	69,607
Total ... ..	1,909,644	1,299	1,910,943
<i>BEHAR.</i>			
<i>Patna Division.</i>			
Patna ... ..	1,557,418	1,358	1,558,776
Gya ... ..	1,949,629	121	1,949,750
Shahabad ... ..	1,723,571	403	1,723,974
Mozufferpore ... ..	4,384,489	217	4,384,706
Durbhunga ... ..			
Sarun ... ..	2,063,736	124	2,063,860
Chumparun ... ..	1,440,722	93	1,440,815
Total ... ..	13,119,565	2,316	13,121,881
<i>Bhaugulpore Division.</i>			
Monghyr ... ..	1,812,038	943	1,812,986
Bhaugulpore ... ..	1,826,121	169	1,826,290
Purneah ... ..	1,714,484	311	1,714,795
Sonthal Pergunnahs ... ..	1,259,075	212	1,259,287
Maldah ... ..	676,389	37	676,426
Total ... ..	7,288,107	1,677	7,289,784
<i>Orissa Division.</i>			
Cuttack ... ..	1,494,380	404	1,494,784
Pooree ... ..	769,650	24	769,674
Balasore ... ..	770,151	81	770,232
Tributary Mehals ... ..	1,283,308	1	1,283,309
Total ... ..	4,317,489	510	4,317,999
<i>Chota Nagpore Division.</i>			
Hazaribagh ... ..	770,472	1,403	771,875
Lohardugga ... ..	1,237,029	94	1,237,123
Singbhoom ... ..	415,001	22	415,023
Manbhoom ... ..	995,517	53	995,570
Tributary Estates ... ..	405,980	...	405,980
Total ... ..	3,823,999	1,572	3,825,571
GRAND TOTAL ... ..	62,094,983	41,453	62,136,436
<i>Native States.</i>			
Cooch Behar ... ..	...	...	532,565
Hill Tipperah ... ..	...	...	35,262



No. II.

Statement showing the strength and distribution of Police in the Lower Provinces, including Calcutta.

COMMISSIONER'S DIVISION.	Names of districts.	SANCTIONED STRENGTH OF POLICE FORCE.										DISTRIBUTION OF FORCE.								
		Inspector-General, Deputy Inspector-General, and Assistant Inspector-General.		Strength of district, cantonment, town, or municipal and water police, paid for wholly or in part from Imperial revenues.				Strength of cantonment, town, or municipal and water police, paid wholly from other than Imperial revenues.				In district.				On town, municipal, or harbour duty.	In cantonments.			
		Number of District and Assistant District Superintendents.	Number of subordinate officers on Rs. 100 and upwards.	Number of subordinate officers on less than Rs. 100.	Number of mounted police constables.	Number of foot police constables.	Number of water police constables.	Officers.	Men.	Total of columns 2 to 10.	Guards at district, central, or subsidiary jails.		Guards over lock-ups and treasuries, or as escort to prisoners and treasure.		On other duties.					
											Officers.	Men.	Officers.	Men.	Officers.	Men.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
<b>BENGAL.</b>																				
<i>Western Districts.</i>																				
BURNPOUR.	Burdwan	2	8	94	...	419	...	18	300	639	1	8	7	48	94	368	318	...		
	Bankura	1	1	33	...	183	...	3	64	245	1	9	1	8	33	119	67	...		
	Bardham	1	1	36	...	141	...	1	28	229	1	5	4	13	33	143	24	...		
	Midnapore	1	1	136	...	683	...	21	181	1,027	2	19	17	122	124	673	170	...		
	Hoojly	1	1	43	...	209	...	20	331	721	1	6	10	37	56	209	851	...		
	Howrah	1	1	89	...	571	...	...	8	609	...	...	2	24	53	207	360	...		
<i>Central Districts.</i>																				
PREST-DEPUT.	24 Pergunnahs	3	9	129	...	614	64	90	558	1,494	1	5	29	199	110	544	522	24		
	Nudda	2	2	...	...	429	...	18	205	696	1	6	8	63	53	367	378	...		
	Jessore	2	2	95	...	479	49	...	70	701	2	32	15	147	86	349	70	...		
	Mourshedabad	2	2	106	...	497	...	18	234	877	2	24	10	41	101	432	259	6		
RAJSHYH.	Dinajpore	2	2	57	...	320	...	2	30	414	1	0	2	20	69	294	32	...		
	Raichahye	1	1	99	...	318	...	2	65	453	1	14	12	31	62	273	70	...		
	Rumjore	2	2	72	...	418	...	3	27	526	3	52	5	36	71	390	29	...		
	Bogra	1	1	39	...	185	...	2	30	259	1	5	4	24	37	162	32	...		
	Pabna	2	2	54	...	214	...	4	68	374	1	5	5	25	52	211	72	...		
	Darjeeling	1	1	38	...	168	...	2	22	227	1	12	8	45	52	111	24	...		
JALPIGORE.	Jalpigore	1	1	45	...	244	...	1	13	306	1	21	4	23	43	197	14	...		
	<i>Eastern Districts.</i>																			
	Dacca.	Dacca	2	4	68	...	329	14	11	275	701	1	14	7	57	66	272	284	...	
		Faridpore	1	1	65	...	290	28	3	70	407	1	0	6	35	63	283	73	...	
		Hackensonge	2	4	95	...	440	...	8	110	654	2	20	7	46	92	374	113	...	
		Mymensingh	2	2	71	...	369	9	7	92	546	2	32	5	27	71	310	99	...	
Tipperah		1	1	41	...	270	...	3	49	367	2	25	4	47	30	195	52	...		
CHITTAGONG.	Chittagong	1	4	65	...	319	...	5	50	450	1	5	2	26	67	289	61	...		
	Koexhally	1	1	45	...	274	...	1	14	308	2	30	4	33	43	211	15	...		
	Chittagong Hill Tracts	3	4	49	...	607	...	...	...	619	...	...	2	9	50	688	...			
Total		42	96	1,712	...	9,126	215	159	2,350	14,320	32	387	150	1,181	1,600	7,443	3,479	33		
<b>BIHAR.</b>																				
PATNA.	Patna	8	7	106	...	932	...	20	362	1,430	3	42	19	80	64	323	644	63		
	Gya	1	1	18	...	462	...	16	287	871	1	15	7	45	94	408	303	...		
	Shahabad	2	2	78	...	523	...	8	353	719	1	12	10	96	74	258	261	...		
	Muzafferpore	1	1	64	...	253	...	11	165	618	1	6	6	49	52	234	176	...		
	Dumrainga	1	1	45	...	255	...	11	135	453	1	11	3	28	46	180	146	...		
	Saran	2	2	67	...	324	...	11	162	568	2	30	16	108	53	216	173	...		
BHAUGUL-FORE.	Chouparan	1	1	52	...	249	...	8	37	344	1	11	6	51	48	207	40	...		
	Monghyr	2	3	51	...	214	...	9	127	490	1	6	3	23	62	254	136	...		
	Bhuzailpore	1	1	63	...	310	...	6	124	511	3	19	7	35	59	266	194	...		
	Buzbah	1	1	79	...	362	...	6	117	655	1	0	16	113	93	243	123	...		
	Southal Pergunnahs	1	1	38	...	204	...	1	10	316	...	...	2	98	33	166	111	...		
	Madiah	1	1	36	...	165	...	2	36	273	...	...	1	22	35	169	38	...		
Total		20	40	762	...	4,306	...	104	1,819	7,059	16	163	109	725	674	2,941	2,385	63		
<b>ORISSA.</b>																				
ORISSA.	Cuttack	3	4	84	...	434	3	8	90	605	1	5	5	79	61	323	80	9		
	Pooree	1	1	71	...	392	...	5	65	416	1	6	4	29	62	238	70	...		
	Balasore	1	1	82	...	365	20	2	38	508	1	5	5	37	61	369	30	...		
	Gujata	1	1	27	...	124	...	...	...	211	...	...	4	37	27	147	...	...		
Total		6	11	268	...	1,326	23	16	183	1,769	3	15	15	172	261	1,090	189	9		
<b>COOZA NAPORE.</b>																				
<i>South-West Frontier Agency</i>																				
COOZA NAPORE.	Hazratnagh	1	1	2	...	411	...	3	75	693	6	47	8	30	78	248	71	5		
	L. A. A. A.	2	2	2	...	368	...	1	69	1296	1	10	6	30	61	224	70	...		
	Singh Bani	1	1	2	...	174	...	...	...	177	1	10	0	8	26	129	10	...		
	Mandhapur	1	1	10	...	235	...	3	48	317	1	5	0	31	57	200	48	...		
Total		5	5	20	...	1,188	...	7	197	1,653	9	72	22	102	244	1,090	189	5		
Total of districts		79	146	3,000	...	32,150	234	314	5,150	24,792	60	617	323	2,150	2,774	12,477	6,252	99		
Government Railway Police		1	...	...	...	480	...	...	...	675	...	...	...	...	96	48	...	...		
Office of Inspector-General of Police, Lower Provinces		4	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...		
Total		6	...	...	...	480	...	...	...	670	...	...	...	...	90	48	...	...		
GRAND TOTAL		5	73	163	3,078	32,150	234	314	5,150	25,371	80	617	323	2,150	2,871	12,776	6,252	99		

1	SANCTIONED STRENGTH OF POLICE FORCE.									DISTRIBUTION OF POLICE.						
	Commissioner of Police.	Strength of police paid for wholly or in part from Imperial revenues.					Strength of police paid from additional constables' fund.			Total of columns 2 to 9.	Government guards, lock-up guards, and Fort police.		River police, salt-pass station, preventive establishment under Act XIV. 1868.		Other duties.	
		Deputy Commissioner.	Superintendents.	Subordinate officers.	Constables.	Mounted constables.	Subordinate officers.	Constables.	Officers.		Men.	Officers.	Men.	Officers.	Men.	
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Calcutta and Suburbs ...	1	1	7	306	2,407	6	25	292	3,076	54	351	31	174	252	3,210	
Total police in the Lower Provinces, including Calcutta ...	...	...	...	...	...	...	...	...	28,446	...	...	...	...	...	...	

## B.—ASSAM.

*Note by the Chief Commissioner on the Military requirements of Assam.*

In order to lay fully before the Commission my views on the military requirements of Assam, it is necessary to advert briefly to the physical configuration of the province, and to the nature of the various tribes within and around it. Speaking roughly, the province consists of the two valleys of the Brahmaputra and the Surma rivers, with the intervening ranges of mountains. It is bounded on the north by the lower spurs of the eastern Himalayas; and our neighbours on this border, beginning from the west, are first the people of Bhootan proper, next the Rhoontias of Towang, a dependency of Thibet. Both peoples live under an organized government, and have for some years past been very good neighbours, from whom we have nothing to fear.

2. Next come the savage tribes of Akas, Dufflas, and Miris. With the Dufflas we had some trouble five years ago; but none of these are warlike tribes, nor need any serious injury be apprehended from them. Outposts of armed police, however, have to be maintained along the frontier, to guard against any petty raids that might be projected. Eastward again beyond these are the Abors, a warlike and turbulent tribe, against whom we have made more than one unsuccessful expedition. In their claim to the whole country between the low hills and the Brahmaputra, and in their predatory habits, there are standing causes of quarrel which will probably lead to an open attack before long. The proposed advance of our line of posts on this frontier will strengthen our position; but for many years to come this portion of the frontier will need to be strongly guarded both to repel and, if need be, to punish aggression.

3. Beyond these are the Mishmis, who also occasionally give trouble, but who will be held completely in check by the advanced line of posts. From them no serious danger need be apprehended; but, in their case likewise, numerous armed posts have to be maintained for defensive purposes. On the eastern frontier, the Mishmi hills, which sweep round the Brahmaputra valley, form our boundary, and are inhabited by Singhpoos and Khamptis, the latter a Shan tribe, and the former having also a Burmese origin. These tribes give no trouble, and under ordinary circumstances are unlikely to give any; but through their country lie the routes between the valley of the Brahmaputra, and both Upper Burma and the Bathang-Bharno road, and it is probable that we shall some day come into closer relations with them, either amicable or hostile.

4. There is a portion of the boundary here, where the hills turn to the south-west, not yet surveyed. These hills are inhabited by some of the tribes who go under the indiscriminate name of Nagas; but the Nagas generally will come under consideration hereafter. Turning southward, the frontier marches with that of Manipore for some distance. Manipore has an estimated army of 5,000 or 6,000 strong. The men are said to be of good physique and possessed of many soldierly qualities; and the Political Agent thinks that, with the assistance of a few European officers, they might be made of very great use in case of complications arising with Burma, and, even as they now are, may be very useful auxiliaries against the Nagas on one side or the Lushais on the other. Their ignorance of drill and discipline makes them of little account in scientific warfare; and, under present circumstances, I apprehend no danger whatever from Manipore. I ought not to omit here the fact, *quantum collect*, that the Assam valley has been, and might again be, disturbed by the incursion of Burmese over the Patkoi into the valley of the Dehing. Personally I look upon such a contingency as in the highest degree improbable; but attention having been called to it in the newspapers by a gentleman\* of great

\* Mr. S. Peal.

knowledge and experience, I think proper to mention it.

5. Leaving Manipore, the boundary of the Assam province on the south may be said for the present to be the range of low hills inhabited by the Lushai tribes, and further west by the people of Hill Tipperah, beyond which it is needless to go. The Lushais have at times given us serious trouble, and inflicted very considerable loss; but since the expedition of 1871-72 there have been no raids made by them, and by the maintenance of bazars in their neighbourhood we have acquired a very

considerable hold over them. But pressure from other tribes to the south-east, or internal dissensions, or the rise of a new chief, may at any moment bring about a renewal of their restless spirit, so that, on our part, an incessant watchfulness, and the maintenance of numerous and efficient posts, are still of the first necessity along this part of our boundary.

6. I have hitherto abstained from speaking of the most formidable and aggressive of the tribes with whom we have to do, *viz.*, the heterogeneous clans or tribes whom we group under the name of Nagas, because they are not, geographically speaking, external to the province, but inhabit the range of hills dividing the valley of the Brahmaputra, east of the Doyang, from that of the Surma, east of the Jaintia hills, and may be said to be almost wholly within the territorial boundaries of the province. We have lately taken up a permanent position at Kohima, in the centre of the Augami tribe of Nagas, from which we can control this the most warlike of the clans far better than from Samuguting; but with this position we have also undertaken the responsibility of bringing the tribes gradually under subjection to the law, and of repressing the unceasing raids and massacres which have, with sickening reiteration, been reported in every annual report, but which have never yet been systematically met or repressed. It is needless to say that the retention of Kohima and its sub-division of Wokha in the Lhota-Naga country will, no less than the steady enforcement of the Government policy, be in all probability resented by them; and that both our outposts and communications in this country will require to be most carefully guarded. Consequently a strong force, not only for defensive purpose, but available for punitive and repressive measures, must be deemed an absolute necessity; and for some years to come our position will be that of a garrison in an enemy's country.

7. Little need be said of the other races inhabiting this range of mountains. To the west of the Nagas come the Syntengs or Jaintias, who broke into rebellion 18 years ago, but who, like their neighbours the Khasias, are now a peaceful and contented race, unlikely to give trouble; and again, to the west of the Khasia and Jaintia hills, come the Garos, who likewise are settling down into a peaceable and civilized community. But though I anticipate no trouble from these hill tribes, it must be remembered that their peacefulness and abstinence from bloodshed is of recent date, and is a lesson still only partially learnt; consequently that they cannot be left, like the people of the plains, to the mere moral authority of the civil police, but must be subjected to the visible control of some armed force among them.

8. From the above survey it will be seen that we have little to fear from any organized aggression of a foreign enemy, or from internal rebellion, but that, on the other hand, we have to guard at every point along an enormously extended external frontier, and along the quasi-frontier of the Naga hills, against raids from barbarous tribes, who, although of no organized strength, can yet issue from the hills, cut up villages, and carry back their plunder with great ease, causing us much harassment and expense in the endeavour to enforce punishment. Speaking generally, none of these tribes have any cohesion; none of them act together. Some of them have neither tribal nor even village chiefs; and if it were a question of meeting them in our own territory only, 50 men at any one point would be more than a match for any force that could well be brought against that point. But it might very easily happen, not by design, but accidentally, that we were simultaneously called on to meet Lushai incursions in the south and Abor incursions in the north, while a Naga expedition was going on in the middle of the province. The occasional necessity, moreover, of meeting these incursions by punitive measures, and making hostile expeditions into the enemy's country, must not be lost sight of. This necessity involves something in the shape of reserves at particular points on the frontier, in addition to the actual strength of the defensive posts, besides central reserves, properly so-called; and it is from the double necessity of guarding and strengthening numerous posts along the frontier, and at the same time being ready to undertake frequent hostile expeditions, that the existing system of distributing our armed force has grown up. This system I now proceed to describe.

9. The central reserve consists of the head-quarters of four native regiments, each 800 strong. Of these, two are stationed at Shillong, which has the advantage of being very healthy, and so far centrally situated as to be equidistant from the northern, southern, and Naga hills frontier. But it has some disadvantages, in that supplies have to be brought up either from the Brahmaputra by 60 miles of an imperfectly metalled cart-road, which is almost impassable in the rains, or else 50 miles from Bholagunge (the nearest point for water-carriage on the south side) by a steep and difficult bridle-path. Consequently, Shillong is one of the most expensive places in India; the moving of troops from there is not easy; and the reserve there, though equidistant from many points of danger, is within easy reach of none. For the requirements of the Khasia hills themselves, two companies would suffice.

The head-quarters of another regiment is at Dibrughur, the highest point on the Brahmaputra to which the river steamers ply; and a glance at the map will show that at present this is the most suitable place that could be chosen in Upper Assam, and the head-quarters of the remaining regiment is at Cachar (Silchar), which, being the furthest available spot on the Surma river, having the Lushais to the south, Manipore and Burma to the east, and Naga hills to the north, is obviously an obligatory spot in any system of military defence.

Next in the chain come what (for want of a better name) I may call the local reserves of detachments from these regiments, at Gowhati, Jaipore, Golaghat, and Sudyra, none of which (hardly even the last) are frontier outposts; and finally come the series of frontier posts, strictly so-called, including the Naga hills posts.

10. These frontier posts are 50 in number (excluding the above local reserve stations); and of these 50, some 36\* are held by frontier police with 734 men, and 14 by the military with 616 men.

I should explain that in Assam the police are divided into two branches—(a) the civil police, who take the ordinary station duties connected with detection and prevention of crime; and (b) the armed or frontier police, whose duty it is to guard jails and treasuries, furnish escorts, and man these frontier

\* Including the frontier police of the Naga hills reserve at Kohima.

outposts, but who have nothing to do with the ordinary criminal work of the district. These frontier police are armed with rifles, and are drilled and receive musketry instruction, and their duties are almost entirely of a military nature; and in the districts where they have to deal with hostile tribes, such as Garo and Naga hills and Cachar, they are enlisted mainly for their qualities as soldiers, from among such races as the Nepalese or the tribes inhabiting the hills and slopes of Assam, such as Jharuas, Rabhas, Cacharis, &c.

These 50 frontier outposts, as I have said, are held partly by military and partly by frontier police. A complete list of them, with their geographical distribution and the class and number of the garrison, will be found in Appendix A, from which it will be seen that the numbers garrisoning them vary in the outposts proper from about 50 men of all ranks to 14 of all ranks in those held by the military, and even dwindle down to five and seven in a few of those held by the police.

They are held, moreover, quite indiscriminately—here a police outpost, there a military, then two more police posts, then again one held by troops. There is no sort of system, such as central posts being held by troops and flanked by police, or important and dangerous posts by troops and the less dangerous by police, or even one district by troops and another by police; but it is an absolutely haphazard arrangement, with a slight tendency observable to relieve the military of the most unhealthy and of the most distant posts; but even this much has been carried out in a very erratic and uncertain fashion.

11. The inconveniences and objections to this system are obvious. The first is the want of administrative unity. The posts being garrisoned by men under different organizations, they cease at once to be a connected *chain* of posts, ready to co-operate with each other; but each post communicates with its own military or civil head-quarters only, and practically, instead of being a link in a chain, is merely an isolated garrison commanding the ground on which it stands. Patrolling between the posts is not kept up. The duty can be enforced on the police, but not on the military, unless the commanding officer approves. The district officer, who is responsible for meeting and repelling such petty raids, can do what he likes in regard to the police outposts. He can give no orders to the military without delay and circumlocution, and without obvious danger of friction.

12. From a military point of view, the objections to the present system are even greater. It breaks the hearts of commanding officers to see their regiments split up on this petty detachment duty. Small bodies of troops, rarely more than 50, and sometimes as few as 15, are sent off by themselves to distant and unhealthy posts in the jungle, where it is difficult to supply them with food, and where they remain unvisited by a European officer sometimes as much as six months together. Naturally the commanding officer complains that it is impossible to keep up proper discipline, proper drill, proper shooting figures, proper health, or proper smartness in such circumstances; and there cannot be a doubt that detachment duty, when it involves, as in these cases, enforced idleness, isolation in small parties, and absence of supervision, must have the worst effect both on the health and discipline of the men. Add to this that the provisioning and maintenance of these posts is a troublesome and expensive business; and it will be admitted that the military dislike to sending men on this duty is justified.

13. Unfortunately, as I have shown above, the frontier posts must be kept up, and detachment duty must be done; but I am quite of opinion that it need not, in Assam, be done by the *troops*. It seems to me that, theoretically speaking, this sort of small outpost duty is strictly and properly work for an armed frontier police, not for disciplined troops organized on the regimental unit. It is not the defence of the country against invasion: it is to guard against petty raids, committed by 50 or 100 savages at a time, that we keep up these posts. I conceive the legitimate duty of the military to be that of an armed reserve, collected at convenient central stations, whence they could be sent to support the police on an emergency, or to undertake the brunt of any hostile expedition outside our own territory. I may observe, in support of my views as to the proper distinction of duties, that, in the Chitagong Hill Tracts and along the Arracan frontier (I believe), where the circumstances are almost identical with those of the Assam frontier, the outpost duty is wholly and entirely taken by the armed police.

14. I next have to enquire whether such an arrangement as is here suggested is feasible; and this depends on the question whether our frontier police are up to the work (1) in efficiency, (2) in numbers. In point of efficiency, I have little hesitation in saying that for this special business—the prevention and punishment of raids among savage tribes in jungle-covered hills—the armed police are even more efficient than the military. The actual fighting is the smallest part of the task: the essential qualities are mobility and handiness. Now the troops are not easily moved, and are in fact very helpless in the jungle. I am not speaking of exceptional regiments like the 44th S. L. I., which is recruited from Nepalese, and has had very special experience of jungle warfare, but of the ordinary Poorbeah or Punjabi sepoy. The troops require a large proportion of carriage; they require to have their paths cut for them, their supplies brought to them, their stockades built for them. In fact, they require to be waited on; whereas the armed policeman is accustomed to the jungles from his infancy, cuts his own paths, runs up his own huts, fetches his own food, and waits upon himself. The sepoy is armed with a breech-loader, and is thus no doubt more useful in actual fighting; but in actual fighting, when it comes to musketry, none of the wild tribes are much to be dreaded, and there is ample evidence on the records both of the Bhootan and Lushai campaigns, and of the many subsequent expeditions that have taken place in the Naga hills, that in actual fighting the armed policeman is quite fit to take his place side by side with the sepoy. That I am not speaking without authority in the foregoing remarks, I would refer to what took place in 1875, when it was resolved to send a punitive expedition against the Nagas. Colonel Keatinge, who was at that time Chief Commissioner of Assam, found that the orders of the Supreme Government could not be carried out; and in explanation stated that, owing to panic amongst the coolies, he was unable to impress them for transport purposes, or even to guard them when impressed; and as he could not provide carriage for the baggage and provisions, the troops were unable to leave their head-quarters. Finally, a small force of 150 men was sent out; but, being under orders to return within three days, they accomplished nothing. It was not until the

coolie corps liberated by the termination of the Duffla expedition had been placed at the Chief Commissioner's disposal that effective measures were taken for the punishment of the Nagas.

Colonel Johnstone, Political Agent at Muniore, in his annual report, dated 25th February 1879, to the Government of India, notices this want of mobility in our troops. He points out that, while the Muniore raw levies were ready to march at a moment's notice, carrying their own baggage supplies, and at the end of the march building their own huts and stockades, our Native troops were unable to move without a long array of coolies, who had to do everything for them.

15. In point of efficiency, then, I say that the frontier police are even now not less efficient than

Comparative expense of military and police.

the men of ordinary Native regiments, and, from their greater mobility, would be, if armed with breech-loaders, decidedly more efficient for this particular duty. In point of expense, there can be no comparison. Each soldier of an Assam regiment costs the Government not less than Rs. 337 a year; each policeman costs Rs. 180. And if equal efficiency is granted, it is obvious that considerations of economy point to the change; but numerically the force of armed police is at present too weak to relieve the military of all the frontier posts, and will have to be increased by about 1,000 men. If this is done, I am of opinion that two Native regiments can, with perfect safety and unquestionable economy, be set free from Assam.

The following are the details of the scheme.

16. The Assam armed police force as at present constituted consists of—

13 English officers,	185 Head-constables,
8 Inspectors,	1,899 Constables,
30 Sub-inspectors,	21 Buglers,

distributed over the different districts as shown in Appendix B, and holding 35 frontier posts.

The cost of the present force of armed police, including a moiety share of European officers' salaries, is Rs. 3,43,208. Full details are given in Appendix B.

In making up the strength of the police to 3,000 men, I would propose certain modifications both as to the constitution of the force and as to salaries.

The following statement gives my views as to the constitution of a cadre of 1,000 men, and shows the salaries that would have to be paid to officers and men:—

	Rs.		Rs.
4 Inspectors, <i>i.e.</i> —		20 Buglers—	
2 Inspectors at Rs. 150		10 Buglers at Rs. 10	
2 Ditto at „ 100		10 Do. at „ 9	
Yearly cost ...	6,000	Yearly cost ...	2,280
10 Sub-inspectors, <i>i.e.</i> —		2 Armourers at Rs. 50	
2 Sub-Inspectors at Rs. 60		Yearly cost ...	1,200
8 Ditto at „ 50		Good-conduct pay at Re. 1 per 15	
Yearly cost ...	6,240	per cent. of strength, 150 by 12	
100 Head-constables—		Yearly cost ...	1,800
20 Head-constables at Rs. 25		1 Marksman's pay at Rs. 50	
20 Ditto at „ 20		Yearly cost ...	600
40 Ditto at „ 15		Clothing allowance at Rs. 8 per man,	
20 Ditto at „ 12		1,120 men ...	8,960
Yearly cost ...	20,880	Contingencies at Rs. 5 per cent. ...	7,750
1,000 Constables—		Total ...	1,62,510
200 Constables at Rs. 10			
500 Ditto at „ 9			
300 Ditto at „ 8			
Yearly cost ...	1,06,800		

On this scale of pay, the cost of 3,000 frontier police, including the full complement of Native officers, would be Rs. 1,62,510 by 3 = Rs. 4,87,530. The present frontier police force is officered by seven district superintendents and six assistant superintendents, whose salaries amount to Rs. 80,000, one-half of which, or Rs. 40,000, is debited to the frontier police, the other half (as these officers have to perform ordinary police work) is met from civil funds. It would be necessary to increase the European staff on strengthening the present police force; and I consider that four additional assistant superintendents of police would be sufficient.

The European staff would be graded as follows:—

	Rs.		Rs.
1 District Superintendent. at Rs. 1,000		4 Assistant Superintendents at Rs. 400	
2 District Superintendents at „ 800		4 Ditto at „ 300	
3 Ditto at „ 600		2 Ditto at „ 250	
2 Ditto at „ 500		Total yearly cost ...	94,800

one-half of which would be met from civil funds.

	Rs.
The total yearly cost of the proposed new frontier police would be ...	4,87,530
Half-pay of European officers ...	47,400
Total ...	5,34,930

which gives an average cost of Rs. 178½, or, roughly, Rs. 180 for each constable (excluding pension charges). For distribution of this force, see Appendix D.

17. It will be seen from Appendix C that each sepoy costs the State Rs. 337.

There is therefore a saving of Rs. 157 on each frontier police constable substituted for a sepoy.

18. Assuming that the military are relieved of the entire outpost duty of the province, the question remains as to what force is necessary for the purposes of a reserve, pure and simple.

Proposed reduction of military garrison.

I am of opinion that a garrison of two full regiments would be ample.

In the earlier part of this note I have shown what, in my opinion, the chances of danger from external attack are; and for offensive operations, should we have to undertake a serious punitive expedition against any one of the more powerful tribes, such as Nagas, Lushais, or Abors, I consider that a force of 500 men is the largest that could be effectually utilized, considering the quality of the enemy, the nature of the country, the difficulties of transport, and the want of communications.

If we had to invade Muni-pore or Bhootan, it might be necessary to increase our strength; but this would involve imperial and not merely local interests; and in either case there would be ample time to draw upon the central reserves at Calcutta.

I am of opinion that with such an armed police as I have proposed, maintained at its full strength, and armed with breech-loaders, a force of 1,200 troops would, in existing circumstances, be sufficient to ensure the safety of the province; but as regiments are now organized at a strength of 800 men, I would say two full Native regiments are ample.

To make this force effective for instant defence and punishment of the frontier tribes, it should be placed more directly than is usual at the disposal of the Chief Commissioner, not of course in matters of detail, but in the general power of ordering immediate operations of reinforcement or pursuit.

These two regiments I would distribute as follows:—

1 full regiment at Shillong.  
1 regiment { 400 men at Sudia.  
                  { 400 men at Cachar.

I prefer Sudia to Dibronghur as being somewhat healthier and more available for reinforcing the chain of posts along the north bank of the Brahmaputra, as it is 60 miles up-stream, and the troops can come down-stream rapidly, but move up-stream with difficulty. The choice, however, between these two sites is quite open; and I lay no great stress on the selection. The reasons for selecting Cachar have already been explained. With these as the stations for the central reserve, all the minor reserve stations may eventually be abandoned, though, until the police force is brought up to its full strength, the local reserves at Golaghat and Sudia must necessarily be retained.

The regiments should, if possible, be recruited from Nepalese and other hill tribes. Neither Hindustanis nor Punjabis thrive in the climate; nor are they well adapted for jungle-work. It is probable that, with only two Native regiments in Assam, a separate brigade staff will be deemed superfluous.

19. I would make one more suggestion—that if the regiments be in any sense of the word local (I mean to the same extent as the present Assam regiments are local), some special compensation should be given to the officers.

Service with Assam regiments is much disliked. The cost of living and of food and of the necessaries of life is abnormally great. Once stationed in Assam, it is difficult to obtain a transfer; and, while there is little or no chance of seeing real service, there exists always much exposure to jungle-fighting of a troublesome and inglorious character.

Officers cannot look forward to improving themselves much in their profession, owing to lack of opportunities and to the impossibility of being brigaded with first class regiments elsewhere. The sepoys and nearly all members of public departments receive Assam allowance; and the Chief Commissioner would suggest that some similar privilege be extended to British officers serving with the troops in Assam. The following allowances might perhaps be granted:—

	Rs.
Officer commanding regiment at Shillong and troops in Assam ...	300
To all officers below rank of commanding officer ...	Houses rent-free.
To all officers below rank of major ...	100
To all officers—horse allowance at Rs. 30 for each horse they are ordered by Military Department to keep.	

By these allowances officers serving in Assam would be placed on the same footing as their brother-officers in other parts of India.

The cost of these allowances would be—

	Rs.
Assam allowance to 10 captains and subalterns, at Rs. 100 per mensem	12,000
Horse allowance to 14 officers, at Rs. 30 per mensem ...	5,040
Ditto to 12 officers, at Rs. 60 per mensem ...	8,640
Special allowance to officer commanding at Shillong ...	3,600
Total ...	29,280

20. In consideration of the extra work that will be entailed upon him both in reorganizing and supervising the frontier police, the Chief Commissioner would further recommend a maximum increment to salary of Inspector-General of Police of Rs. 300 per mensem. Including this increment, the Assam allowance would be Rs. 32,880.

21. The cost (including officers) of a Native infantry regiment of 800 men receiving Assam allowance is shown in Appendix C to be Rs. 2,31,356, exclusive of the cost of rations over and above what the sepoys contribute.

22. The cost of military and police forces now maintained in Assam is—

	Rs.
4 regiments, at Rs. 2,31,356 each	9,25,424
Brigade staff	57,400
Frontier police	3,43,208
Total	13,26,032

(exclusive of loss on rations, which will be shown hereafter).

A sepoy is allowed the following ration :—

1 seer flour or rice.	1 chittack ghee.
2 chittacks dhal.	$\frac{1}{2}$ chittack salt.

This ration costs per mensem—

	Rs. A. P.
Taking flour at 6 seers the rupee, 30 seers flour	5 0 0
2 Seers dhal at 4 annas per seer	0 8 0
2 Seers ghee at Rs. 1-4	2 8 0
10 Chittacks salt	0 2 6
Total	8 2 6

The men each contribute Rs. 3-8.

Government therefore sustains a loss of Rs. 4-10-6 per mensem on each sepoy for ration-money.

Taking Rs. 4 as the loss per man, the total loss sustained on 3,200 sepoy will be Rs. 12,800 monthly, or in the year Rs. 1,53,600. This does not represent the total loss sustained by Government, as every Native commissioned and non-commissioned officer and all camp-followers get their rations at Rs. 3-8, whatever the cost may be to the State.

23. Adding this loss on rations to the cost already shown, the total cost of police and military forces now maintained in Assam is—

Rs.
13,26,032
1,53,600
14,79,632

24. The cost of proposed frontier police and troops would be—

	Rs.
2 regiments Native infantry at Rs. 2,31,356	4,62,712
Add loss on rations for 1,600 sepoy at Rs. 4 each per mensem	78,800
Assam allowance to officers	32,880
Cost of 3,000 frontier police	5,34,930
Total	11,09,322

25. The cost of combined military and police forces now maintained in

Assam has been shown to be	14,79,632
Deduct proposed expenditure	11,09,322
Total saving effected	3,70,310

26. To sum up, my proposals are—

- (1) to relieve the military of all frontier outpost duty;
- (2) to make this duty over to the frontier police;
- (3) to bring up the strength of the frontier police to 3,000 men;
- (4) to reduce the military garrison of Assam by two regiments;
- (5) to abolish the brigade staff;
- (6) to place the two remaining regiments—
  - one at Shillong,
  - one-half at Sadya or Dibrooghur,
  - one-half at Silchar,
 abolishing all other cantonments;
- (7) to give special allowances to officers serving in Assam;
- (8) to increase the allowances of Inspector-General of Police.

27. The saving would probably be in reality somewhat more than this; but enough has been said, I think, to show that the proposed changes involve a more efficient and scientific system of frontier defence, with a very substantial saving in expense.

(Sd.) S. C. BAYLEY,  
Chief Commissioner, Assam.

The 12th August 1879.

## APPENDIX A.

*Names of outposts, with strength of garrisons, on the Assam Frontier.*

SURMA VALLEY.						
SYLHET DISTRICT	Police	Adampore	...	...	32	
		Khambar Ghat	...	...	32	
		Langai	...	...	33	
			Total	...	...	97
	Military	Alenagar	...	...	46	
Chargola		...	...	45		
		Total	...	...	91	
CACHAR DISTRICT	Police	Assabao	...	...	11	
		Themkar	...	...	18	
		Hengrooma	...	...	18	
		Mugloo	...	...	18	
		Chakanchara	...	...	40	
		Ghalmachara	...	...	42	
		Mamadhar	...	...	27	
	Ghiri Ghat	...	...	19		
			Total	...	...	193
	Military	Momerktal	...	...	41	
		Nawarbond	...	...	41	
		Political Agent, Muni-pore, guard	...	41		
		Total	...	...	123	
HILL DISTRICTS.						
GARO HILLS	Police	Rongengiri	...	...	27	
		Myalguri	...	...	14	
		Ryak	...	...	14	
		Demalguri	...	...	14	
		Total	...	...	69	
KHASI HILLS	Military	Jowai	...	...	50	
				Total	...	...
NAGA HILLS	Police	Dimakpore	...	...	18	
		Diphupani	...	...	9	
		Bhendari	...	...	7	
		Dokha	...	...	44	
		Samuguting	...	...	30	
			Total	...	...	108
		Military	Reserve at Kohima	...	...	100
Military	Wokha	...	...	61		
	Samuguting	...	...	43		
	Kohima	...	...	100		
		Total	...	...	214	
ASSAM VALLEY.						
DURRUNG	Police	Helem	...	...	13	
		Balipara	...	...	13	
		Damrara	...	...	13	
		Total	...	...	39	
	Military	Oodalguri	...	...	58	
NOWGONG	...	...	...	...	NZ	
GOWHATI	...	...	...	...	NZ	
GOALPARA	...	...	...	...	NZ	
SIBSAGAR	Police	Dehapahar	...	...	9	
		Anguri	...	...	5	
		Gelleki	...	...	11	
		Behubar	...	...	14	
		Obhoy-pore	...	...	11	
		Total	...	...	50	



## APPENDIX A—concluded.

## ASSAM VALLEY—concluded.

LURHIMPORE	...	}	Police	...	Makum	...	...	17			
					Dipoo	...	...	18			
					Dikrong	...	...	11			
					Demah	...	...	11			
					Bordohune	...	...	7			
					Lalakdoleni	...	...	7			
					Borpakar	...	...	7			
					Total	...	...	78			
					}	Military	...	Pobha Mukh	...	...	46
								Seesre	...	...	24
Dibong	...	...	14								
Jaipore	...	...	26								
Total	...	...	110								
Police posts	...	...	...	...	35						
Military posts	...	...	...	...	14						
Total	...	...	...	...	49						

Excluding head-quarters, there are—

35 police outposts with 634 frontier police.

14 military outposts with 646 military.

The average strength of police outpost garrisons : strength of military outposts : : 18 : 46.

					Rs.
Total	...	...	...	...	2,66,208
Add miscellaneous charges	...	...	...	...	37,000
Half-pay of European officers	...	...	...	...	40,000
Total	...	...	...	...	3,43,208

1,899 men cost Rs. 3,43,208 = Rs. 180 per man.

## APPENDIX B.

Sanctioned strength and cost of the Frontier Police in the Province of Assam for 1878-79.

Rank.				Number.	Salary.	Sanctioned budget, 1878-79.	Total men.
					Rs.	Rs.	
GOALPARA.							
Sub-inspector	3rd grade	...	...	1	60	720	2
Ditto,	4th "	...	...	1	50	600	
Head-constable,	1st "	...	...	1	25	300	10
Ditto,	2nd "	...	...	2	20	480	
Ditto,	3rd "	...	...	3	15	540	
Ditto,	4th "	...	...	4	10	480	
Constable,	1st "	...	...	5	9	540	96
Ditto,	2nd "	...	...	41	8	3,936	
Ditto,	3rd "	...	...	50	7	4,200	
Bugler	...	...	...	1	9	108	2
Do.	...	...	...	1	8	96	
Total	...	...	...	...	...	12,000	
KAMROOP.							
Sub-inspector,	2nd grade	...	...	1	70	840	2
Ditto,	4th "	...	...	1	50	600	
Head-constable,	1st "	...	...	1	25	300	10
Ditto,	2nd "	...	...	2	20	480	
Ditto,	3rd "	...	...	3	15	510	
Ditto,	4th "	...	...	4	10	480	
Constable,	1st "	...	...	16	9	1,728	96
Ditto,	2nd "	...	...	48	8	4,608	
Ditto,	3rd "	...	...	32	7	2,688	
Bugler	...	...	...	1	9	108	2
Do.	...	...	...	1	8	96	
Total	...	...	...	...	...	12,468	
Carried over	...	...	...	...	...	24,468	

## APPENDIX B—continued.

Rank.		Number.	Salary. Rs.	Sanctioned budget. 1878-79. Rs.	Total men.
<b>DURRUNG.</b>					
	Brought forward...	...	...	24,468	
Sub-inspector,	1st grade	1	80	960	2
Ditto,	4th "	1	50	600	
Head-constable,	1st "	2	25	600	15
Ditto,	2nd "	2	20	480	
Ditto,	3rd "	3	15	540	
Special head-constable		2	12	288	
Head-constable,	4th grade	6	10	720	
Constable,	1st "	25	9	2,700	154
Ditto,	2nd "	50	8	4,800	
Ditto,	3rd "	79	7	6,636	
Bugler	...	1	10	120	2
Do.	...	1	9	108	
Total			...	18,552	
<b>NOWGONG.</b>					
Sub-inspector,	4th grade	1	50	600	1
Head-constable,	1st "	1	25	300	6
Ditto,	2nd "	1	20	240	
Ditto,	3rd "	2	15	360	
Ditto,	4th "	2	10	240	
Constable,	1st "	10	9	1,080	58
Ditto,	2nd "	18	8	1,728	
Ditto,	3rd "	30	7	2,520	
Bugler	...	1	8	96	1
Total			...	7,164	
<b>SIBSAGAR.</b>					
Sub-inspector,	1st grade	1	80	960	2
Ditto,	4th "	1	50	600	
Head-constable,	1st "	1	25	300	17
Ditto,	2nd "	3	20	720	
Ditto,	3rd "	4	15	720	
Ditto,	special	3	12	432	
Ditto,	4th grade	6	10	720	
Constable,	1st "	29	9	3,132	174
Ditto,	2nd "	58	8	5,568	
Ditto,	3rd "	87	7	7,308	
Bugler	...	1	10	120	2
Do.	...	1	9	108	
Total			...	20,688	
<b>LUKHIMPORE.</b>					
Inspector,	4th grade	1	100	1,200	1
Sub-inspector,	2nd "	1	70	840	2
Ditto,	4th "	1	50	600	
Head-constable,	1st "	2	25	600	20
Ditto,	2nd "	4	20	960	
Ditto,	3rd "	8	15	1,440	
Ditto,	special	6	12	864	
Constable,	special	34	10	4,080	200
Ditto,	1st grade	66	9	7,128	
Ditto,	2nd "	100	8	9,600	
Bugler	...	1	10	120	2
Do.	...	1	9	108	
Total			...	27,540	
<b>SYLHET.</b>					
Inspector,	2nd grade	1	200	2,400	1
Sub-inspector,	2nd "	1	70	840	2
Ditto,	4th "	1	50	600	
Head-constable,	1st "	3	25	900	21
Ditto,	2nd "	3	20	720	
Ditto,	3rd "	7	15	1,260	
Ditto,	special	4	12	576	
Ditto,	4th grade	4	10	480	
Carried over Sylhet			...	7,776	
Carried over			...	98,412	

## APPENDIX B—concluded.

Rank.		Number.	Salary.	Sanctioned budget, 1878-79.	Total men.
			Rs.	Rs.	
	Brought forward	...	...	98,412	
	Brought forward Sylhet	...	...	7,776	
Constable, 1st grade	...	60	9	6,480	232
Ditto, 2nd "	...	100	8	9,600	
Ditto, 3rd "	...	122	7	10,248	
	Total	...	...	34,104	
<b>CACHAR.</b>					
Inspector, 3rd grade	...	1	150	1,800	1
Sub-inspector 2nd "	...	1	70	840	5
Ditto, 3rd "	...	1	60	720	
Ditto, 4th "	...	3	50	1,800	
Ditto, 4th "	...	3	25	900	
Head-constable, 1st "	...	6	20	1,440	38
Ditto, 2nd "	...	14	15	2,520	
Ditto, 3rd "	...	15	12	2,160	
Ditto, special	...	64	10	7,680	339
Constable, special	...	137	9	14,796	
Ditto, 1st grade	...	88	8	8,448	
Ditto, 2nd "	...	50	7	4,200	
Ditto, 3rd "	...	2	10	240	6
Bugler	...	4	9	432	
Do.	...	...	...	...	...
	Total	...	...	47,976	
<b>GARO HILLS.</b>					
Inspector, 1st grade	...	1	250	3,000	3
Ditto, 3rd "	...	1	150	1,800	
Ditto, 4th "	...	1	100	1,200	
Sub-inspector, 1st "	...	1	80	960	6
Ditto, 2nd "	...	1	70	840	
Ditto, 3rd "	...	1	60	720	
Ditto, 4th "	...	3	50	4,800	
Head-constable, 1st "	...	4	25	1,200	24
Ditto, 2nd "	...	4	20	960	
Ditto, 3rd "	...	10	15	1,800	
Ditto, special	...	6	12	864	
Constable, special	...	50	10	6,000	300
Ditto, 1st grade	...	150	9	16,200	
Ditto, 2nd "	...	100	8	9,600	
Bugler	...	1	10	120	2
Do.	...	1	9	108	
	Total	...	...	50,172	
<b>NAGA HILLS.</b>					
Inspector, 3rd grade	...	1	150	1,800	2
Ditto, 4th "	...	1	100	1,200	
Sub-inspector, 1st "	...	1	80	960	6
Ditto, 2nd "	...	1	70	840	
Ditto, 3rd "	...	1	60	720	
Ditto, 4th "	...	3	50	1,800	
Head-constable, 1st "	...	4	25	1,200	24
Ditto, 2nd "	...	4	20	960	
Ditto, 3rd "	...	10	15	1,800	
Ditto, special	...	6	12	864	
Constable, special	...	130	10	15,600	200
Ditto, 1st grade	...	70	9	7,560	
Bugler	...	2	10	240	2
	Total	...	...	35,544	
<b>GRAND TOTAL</b>				...	2,60,208

## APPENDIX C.

## Cost of Regiment Native Infantry.

				Monthly.		
				Rs.	A.	P.
<b>BRITISH OFFICERS (a).</b>						
1 Colonel commanding	...	...	...	1,427	14	0
1 Major, second-in-command, Rs. 640-14 plus Rs. 270	...	...	...	910	14	0
1 Captain and wing-commander, Rs. 375-1-6 plus Rs. 230	...	...	...	605	1	6
1 Lieutenant and adjutant, Rs. 225-12 plus Rs. 250	...	...	...	475	12	0
1 Lieutenant and quartermaster, Rs. 225-12 plus Rs. 150	...	...	...	375	12	0
1 Captain and wing officer, Rs. 375-1-6 plus Rs. 100	...	...	...	475	1	6
1 Lieutenant and wing officer, Rs. 225-12 plus Rs. 100	...	...	...	325	12	0
1 Surgeon	...	...	...	600	0	0
<b>Total</b>				5,198	3	0
<b>NATIVE OFFICERS (b).</b>						
4 Subadars at Rs. 100	...	...	...	400	0	0
4 Ditto at Rs. 80	...	...	...	320	0	0
4 Jemadars at Rs. 50	...	...	...	200	0	0
4 Ditto at Rs. 40	...	...	...	160	0	0
<b>Total</b>				1,080	0	0
<b>NATIVE NON-COMMISSIONED OFFICERS (c).</b>						
40 Havildars at Rs. 14	...	...	...	560	0	0
40 Naiks at Rs. 12	...	...	...	480	0	0
<b>Total</b>				1,040	0	0
<b>SEPOYS (d).</b>						
800 Sepoys at Rs. 7	...	...	...	5,600	0	0
<b>BUGLERS (e).</b>						
16 Buglers at Rs. 7	...	...	...	112	0	0
<b>STAFF (f).</b>						
1 Drill havildar	...	...	...	5	0	0
1 Drill naik	...	...	...	2	8	0
8 Pay havildars at Rs. 5	...	...	...	40	0	0
8 Color havildars at Rs. 2	...	...	...	16	0	0
2 Bugle-majors at Rs. 5	...	...	...	10	0	0
1 Subadar major	...	...	...	50	0	0
1 Native adjutant	...	...	...	17	8	0
1 English schoolmaster	...	...	...	8	0	0
1 Vernacular schoolmaster	...	...	...	9	0	0
<b>Total</b>				158	0	0
<b>CAMP-FOLLOWERS (g).</b>						
8 Lascars at Rs. 6	...	...	...	48	0	0
8 Bhisties at Rs. 7	...	...	...	56	0	0
8 Sweepers at Rs. 7	...	...	...	56	0	0
1 Tindal	...	...	...	9	8	0
1 Chowdhry	...	...	...	11	0	0
2 Bildars at Rs. 10	...	...	...	20	0	0
1 Mutsuddi	...	...	...	7	0	0
2 Weighmen at Rs. 6	...	...	...	12	0	0
<b>Total</b>				219	8	0
<b>BATTA (h).</b>						
800 Sepoys at Rs. 2-8	...	...	...	2,000	0	0
80 Non-commissioned officers at Rs. 2-8	...	...	...	200	0	0
16 Buglers at Rs. 2-8	...	...	...	40	0	0
<b>Total</b>				2,240	0	0
<b>GOOD-CONDUCT PAY (i).</b>						
Approximately	...	...	...	1,000	0	0

## APPENDIX C—continued.

					Monthly.		
CONTINGENT ALLOWANCES (j).					Rs.	A.	P.
Mess	...	...	...	...	100	0	0
Band	...	...	...	...	100	0	0
School	...	...	...	...	20	0	0
Repair of butts at Rs. 4	...	...	...	...	8	0	0
2 Wing-commanders at Rs. 85	...	...	...	...	170	0	0
Quartermaster	...	...	...	...	25	0	0
Total					423	0	0
SUBORDINATE MEDICAL (k).							
1 Hospital assistant	...	..	...	...	30	0	0
2 Hospital assistants at Rs. 25...	...	...	...	...	50	0	0
1 Medical pupil at Rs. 5	...	...	...	...	5	0	0
Total					85	0	0
HOSPITAL ESTABLISHMENT (l).							
1 Shop coolie	...	...	...	...	7	0	0
2 Bhisties at Rs. 7	...	...	...	...	14	0	0
1 Sweeper	...	...	...	...	7	0	0
1 Gooyah	...	...	...	...	7	0	0
1 Mate bearer	...	...	...	...	10	0	0
3 Bearers at Rs. 9...	...	...	...	...	27	0	0
Total					72	0	0
HALF-ALLOWANCE (m).					Annually.		
800 Men at Rs. 4...	...	...	...	...	3,200	0	0
A sepoy is allowed following ration daily—							
1 seer flour or rice.				1 chittack ghee.			
2 chittacks dhall.				½ chittack salt.			
Assuming selling price of flour or rice to be 6 seers per rupee—							
dhall at 4 annas per seer,							
ghee at Rs. 1-4 per seer,							
salt at 4 annas per seer,							
the monthly cost of ration is—							
Flour or rice	...	...	...	...	5	0	0
Dhall	...	...	...	...	0	8	0
Ghee	...	...	...	...	2	8	0
Salt	...	...	...	...	0	2	6
Total					8	2	6
Each sepoy contributes	...	...	...	...	3	8	0
Loss to Government	...	...	...	...	4	10	6
or say Rs. 4 per sepoy.							
KIT ALLOWANCE (n).							
60 Recruits at Rs. 30	...	...	...	...	1,800	0	0
MUSKETRY PRIZES (o).							
Best instructor	...	...	...	...	60	0	0
Best shot	...	...	...	...	25	0	0
Second best shot	...	...	...	...	15	0	0
50 marksmen at Rs. 5	...	...	...	...	250	0	0
Best judge of distance	...	...	...	...	10	0	0
8 Best ditto in company	...	...	...	...	40	0	0
Total					400	0	0
CLOTHING (p).							
912 Men at Rs. 8 each (value of clothing given)	...	...	...	...	7,296	0	0
MILITARY REWARDS (q).					Monthly.		
Order of British India	...	...	...	...	60	0	0
Order of merit	...	...	...	...	20	0	0
Total					80	0	0

## APPENDIX C—concluded.

For 12 months—					Annually.		
(a) =	...	...	...	...	62,354	4	0
(b) =	...	...	...	...	12,960	0	0
(c) =	...	...	...	...	12,480	0	0
(d) =	...	...	...	...	67,200	0	0
(e) =	...	...	...	...	1,844	0	0
(f) =	...	...	...	...	1,896	0	0
(g) =	...	...	...	...	2,634	0	0
(h) =	...	...	...	...	26,880	0	0
(i) =	...	...	...	...	12,000	0	0
(j) =	...	...	...	...	5,076	0	0
(k) =	...	...	...	...	1,020	0	0
(l) =	...	...	...	...	864	0	0
(m) =	...	...	...	...	960	0	0
					<hr/>		
					2,07,548	4	0
(n) =	...	...	...	...	3,200	0	0
(o) =	...	...	...	...	1,800	0	0
(p) =	...	...	...	...	400	0	0
(q) =	...	...	...	...	7,296	0	0
					<hr/>		
					Total	...	2,20,244 4 0
Add 5 per cent. contingencies	...	...	...	...	...	11,012	0 0
					<hr/>		
					2,31,256	4	0
Add loss on rations at Rs. 4 per sepoy monthly	...	...	...	...	...	38,400	0 0
					<hr/>		
					Total	...	2,69,656 4 0

Total cost of one Native infantry regiment (annually) in Assam is Rs. 2,69,656, or average cost of each of 800 men is Rs. 337 (exclusive of cost of doolie-bearers, and calculated at a minimum for loss on rations, as Native officers, commissioned and non-commissioned, and also camp-followers, get their rations at reduced rates).

## APPENDIX D.

Statement showing the strength and distribution of existing Frontier Police Force, and the strength and distribution of new proposed Force which will take over all outposts now garrisoned by the troops.

## SURMA VALLEY.

Existing distribution.		Frontier police.	Proposed distribution.		Frontier police.
CACHAR	...	339	In Cachar outposts are garrisoned by	197	
Distributed as follows:—			When Cachar military outposts are taken over, there will be required an additional force of	...	172
Silchar ordinary police guards, treasury guards, &c.	...	39			
North Cachar police guards, Assaloo, &c.	...	58	The Sylhet outposts are garrisoned by	160	369
Manadhar and Jhiri Ghat police guards	...	50	Total strength of garrisons	...	529
Political Agent, Manipore's police escort	...	50			
Leaving a reserve of	...	—197	Allowing a reserve of 100 per cent. of effective strength to provide for guards, escorts of prisoners, &c. &c.	...	529
Military guards in Cachar district occupying frontier posts	...	142			
	...	172	Total frontier police force required for Surma Valley will be 1,058, or approximately	...	1,000
SYLHET	...	282	Existing force of frontier police	...	621
Distributed as follows:—			Additional police force required	...	379
Sylhet station police guards	...	70			
Sylhet frontier	...	90			
Leaving a reserve of	...	—160			
	...	122			
Total frontier police force in Surma Valley	...	621			

## APPENDIX D—concluded.

## HILL DISTRICTS.

<i>Existing distribution.</i>		<i>Proposed distribution.</i>	
Khasia hills frontier police	... Nil	The military force to be withdrawn from	
Garo hills	... 500	the Naga Hills and replaced by a force of	
Naga hills	... 200	frontier police constables.	
		Proposed force, Garo hills	... 250
Total frontier police in hill districts	... 500	Ditto, Khasia hills	... 60
		Ditto, Naga hills	... 400
Naga hills military frontier outposts'		Total frontier police in hill districts	... 710
guards	... 250	Increase in frontier police under proposed	
		scheme	... 210

## ASSAM VALLEY.

<i>Existing distribution.</i>		<i>Proposed distribution.</i>	
The frontier police force at present main-		The frontier outposts now held by the mili-	
tained is—		tary will be taken over by the frontier	
Goalpara	... 96	police, which will be increased as fol-	
Kamroop	... 96	lows:—	
Durrung	... 154	Goalpara	... 96
Nowgong	... 58	Kamroop	... 150
Sibsagar	... 174	Durrung	... 178
Lukhimpore	... 200	Nowgong	... 82
		Sibsagar	... 250
Total frontier police force in Assam	... 778	Lukhimpore	... 650
		Total proposed frontier police force for	
Military guards occupying frontier posts		Assam valley	... 1,406
as follows:—		Existing frontier police force	... 778
Gowhati	... 212		
Oodaljari	... 58	Additional frontier police force re-	
Tezpore	... 13	quired	... 628
Golaghat	... 104		
Sadiya	... 125	Total proposed frontier police force in	
Pohhamukh	... 46	Assam	... 3,000
Seesre	... 24	Proposed increase in frontier police force	... 1,101
Dehong	... 14	Military relieved from frontier outpost duty	1,044
Jaipore	... 26		
Total military employed on outposts'			
garrison duty in Assam valley	... 622		
Total existing frontier police force in			
Assam	... 1,899		

No. 1669, dated Shillong, 11th September 1879.

From—L. HARE, Esq., Assistant Secretary to the Chief Commissioner of Assam,

To—The Secretary to the Army Organization Commission, Simla.

In continuation of the note by the Chief Commissioner of Assam on the military requirements of this province, I am directed to forward herewith a copy of a letter No. 6080, dated 13th ultimo, from the Controller of Military Accounts, Calcutta, enclosing a statement showing the cost of the regiment of Native infantry stationed in Assam for 1878-79.

With reference to the figures given in paragraphs 22 and 23 of the note, I am directed to say that the Chief Commissioner has considerably under-estimated the savings that would be effected by the substitution of Frontier Police for the two Native regiments.

No. 6080, dated Calcutta, 18th August 1879.

From—COLONEL T. B. HARRISON, Controller of Military Accounts,

To—The Secretary to the Chief Commissioner of Assam.

In continuation of my letter No. 4174, dated 2nd July 1879, I have the honor to forward herewith a statement showing the cost (exclusive of pay and allowances) of the regiments of Native infantry stationed in Assam for the year 1878-79.

2. The total amount was Rs. 3,53,271; and this sum may be taken as the average for the past three years.

Statement showing the cost in 1878-79 of the Native troops stationed in Assam.

Grants.	Heads of Service.	Debited amount.	Total.
	<i>Adjutant-General's Department.</i>	Rs.	Rs.
	Travelling and outstation allowances ... ..	7	
	<i>Divisional and Brigade Staff.</i>		
	Travelling and outstation allowances ... ..	224	231
IV	Travelling and outstation allowances ... ..	9	
	Godown establishments ... ..	3,362	
	Cattle establishments and marching allowances ... ..	5,463	
	Doolie-bearers and marching allowances ... ..	826	
	Provisions for Natives ... ..	2,61,272	
	Compensation to Natives for dearness of provisions ... ..	1,024	
	Feed of Commissariat cattle (elephants) ... ..	8,396	
	<i>Hire of Transport.</i>		
	Movements of troops ... ..	7,884	
	Commissariat ... ..	601	
	Clothing ... ..	39	
	Barrack ... ..	3	
	Medical ... ..	205	
	Ordnance ... ..	242	
	<i>Inland water charges.</i>		
	Movements of troops ... ..	11,202	
	Commissariat ... ..	4,491	
	Clothing ... ..	5	
	Barrack ... ..	39	
	Medical ... ..	513	
	Ordnance ... ..	21	
	Regimental equipments and camp contingencies ... ..	5	
	Cattle-gear, implements, godown furniture, and contingencies ... ..	1,325	
	<i>Miscellaneous.</i>		
	Incidental ... ..	755	3,07,652
VI	Making clothing, great-coats, and cloaks for European and Native troops.	1,399	
	Packing materials and charges ... ..	60	
	Europe stores ... ..	10,139	12,098
VII	Purchase of barrack bedding ... ..	37	
	Cost of supplies for lighting of barracks and hospitals ... ..	610	
	Cost of miscellaneous supplies for barracks and hospitals ... ..	844	1,491
IX	Cost of medicines and medical stores provided in India ... ..	5,199	
	Cost of bedding and equipments ... ..	255	5,454
X	Ordnance stores and camp equipage ... ..	31,315	31,315
	GRAND TOTAL ... ..	...	3,53,271

FORT WILLIAM;  
The 13th August 1879.

(Sd.) T. B. HARRISON, Colonel,

Controller of Military Accounts.

## C.—NORTH-WESTERN PROVINCES AND OUDH.

No. 2449, dated Naini-Tal, 4th September 1879.

From—C. ROBERTSON, Esq., Secretary to Government, North-Western Provinces and Oudh,  
To—The Secretary to the Government of India, Military Department.

With reference to your letter No. 204 S.B., dated 7th July 1879, and subsequent reminder, calling for information on certain points in connection with the military requirements of the North-Western Provinces and Oudh, I am directed to forward, for the information of His Excellency the



Governor-General in Council, abstracts of the replies received from the officers consulted, in regard to points (a), (b), (c), (d), (e), (f), (g), and (h), and to communicate the following remarks.

\* \* \* \* \*

3. Of the ten points mentioned in paragraph 2 of your letter, the tabular statement enclosed gives details in regard to points (a), (b), (e), (f), and (g) as accurately as with the very short time allowed was possible.

The figures of (a) and (b) are taken from the North-Western Provinces and Oudh census reports. The details of Europeans and Eurasians are not quite accurate, though they are sufficiently so for the present inquiry; for the figures for Lucknow and Fyzabad in the Oudh census included the military as well as the civil element: in these cases the numbers roughly estimated by district officers and Commissioners have been adopted. Sitapur is blank, but the numbers are insignificant. The details in connection with points (e), (f), and (g) have been taken from a report by the Inspector-General of Police, North-Western Provinces and Oudh. In regard to the question of efficiency of the police, I am to invite special attention to the remarks in the last column of the statement, which show the extent to which (it is believed) the police force of these provinces can deal with riots and such like disturbances.

4. The subject of point (c), state of feeling, is a very wide one, and closely connected—so closely as to be incapable of entirely separate treatment—with point (d) (elements of danger). The general substance of the replies on this question points to the following conclusion.

On the part of the great landholders the general feeling is one of loyalty. They hold their property by a tenure which would in many cases be very uncertain were it not for the strong hand of the Government. Their dignity is recognized, their honor is protected, their position is assured, by the British Government. In short, they have everything to gain and nothing to lose by any subversion of the present state of things.

The trading classes are in much the same position. It is only under a really strong Government that they could hope to be able to carry on their occupations in peace, and to enjoy in security the fruits of their labor.

As regards the great mass of the rural population, the general feeling is one of contented indifference—not much active loyalty, but no active disloyalty and no apprehensions of it, with a bias, slight but obvious, towards the established order of things. The lower stratum of the Muhammadans, and such of the higher middle class of Muhammadans as are too proud to beg and too lazy to work, constitute the only really dangerous classes in most part of these provinces. But they are not united; they have no leaders to look up to, and no principle of action to guide them in a definite line of policy, beyond a religious antagonism, based on bigotry and the desire for plunder.

The positive loyalty of the people in the Cawnpore district, vouched for strongly by the Magistrate, is, His Honor apprehends, a rose-coloured reflection of his own friendly feeling to the people among whom he has long served. In curious contrast to this is the opinion expressed by the Magistrate of Allahabad, who speaks of the general feeling as one of apathetic disaffection. The city of Lucknow has the unenviable reputation of decided, but impotent, disaffection to British rule; and His Honor has no doubt as to the truth of this. The glories of the Nawabi are still fondly remembered by crowds of discontented pensioners and starving hangers-on, who contrast the present with the past state of affairs in a manner very unfavorable to the former, and cordially hate our rule.

With these exceptions, which are sufficiently marked to be noteworthy, the general summary given above may be accepted as describing pretty accurately the prevailing state of things. It need hardly be added that where our rigid system of law has operated harshly, the feeling is not friendly. Thus dispossessed landholders all over the province would, from their own standpoint, welcome a change; but this is not so much from dislike to our Government as from hatred to the new men whom our measures have operated to substitute for themselves.

5. To point (d) (elements of danger) much that has been said on point (c) applies. The following is a brief summary of the replies received from the various officers:—

*Meerut Division.*—A serious negative element of danger is the want of personal influence of district officers over the Native population, due to constant changes, and to the absorption of district officers in petty work.

*Rohilcund Division.*—After instancing such special points as the low-class Muhammadans, the inflammable cities of Bareilly and Moradabad, the Native State of Rampur (a potential, not a present, danger; the present Nawab is loyally disposed), the Commissioner sums up the main elements of danger as under:—

- (a) Decay of landed gentry and transfer of hereditary property.
- (b) Removal of power from the landlord; influence of the patwari.
- (c) Fall in value of land.
- (d) Want of employment for the younger sons of Muhammadan families.

The first two cases are obvious enough: they are the inevitable results of a rigid and just system of government, coupled with an improvident and extravagant landed class, jealous of old privileges. The third calls for no remark. As regards the fourth, I am to say that the Government has lately done some thing to alleviate this evil.

*Agra Division.*—The latent element of danger is chiefly that of the low-class Muhammadans. There is not, however, any cause for alarm, unless it be in regard to the Native States bordering the division—an important point in view of possible complications.

*Allahabad Division.*—There are no special elements of danger here, beyond that connected with the Native States in the districts of Hamirpur and Banda. At Allahabad itself the central and district jails, with over 3,000 bad characters, might become a source of trouble. The Magistrate's remarks, as to general but apathetic disaffection, have already been referred to.

*Benares Division.*—In the trans-Gogra districts, the contiguity of Nepal, the small number of Europeans, and the paucity of means of communication, are indicated as possible elements of danger in times of trouble.

*Jhansi Division.*—A naturally turbulent people, the contiguity of Gwalior, and the isolation of the head-quarters (owing to want of rail and telegraph), are mentioned by the Commissioner under this head.

*Kumawn Division.*—No elements of danger exist here. This is the view of the Commissioner, who is thoroughly acquainted with the country and people.

*Oudh.*—In Oudh there is nothing special to notice, except as regards the city of Lucknow (already referred to under point c), and the high-class Brahmans and Thakurs of Fyzabad. His Honor believes that the general feeling in Oudh is favorable rather than otherwise to our rule; and that the dangerous classes are less numerous here than in the older province.

Of general grounds of possible elements of future danger there is, Sir George Couper is constrained to confess, no lack. Our rigid revenue system, resulting in constant transfers of landed property; our still more rigid judicial system, with its complications and technicalities; the necessarily narrow field open to younger sons of the old Muhammadan families; the predatory instincts of certain classes; the bigoted animosity of the lower Muhammadans, who hate us as infidels, as superseders, and as just and strong rulers: these are all instances to the existence of which we cannot shut our eyes. Finally, there is little doubt that the late increase in direct taxation has embittered many who might otherwise have been loyally inclined.

Of overt elements of danger there are few in these provinces. The contiguity of Native States is certainly one; and perhaps it is of all the most important. The isolation of such tracts as Jhansi and Gorakhpur is another. In both cases, the presence of British troops is the only safeguard. The riff-raff of the larger Muhammadan cities, such as Lucknow and Bareilly (with one or two others of less importance), form a dangerous element, ready to break out on a favorable opportunity, and needing something more than the ordinary police to overawe them and hold them in check.

6. Before closing the remarks on this head, I am to invite the particular attention of His Excellency in Council to three points.

The first is the decreasing influence of district officers, alluded to by the Commissioner of Meerut. It is most necessary, in His Honor's opinion, to retain an officer as long as possible, consistent with the exigencies of the public service, in charge of a district. In this way alone can he become intimate with the people, gain their confidence, and be able to influence them. The constant changes are mainly due to the new furlough rules. Under these rules officers may run home every three years; and many are tempted to avail themselves of this privilege. The result this year was that nearly two-thirds of the districts changed hands. The absorption of the Magistrate and his covenanted assistants in petty work of a routine character is also to be deprecated.

The second point is the recent increase of direct taxation. This has unquestionably done much to render our rule unpopular with both the trading and landed classes. In the case of traders this might, to a certain extent, be disregarded; but in that of landholders—a more numerous and influential body—the Government cannot so easily overlook it; and the fact must be borne in mind.

With regard to the third point, I am to say that if one of the objects of the Commission is to reduce the element of military force, by enlarging the scope of civil influence in winning the good-will of the people, they will deserve well of the country if they propose some modification of the functions of the Legislative Department of the Government of India as at present constituted.

Even before the mutiny our civil law and procedure were such that the Natives declared that the evils arising therefrom far counterbalanced the advantages offered by our rule; and the Lieutenant-Governor believes that if the populations of this empire could be polled, it would be found that they are of the same opinion still.

Both the people and the executive are hampered and tied down by the operation of strict laws, which there is no getting free from, however advantageous or even necessary it may be to depart occasionally from their strict letter. It may be very desirable, for example, for all the parties concerned to do a certain thing; but it is found that the proposal is to some extent opposed to a certain section of a certain law, and the consequence is that nothing can be done. It may be right to do the thing; it may be certain that it had not occurred to the framers of the law that such a contingency would arise, or they would assuredly have made provision for it; but nevertheless nothing can be done until the time comes for a general revision of the law,—it may be years afterwards. All this might be remedied by a modification of the present system. When it is necessary to pass an enactment to legalize any measure which the Government thinks it expedient to adopt, the Bill might run: "Whereas it is expedient to provide by law for carrying out a certain measure; It is hereby declared that this measure shall be carried out under rules to be framed by the Local Government, which, when they have received the sanction of the Government of India, shall have the force of law.

"It is further enacted that, subject to the same sanction, the Local Government shall have power at any time to add to, modify, or alter the said rules."

This, Sir George Couper believes, would be all that would be necessary in the interests of justice, equity, and good conscience, as opposed to the interests of law; and he feels certain that the step would be hailed with the greatest delight by the entire community, with the exception of the lawyers. In the event of any difficulty arising, such as that referred to above, the necessary addition or alteration could at once be made to the rule. Some such arrangement would certainly suffice to meet most local requirements. For Acts embracing in their scope the entire empire, it might be necessary to be somewhat more elaborate in the preliminary procedure; but here, too, action ought to be in the direction above indicated. And it may further be questioned whether such general Acts are not now too numerous, and whether it would not be better for the Supreme Government to declare what is wanted, and then leave each Local Government to carry out its wishes in the way best suited to the people with which it has to deal, subject of course to the ultimate sanction of the Government of India.

The Lieutenant-Governor believes that the time has arrived when it is imperatively necessary to simplify our law and procedure in the manner above described, or in some other manner. The evil has attained gigantic proportions, and is increasing daily. As already said, the Executive is hampered

and the people are harassed and fleeced. The only class who are gainers by the system are the vakils and mukhtars who throng our courts, and who, His Honor believes, are more dreaded and detested by the rest of the community than any other class, not excepting dacoits. But, under existing circumstances, they are a necessary evil; for the business of the law courts, as at present constituted, could hardly be carried on without them. It is worthy of remark that at the recent examination of candidates for the office of pleader held in these provinces, nearly one thousand passed. It seems to Sir George Couper, positively startling to think that every year the number of this class is increasing in this way; for they can only get a living by fleecing the ignorant and poor. If, however, some such measure as His Honor has indicated above were carried out, their occupation would mainly be gone; for it is they who, by picking holes in Acts, and by showing that a proposal, though perfectly right in itself, is opposed to such and such a section of such and such an Act, cause the difficulties and embarrassments which His Honor complains of, and which strike at the very root of executive efficiency and popular content.

It is, however, too late, His Honor fears, to go back to the "non-regulation system," pure and simple, although it was the one most approved of by the people, and is still in force in the main in Native States. The people themselves, having been so long accustomed to rely on legal aid, would probably be reluctant to revert to it. But if Acts were simplified and made susceptible of immediate correction or addition whenever they were found defective, the evils of the present system, if they would not be altogether removed, would at least be very greatly modified, so much so that it could be worked smoothly and at a vast diminution of expense both to the Government and the people; while our prestige would be restored and maintained by the vastly improved relations which would thus spring up between the people on the one side and the Government on the other.

If it be said that this would be a retrogressive measure, the Lieutenant-Governor would ask why a retrogressive step should not be taken, provided only that it be right. He does not see why this should be the only country in which it is impossible to draw back when it is shown that we have gone too far. In England, only a few years ago, a new measure of army reform was introduced, which it was thought would prove a great success; and now, if telegrams are to be trusted, it has proved to be such an utter failure that the authorities are about to revert to the old system. Sir George Couper does not see why we should not follow this example in India, if the necessity or expediency of such a step be demonstrated.

7. Point (B) deals with European and Eurasian population considered under the sub-heads of—(1) strength, (2) weakness, (3) improvement by organization.

Under this head it is to be noted that the figures given by district officers, being only approximate and of a later date, do not quite coincide with those for the European and Eurasian population given under (b) in the tabular statement.

The following is a brief *resumé* of the several replies:—

*Meerut Division.*—In the Dun, which is exceptional, the Native population is small, and the European and Eurasian considerable. Combatant strength, aided by the Gookha pensioners, may be said to be considerable. Meerut and Ghaziabad have 250 able-bodied men, partly enrolled as volunteers; Saharanpur and Roorkee have 220 efficient to 250 non-efficient, with organized volunteers in both centres. All of these may be said to possess sufficient strength to protect the women and children. In Aligarh there are some 60 men to 70 women and children; no source of strength for combatant purposes, but no direct element of weakness, as the railway is at hand.

Elsewhere in the division the numbers are insignificant.

The *Rohilkhand Division* is decidedly weak. In Bareilly alone is there any considerable number of Europeans and Eurasians—some 50 men to 150 inefficient, useless as a combatant body and insufficient for protective purposes.

The *Agra Division* has only one district—that of Agra itself—with any pretensions to combatant power. In Agra there are 360 men (210 of whom are volunteers) to nearly 1,200 women and children. The Fort being available, there is no direct element of weakness.

The *Allahabad Division* has, in Cawnpore and Allahabad, two fairly large centres, in both of which there is a certain amount of combatant strength. Cawnpore has 170 able-bodied to 450 inefficient; Allahabad, 600 able-bodied to 1,700 inefficient.

In both places there are organized bodies of volunteers; and Allahabad has the fort to fall back upon.

The *Benares Division* has no centre of any importance. Ghazipur possesses about 50, and Benares about 90 capable men. In all the other districts the numbers are small. The Chunar Fort would of course be available. A volunteer corps exists at Ghazipur. The number of women and children is large all over the division; and this would be a serious element of weakness.

The *Jhansi Division* has no centre of any size, and its isolation is a distinct source of weakness.

The *Kumaun Division* (except in the hot season) has no large centre; but the circumstances of this tract are quite exceptional.

In *Oudh* the numbers of Europeans and Eurasians are so small, except in Lucknow, as to be useless from a combatant standpoint. Lucknow has some 900 capables to 1,800 inefficient; many of the former drilled and armed, sufficient for protection and utilizable on occasion for attack.

Summing up, the only centres of combatant strength are the following:—

The Dun.	Agra.
Meerut (Ghaziabad).	Cawnpore.
Saharanpur (Roorkee).	Allahabad.

Lucknow.

And in most of these the large number of people to be protected tends to weaken this strength seriously. Where there is no combatant strength, there is of course weakness; that is, all over the provinces except at the above centres.

As regards the question (third clause of point A) of the organization of the European and Eurasian population, I am to say that this can best be discussed in connection with points (i) and (j).

8. Point (i) refers to compulsory enlistment.

The general opinion seems to be against the measure. At all large centres, where there is combatant strength, there are already organized bodies of volunteers, who would form a nucleus in case of danger. Sir George Couper is inclined, however, to agree with the Lucknow Commissioner, that enrolment in the Volunteers should be made compulsory on all Europeans and Eurasians; and certainly in the case of such as are in the service of Government should be made a condition of appointment, so that all might acquire familiarity with the use of the rifle and the elements of drill: the members to be enrolled in a reserve body when they had served a certain time in an active corps, where regular attendance is enforced. In connection with this subject, I am to say that His Honor has taken every opportunity to impress on all at head-quarters the importance of the movement, and has used his influence to induce all employes of the large offices to join the Volunteers. But His Honor is strongly of opinion that, whether enlistment be made compulsory or not, there must be more encouragement on the part of Government to those concerned in the movement.

9. This leads naturally to the last point (j) alluded to in your second paragraph—development of the volunteer system. Such development mainly rests with the Government. That the system should be heartily encouraged by the Government in every way possible may be taken as admitted, and in this respect much remains to be done. The measures His Honor has already recommended, and which he would again press on the consideration of His Excellency in Council, are (1) the appointment of a paid and professional adjutant to each battalion of volunteers. Such an officer is of immense help, both to the officers and men. One such officer has already been appointed in these provinces, with the best results. (2) The encouragement of the movement by the grant of liberal prizes, and in other ways, such as an increase to the pension of Government servants who have proved themselves efficient volunteers. In connection with this subject, I am to invite attention to the note by Major C. A. Dodd, Commandant of the Allahabad Volunteer Rifle Corps, on the volunteer movement in India, forwarded with the letter from this office No. 1955, dated 12th August 1878, to which His Honor has very little to add.

10. In the third paragraph of your letter the opinion of this Government is asked for on the subject of the military requirements of these provinces; and with reference to this I am to submit the following remarks. The latest orders of the Government of India in regard to the distribution of the European army appear to be contained in the Resolution communicated with the letter from the Public Works Department No. 38, dated 10th July 1872. Similar orders in regard to the distribution of the Native army have not been traced; and, judging by the latest Army List, it would seem that those orders have not yet been completely carried out. His Honor has not, in the short time allowed for replying to your questions, been able to ascertain exactly the strength of force sanctioned for each military station. Assuming, however, that the sanctioned force is that entered for Europeans in the Resolution above referred to, and for Natives that which is indicated in the Army List as ordinarily stationed in each cantonment, the conclusions to which His Honor has come are as follows:—

A.—The forces at present sanctioned for the stations noted on the margin ought to be maintained in undiminished strength, for reasons which will now be indicated in each case.

Oudh	{	1. Lucknow.	N.-W. Provinces.	{	6. Cawnpore.
		2. Fyzabad.			7. Allahabad.
N.-W. Provinces...	{	3. Bareilly.			8. Chunar.
		4. Jhansi.			9. Benares.
		5. Lalitpur.			

(1) *Lucknow*.—This garrison should be able to guard the fort, overawe the city, and to spare a force for service in the field wherever it may be required in Oudh. If this is done, the force at Sitapur can be withdrawn.

(2) *Fyzabad*.—This force must be maintained to check disaffection in neighbouring districts, and to guard the Nepal frontier.

(3) *Bareilly* is the capital of Rohilcund. The garrison should be able, if required, to spare a force for the suppression of a rising or serious disturbance in any part of the division, in the other principal towns of which, as well as in Bareilly itself, there are not a few elements of danger. If this garrison is maintained, the force at Moradabad can be diminished, and that at Shahjahanpur withdrawn.

(4) *Jhansi* is difficult of access, and borders on Native States filled with people of turbulent disposition, whence unexpectedly inroads may at any time be made.

(5) *Lalitpur* ought to retain its detachment of a Native infantry regiment. It is isolated, nearly surrounded by Native States in which serious disorder may at any time arise, and the people of the district would readily join in any disturbance.

(6) *Cawnpore*.—This is now the most important commercial entrepôt in these provinces; its trade and population are rapidly increasing. It is the centre of a great railway system, and commands the railway bridge over the Ganges leading into Oudh—a work which should never be left unprotected. It is the centre of very large commissariat arrangements, and possesses extensive flour mills, which grind wheat for the whole of the army of Upper India. It has a large Government harness factory, which it is understood it is in contemplation to make the sole source of the supply of army equipments and accoutrements. It is also a great manufacturing centre for army clothing, half-mountings, cloth and tents, with a population accustomed to supply the wants of the army. It is, moreover, a point from which a force could be detached to repress disturbances in Bundelcund. If the force is kept up at its present strength, the detachment of a Native infantry regiment at Banda might be withdrawn.

(7) *Allahabad* is the capital of the united provinces, contains an important fort, is the head of the railway communication with Bombay, and commands the Jumna bridge.

(8) *Chunar*.—The fort here would be valuable as a place of refuge in disturbances, and should retain its garrison, unless it is entirely dismantled.

(9) *Benares*.—A large city, to which strangers of all kinds flock in large numbers, and the people of which are under the influence of Brahman priests, who have no very strong reason for attachment to our rule and system.

*B.*—In regard to other military stations, I am to remark as follows:—

(1) *Roorkee*.—As the head of the Ganges canal and the seat of important Public Works Department establishments, this should not be left unprotected. Injury to the head of the canal might cause incalculable loss. It should retain a wing of a European infantry regiment.

(2) *Meerut*.—The force here is not required for maintenance of order, and might be largely reduced. At any rate, the European cavalry regiment might be withdrawn.

(3) *Agra and Muttra*.—The force at Muttra is really part of the Agra garrison. As far as the Civil Government is interested, *i.e.*, in regard to the protection of order, both the European cavalry regiment and one Native infantry regiment may be withdrawn. The present strength is, it is presumed, kept up as a protection against the Rajputana States, but would be too weak if a serious attack were to be made from there, while for ordinary circumstances the force proposed to be retained will be sufficient.

(4) *Fatehgarh*.—The force here is not required for maintenance of order; but the defence of the fort and the protection of the Gun Carriage Agency will probably require the maintenance of present arrangements.

(5) *Moradabad*.—At least a wing of a Native infantry regiment should be stationed here. There is always risk of *émeutes* and serious disturbances. The European force may be withdrawn, if the Bareilly garrison is maintained at its full strength.

(6) and (7) *Shahjahanpur and Sitapur*.—The garrisons here may be withdrawn, if Bareilly and Lucknow are garrisoned as proposed.

(8) *Banda*.—The wing of a Native infantry regiment stationed here may be withdrawn, if the Cawnpore force is retained at its present strength.

(9) *Gorakhpur*.—This station ought to have a wing of a Native regiment and 20 Native cavalry. It is isolated, has no railway communication, and commands the Nepal frontier. It should, moreover, have telegraphic communication with Fyzabad.

*C.*—No reference has been made in the foregoing to the depôts for European troops at Ranikhet and Chakrata or to those for the Goorkhas at Almorah and Delhra, as His Honor presumes that these will be retained.

*D.*—The foregoing proposals will permit of the following reduction in the troops now stationed in these provinces:—

	R. Artillery.	E. Cavalry.	E. Infantry.	N. Infantry.	N. Cavalry.
Roorkee ...	...	...	1 wing	...	...
Meerut ...	...	1	...	...	...
Muttra ...	...	1	...	...	...
Agra ...	...	...	...	1	...
Moradabad ...	...	...	Detachment	...	...
Shahjahanpur ...	...	...	Ditto	...	...
Sitapur ...	1	...	Ditto	...	1
Banda ...	...	...	...	Wing	...
Total ...	1	2	1 Regt. at least	1½	1

The reduction will be greater, if the garrison at Meerut be further diminished, or dispensed with altogether, as His Honor thinks it might be from a civil point of view; but this is a point on which the military authorities will probably have something to say.

11. In conclusion, I am to observe that Sir George Couper has not advanced any objections which might be urged against the proposed concentration of the army at large centres, such as the greater healthiness of the smaller stations and their relative cheapness. Much might be said on these and other points; but His Honor presumes that all such have been duly considered, and that concentration must be regarded as an accomplished fact. But the Lieutenant-Governor would strongly deprecate going further in that direction in the first instance than he has suggested in the foregoing paragraphs. For it is a pure experiment, and a very delicate one; inasmuch as there can be no question that the mere sight of troops keeps the dangerous classes in order, while it remains to be seen what will be the effect upon them of their entire withdrawal. It must, moreover, be borne in mind that concentration is not an unmixed advantage. It might be so in a country where the hand of the rest of the community is immediately raised against the disturbers of the public peace; but it is different here where the people remain absolutely apathetic, and where, until Government aid arrive, the wrong-doers have it all their own way.

It is agreeable to think that, immediately on the outbreak of a disturbance at an outlying town, intimation can be flashed to the nearest garrison, and aid despatched within a few hours by rail. But there is another view of the case; and that is, that the organizers of the disturbance may have taken the precaution to cut the wire as a preliminary to their proceedings, in which case incalculable mischief might be done before intelligence could reach the garrison through any other channel; and if the rioters took the further precaution of tearing up the rails, it might be difficult to bring succour at all until the mischief had been fully perpetrated.

It is for these reasons that the Lieutenant-Governor would deprecate any sweeping reductions in the present strength of the army based on the supposed additional power which would be given by concentration. We had better proceed tentatively at first, and extend operations afterwards, if we find that what we propose to do at present has been unattended by harm.



## D.—PUNJAB.

No. 406C., dated Simla, 19th August 1879.

From—COLONEL S. BLAIR, Secretary to Government, Punjab, Military Department,  
To—The President, Army Organization Commission, Simla.

In accordance with the instructions conveyed in the Government of India's letter, Military Department, No. 204-S.B. of the 7th July last, I have now the honor to supply the information therein called for, and to give an expression of the Hon'ble the Lieutenant-Governor's opinion on the military requirements of the Punjab, in reference to its necessary garrison, the immediate repression of internal disturbance or insurrection, and for the maintenance of order.

2. In reply to questions (a) and (b) in the letter above quoted, I am desired to submit the following approximate statistics, as to the number of the Native population (exclusive of the population of the Native States), and of the European and Eurasian population, exclusive of the army:—

Native.		(a) Native population—	
Total in 1868	...	...	17,590,545
Add increase 10 per cent. to bring up to date	...	...	1,759,055
Present population	...	...	<u>19,349,600</u>
European and Eurasian.		(b) European and Eurasian—	
European population in 1868, including the army	...	...	17,574
Deduct European force in the Punjab for that year	...	...	13,347*
Balance non-military	...	...	<u>4,227</u>
Eurasians, 1868	...	8,379	
Increase to 1879	...	337	
			<u>3,716</u>
Total Europeans and Eurasians, say	...	...	<u>8,000</u>

3. (c) and (d) Although information regarding the 'state of feeling' in the Punjab and 'the elements of danger' it contains is placed by the Government of India in their inquiries under separate heads, yet it is not possible so to separate them in the reply. Putting aside danger from without—that of foreign invasion—as apparently beyond the scope of the present reference, the elements of danger in the country are found alone in a fanatical, disloyal, or hostile state of feeling in the population. So long as the state of feeling in the country is cordial and friendly towards Government, no elements of danger of any importance can be said to exist. For these reasons, it is essential to treat the two points on which information is requested, as one.

4. It is a matter of extreme satisfaction to the Hon'ble the Lieutenant-Governor that he is able to record his deliberate opinion, founded upon long experience of the people of the Punjab and the testimony of many experienced and able officers, that the state of feeling in this province is, at the present time, excellent; and His Honor does not believe that in any other province in India there will be found an equal amount of sympathy between the rulers and the ruled, so much identification of the interests of the people with those of the Government, or so much real, hearty, and active loyalty, as in the Punjab.

5. The population of the province is almost equally divided between Hindus (including Sikhs) and Muhammadans, the latter being somewhat more numerous, and in the frontier districts of the Peshawar and Derajat divisions forming the entire bulk of the agricultural population, the Hindus being only found in any considerable number in the villages and towns.

6. The Hindu population, proportionally most numerous in the Delhi and Hissar divisions, becomes about equal to the Muhammadan population at the Sutlej; while at the Chenab, the Muhammadans are vastly superior in numbers.

7. The Sikhs mostly inhabit what is known as the Malwa country, about Umballa and Ludhiana; the Jullundur Doab; the Manjha, about Amritsar and Lahore, the central districts of the province; and the Sialkot and Gujranwala districts in the Rechna Doab. In the Rawal Pindi division some fifty thousand Sikhs are found; but to the south, in Delhi, Mooltan, and beyond the Indus, they are almost unknown.

8. In briefly noting the state of feeling among these three important divisions of the population, it is only necessary to observe, with regard to the Muhammadans, that, owing to a variety of causes, which, however interesting, it would be out of place to discuss here, they are far less fanatical and less swayed by religious bigotry than elsewhere in India. It is among the independent tribes, inhabiting the fringe of hill territory between India and Afghanistan, that we have to go to find a Muhammadan population upon whom the preaching of moollas can produce any great or immediate effect. The Wahabi sect has generally in the Punjab shown itself as peaceable and as well-affected as any other class of the community; and it is only three years ago that the Lieutenant-Governor of the Punjab, in replying to an address of the principal members of the sect, assured them, in terms which produced the happiest effect in restoring their confidence, which was somewhat shaken, that the Government looked upon them with no ill-favor, but had full belief in their loyalty. The presence of a small and fanatical Wahabi colony on the north-west border has for some time directed attention to the Punjab as a most likely centre of Muhammadan intrigue; but the activity and influence of these

\* These figures do not include the women and children, who should also be deducted; but they may be taken as a set-off against subsequent increase.

exiles has been much exaggerated. The Lieutenant-Governor does not believe that there is any part of India where Muhammadans are so well-disposed to the Government as in the Punjab; nor does the most careful and secret inquiry show that there is, at the present time, any movement on the part of the Punjab Wahabis against the Government. The agitation in this province is more religious than political; and although there can be no doubt that the sect has largely increased in numbers, yet its hostility is directed against the orthodox Muhammadans rather than against Government.

9. The Sikhs are among the most warlike, as they are the most compact, class of the Punjab population. The Lieutenant-Governor is not aware that there is any feeling among the Sikhs hostile or unfriendly to the Government. On the contrary, they supply the most numerous and valuable recruits for Punjab regiments; and having been defeated by the British army in 1845, 1846, and 1849 with great difficulty and after a prolonged struggle, the pride and self-respect of the people were not crushed, as they have unfortunately been elsewhere. The governing race regards them as equal in physical strength and courage; and the conquered, instinctively appreciating these generous sentiments, look upon the English with an entirely friendly spirit, and undoubtedly feel some common national pride in the victories of the British arms in which they have been permitted to share. The only hostile element among the Sikhs is found in a dissenting sect, the Kukas, who are to Sikhism what the Wahabis are to Muhammadanism. Their numbers are, however, small; their principal leaders were summarily arrested and transported beyond British India some years ago—a blow from which the sect has never recovered; and though from time to time they show some activity, yet it has not been lately considered necessary or politic to interfere with them. Their doctrines are repugnant to the general body of the Sikh nation; and the Lieutenant-Governor, while considering that the Kukas require constant watch, does not see in them any cause of present danger.

10. The third class of the population includes the mass of the Hindu population, regarding which there is little to be said. The religious influences which affect the Sikhs, affect the Hindu population in the same, or perhaps in a greater, degree; though the Hindus, except in the Delhi and Hissar divisions, representing rather the commercial and manufacturing than the agricultural and warlike part of the community, do not here require any special attention.

11. The excellent spirit of loyalty of the people of British territory is worthily supplemented by the active loyalty of the Native independent States in political connection with the Punjab Government. When the Afghan war broke out, the Hon'ble the Lieutenant-Governor pressed upon the Government of India the employment of the contingents of such Native States as possessed well-disciplined troops; and His Excellency the Viceroy, in cordially acceding to the proposal, permitted to be tried an experiment the undoubted and notorious success of which may be embarrassing to the Government unless they are prepared to carry it still further. The troops of the Punjab Native States are drawn from the people of those States. They are not, as in other parts of India, mere mercenaries, over whom the ruler has no hold or control except the engagement of service. It is obvious, therefore, that so long as the loyalty of the Punjab Chiefs is assured, their troops will be loyal. The Punjab States gave their men with a ready alacrity that has never been surpassed. The officers and men, inspired by the loyal spirit of their rulers, have throughout the Afghan campaign performed harassing and arduous duties, with such good spirit, discipline, and gallantry as to win the highest praise from the most competent military critics. That the loyalty and good spirit of the Punjab Chiefs is sincere the Lieutenant-Governor does not doubt: it has been proved on many occasions, and especially in the mutiny, when they, each in his order, did excellent service for the Government. Their loyalty was confirmed after the mutiny by the generous and liberal manner in which the Government rewarded those services; while, differing from the rest of India, they have one long tradition of friendship with, and protection by, the British Government from the time of their first connection with it, in the beginning of the century. These Chiefs, whose dignity it is the interest of the British Government to maintain and increase, are in this province an indisputable guarantee of the good conduct of the general population. When a people sees its natural leaders strongly on the side of the Government, they, by reflection or by instinct, follow the example set them.

12. Protection has to be afforded to British subjects against the various independent tribes on

Elements of danger to a portion of our territory from foreign enemies.

District.	Tribe.	Race.	Strength.	District.	Tribe.	Race.	Strength.
Hazara ...	Allahi (Swatis)	Pathan	1,000	Dera Ismail Khan.	Wazirs	Pathan	41,000
	Akuzai		1,700		Sheranis	"	5,000
	Hussanzai		2,500		Ustaranas	"	90
Peshawar...	Sadus	"	2,000	Dera Ghazi Khan.	Kusranis	Biluch	1,500
	Bonerwals	"	2,000		Bozdars	"	2,700
	Swatis	"	6,000		Khetrans	Pathan	4,500
	Utman Khel	"	6,000		Khosas	Biluch	4,000
	Mohmunds	"	16,000		Lugharis	"	3,700
Banna ...	Afridis	}	23,500	Dera Ghazi Khan.	Gurchanis	"	1,200
	Afridis				"	Marris	"
	Orakzais	"	29,500		Bugtis	"	1,500
	Zaimukhts	"	4,500		Muzaris	"	2,000
	Turis	"	3,000				
	Wazirs	"	41,000		Total		170,000

the north-west frontier. These tribes occupy the country on our north-west and western border for a length of 700 miles; and aggregate in fighting strength 170,000 men. The statement in the margin gives a list of the tribes and their approximate strength. Fortunately any combination amongst them is impossible; and even in our dealings with the larger

tribes it has been found practicable to detach one or more unoffending sections. The force which it has heretofore been necessary to maintain in the six frontier districts is as follows:—

In the Peshawar district	...	...	8,000 men and 19 guns.
In the other five districts	...	...	11,000 " " 12 "
In all about	...	...	19,000 men and 31 guns.

The strength of the Peshawar garrison was fixed, however, on considerations which do not refer wholly to the frontier tribes.



13. There appears to His Honor to be little more to say on the state of popular feeling or the elements of possible danger. The Government of India is well aware that questions like these are surrounded with mystery, difficulty, and doubt. Popular feeling is as the sea, smooth to-day, and to-morrow troubled by a storm. Trifles, which to the eyes of English rulers may appear as the little cloud like a man's hand, may bring the whirlwind of religious fanaticism and passion. But of one thing the Lieutenant-Governor is at least certain—that the most probable elements of danger are in the Government and not in the people. Docile, patient, and long-suffering, the people of the Punjab will remain well-disposed to individual Englishmen, and loyal to the Government, so long as they are ruled with justice and consideration. The elements of danger lie in the increase of taxation, burdening the population beyond its strength, and in unsympathetic legislation, subversive of Native custom, and undemanded by the voice of the people, against which the Lieutenant-Governor has during the past two years been compelled more than once to protest.

14. (e) and (f) The following two statements contain the necessary information under these

Strength and distribution of police.		heads :—	
Superior officers, European	...	...	62
Subordinate officers	...	...	565
Mounted men	...	...	905
Foot-constables	...	...	18,694
		<b>Total</b>	<b>20,226</b>
		Subordinate officers.	Men.
Guards on jails	...	5	745
Guards on lock-ups, treasuries, and escort duty	...	18	2,348
Town and municipal and cantonment duties	...	28	4,996
Distribution throughout districts	...	514	*11,510
<b>Total</b>		<b>565</b>	<b>19,599</b>

The distribution within districts may generally be said to be proportional to the amount of the population; although in large and thinly-peopled districts the proportion of police to population is necessarily increased.

15. Regarding enquiry (g) the force is, for police purposes, a most efficient body: 9,197 are armed with firearms, 10,400 with swords and batons, and 567 with batons only. The men are tolerably well

drilled to move in small bodies; and His Honor believes that the following opinion, expressed by the Inspector-General of Police in his last report on a detachment detailed for blockade duty during the Kohat pass complication, applies to the whole force:—

“This detachment was formed by selection from volunteers from districts of the Rawal Pindi circle. The men, hoping to see service, volunteered in a body; and very many were necessarily disappointed at being left behind. They marched from Rawal Pindi in the highest spirits, and during their stay at Kohat behaved extremely well. I note this to show that the old spirit of the police battalions still animates the force, and that should at any time half-trained soldiers be required for any emergency, the Punjab police will receive such a requisition with avidity.”

For physique and warlike spirit the Punjab police are not inferior, if they be not superior, to many Native regiments, while their discipline is in no way contemptible. In time of emergency, they would form a most valuable reserve to the regular army.

16. Should the Army Commission desire further or more detailed particulars regarding the population of the Punjab, or the strength and efficiency of the police, I am to refer them to the administration report of this Government, which has been supplied to all departments of the Government of India, and which, with the departmental police report for last year, herewith forwarded, supplies all the information that can be desired.

17. The strength of the European and Eurasian population has been taken at 8,000 souls. Of

(A) European and Eurasian population—

(1) its strength;

this number, one-third, or 2,666, may be able-bodied men capable of bearing arms. These are scattered over the stations of the Punjab, and many of them (about 900)

are to be found in the Volunteer companies composing the 1st and 2nd Regiments of Punjab Volunteers.

The military training which the Volunteers receive gives them confidence, and prevents the occurrence of panic amongst the civil population. In the event of local disturbance, the Volunteers would render very valuable assistance to the Government; and they can materially help towards the protection of their own families and property, and thus relieve the regular troops.

18. The duty of providing some protection for the non-combatants of our scattered civil stations

(2) non-combatants, women and children;

can in some places be left to the body of Volunteers; and it is desirable to encourage, as far as practicable, the Volunteer movement.

19. The Lieutenant-Governor does not think that it will be possible, except at an expense in-

(3) possibility of organizing it for the preservation of order.

commensurate with the results, to form the whole of the European and Eurasian male population of the Punjab into organized bodies for the maintenance of order.

He would encourage a spirit of volunteering for self-defence; but he thinks that any attempt at enforcing compulsory service would be resisted, and would not give a more efficient body of auxiliaries than we have at present in the Volunteers, and, by bringing into the ranks unwilling recruits, might possibly lower the good tone and ardent spirit which now pervades the Volunteer corps.

20. The Lieutenant-Governor is decidedly against any measure of compulsory enrolment of the

(i) Compulsory enrolment.

European population in the Punjab. As before stated, he thinks that it would give a less efficient body of men

than we have at present, or may hope to have, by encouraging volunteering amongst all the civil classes.

21. The Lieutenant-Governor very strongly recommends that the Volunteer movement should be encouraged by Government as far as practicable. In this province there are 900 enrolled volunteers; and lately a proposal has been submitted to Government for the formation of a separate Railway Corps, and, if sanctioned, His Honor believes that many additional new members will be obtained.

(7) Development of the Volunteer system.

22. What the Lieutenant-Governor would recommend as a substantial encouragement to volunteering is the grant of uniform free of cost, in addition to the authorized capitation allowance, to all *efficients*. At present uniform has to be paid for by the funds of the corps; and the consequence is, that commandants find it exceedingly difficult to keep down debt. If this recommendation were sanctioned, many of the difficulties experienced in raising new companies or bodies of volunteers would disappear.

Three corps of Volunteers proposed.

23. At present there are in the Punjab two Volunteer corps, with one paid adjutant; but recent recommendations have been made for—

I.—The formation of a third or Railway Volunteer Corps, to include all employés of the Sind, Punjab and Delhi Railway Company and the Indus Valley (State) Railway, with one paid adjutant, and its head-quarters at Lahore.

II.—The 1st Punjab Volunteer Rifle Corps without its Railway members, with head-quarters at Lahore, } with one paid adjutant  
at Lahore in winter  
and at Simla in summer as at present.

III.—The 2nd Punjab Volunteer Rifle Corps with its head-quarters at Simla,

But if the two latter corps increase in numbers beyond 600 *efficients*, the Lieutenant-Governor would recommend that a third paid adjutant be sanctioned—one for the Lahore Corps, to include all stations north of Umballa, and the other for the Simla Corps to include Umballa and all stations to the south.

(8) Military requirements.

24. In considering the military requirements of the Punjab under the headings laid down in the Government of India's letter under reference—

(a) for garrison purposes and maintenance of order,

(b) for internal and external military purposes irrespective of (a),

the Lieutenant-Governor would remark that, from the replies given to the questions contained in paragraph 2 of the Government letter, it will be understood that he has a high opinion of the general loyalty of the population of this province, and that he considers the Chiefs of the Punjab Native States exceedingly friendly and well-disposed to the British Government.

There is no doubt, Sir Robert Egerton thinks, that the Punjab people have, more than the inhabitants of any other part of India, identified themselves with the British nation, and are inclined to support our Government as the best they can have.

25. The local distribution of the army in the Punjab, which was made after annexation, and which has been but little altered, was based largely upon considerations which are now so much changed, that

Loyalty of Native States.

His Honor believes the distribution may, if convenient, be modified in accordance with those altered conditions. The necessity for watching Native States, which led to the formation of stations at Umballa, Jullundur, and Sialkot, to guard against risk of invasion, no longer exists. The protected Sikh States and Kapurthala are thoroughly loyal: their troops have been repeatedly employed with our own forces, as auxiliaries, and can be relied upon to help us both to preserve the peace of the province and also in war.

26. While urging this view of the feeling of the people and Chiefs of the province, the Lieutenant-Governor does not forget that we are foreigners of alien race and religion, and that we must at all times be prepared to hold with the sword the country we have won from a warlike population by the sword. For internal purposes, however, it is not necessary to place troops to watch particular States whose services have placed the loyalty of their Chiefs and people beyond doubt.

The Lieutenant-Governor observes that the people of the Punjab and of the Native States look upon the great towns of the province as the capitals of their nationality. Lahore and Amritsar are metropoli-

Importance of the great towns.

tan for all Punjabis, whether residing in British territory or in Native States. It is from these great centres that the minds of the people over all the country are affected; and the Lieutenant-Governor considers it necessary always to exhibit military strength at these places, where it can be seen by the greatest number of persons, in order to produce the greatest effect upon the population.

27. On the trans-Indus frontier the case is different. The considerations which led to the formation of the Punjab Frontier Force remain almost unaltered up to the present time. The tribes which occupy the hill country immediately beyond the border in the Peshawar and Derajat divisions, although the policy which has been consistently pursued towards them has had the best results in restraining their predatory habits and encouraging a more friendly spirit towards the Government, are still savage and uncertain in temper. They are still much given to making plundering expeditions into British territory; and the country still requires military protection against their incursions. The Punjab Frontier Force is also required for punitive expeditions against the border tribes, for which their training and local knowledge specially fit them.

28. The remarks which I am desired to offer in reply to the questions in the third paragraph of the Government letter will therefore relate almost entirely to that portion of the Punjab which lies east of the Indus, but will necessarily include the Peshawar valley, which is held by troops under the orders of His Excellency the Commander-in-Chief.

29. The Lieutenant-Governor thinks that there are some stations in the Punjab which can now be given up. The great improvement which has been made in military weapons has more than doubled

Reductions recommended.

the fighting efficiency of the British and the Native soldier, so that, in His Honor's opinion, we can afford to reduce our numbers, and to concentrate our forces. In doing this, however, he would very strongly advocate that whatever troops are maintained should be rendered mobile, and that some system of transport should be kept up ready to put one-half the troops in the Punjab into the field. Heretofore the transport arrangements have always been a great difficulty; and in our recent experiences this fact has been prominently brought to notice. But if we can now do our work with reduced numbers of troops, the difficulties in transport arrangements should be very much lessened; and the cost of these may be met by reductions in the strength of the army.

30. After giving this subject careful consideration, His Honor thinks that our troops, and more especially the British troops, should be stationed in those places where the intelligent and wealthy portions of the

population are collected, and where the greatest commercial activity and life exist. He is averse to a system which divides our British strength into small detachments, or which scatters these troops over many parts of the country. He would not place one British soldier across the border, but would rather concentrate them in our own provinces, both in order to impress our own subjects with an idea of our strength, and also as a power ready to move forward in cases of emergency. Our Native troops are fully fitted both in physique and in bravery to cope with any of the tribes on our border, to whom they are also by a long course of national tradition hostile; and His Honor thinks there are many reasons which should induce the Government to concentrate rather than scatter our British troops.

31. In the first part of the following statement the Lieutenant-Governor has given those places which he thinks must be maintained as stations for British troops; but he remarks that the greater part of the garrisons entered for Mooltan and Rawal Pindi are required chiefly as supports to our troops holding the front or border line.

These stations are, with the exception of Rawal Pindi and Ferozepore, all upon the line of railway. The line to Rawal Pindi will soon be completed; and it will not be necessary to hold Ferozepore with British troops after the arsenal is removed.

32. The two Goorkha regiments stationed at Bukloh and Dharmasala may be treated exceptionally: they are for certain reasons kept in a cool climate and made local corps, whilst they are ready for any service that may arise.

	ARTILLERY.		CAVALRY.	INFANTRY.		
	British.	Native.	Native.	British.	Native.	
	Horse, field, or mountain.	Garrison.	Mountain.	Regiments.	Regiments.	
Delhi ...	...	1	...	1	1	
Lahore with Amritsar...	3	2	...	1	3	
Rawal Pindi ...	3	...	...	1	3	
Peshawar ...	2	1	...	3	4	
Mooltan ...	2	1	...	2	2	
Ferozepore ...	...	1	...	...	1	
	10	6	...	7	14	Only required so long as the arsenal remains.
Bukloh and Dharmasala ...	...	...	...	...	2	Goorkha regiments, local.
Frontier {	Hazara ...	...	1	...	2	
	Murdan ...	...	...	1	1	
	Kohat ...	...	1	1	2	
	Edwardesabad ...	...	...	1	2	
	Dera Ismail Khan ...	...	1*	1	2	
	Dera Ghazi Khan...	...	...	1	1*	
New assigned districts under Punjab Government. {	Rajanpore ...	...	...	1*	...	*1 Battery 1 Native cavalry. 1 Native infantry.
	Lundi Kotal ...	...	1	...	2	} Available for new station in Beluch hills.
	Ali Musjid ...	...	...	...	1	
	Jamrud ...	...	...	...	1	
	...	...	4	6	14	
	10	6	4	13	11	30

33. According to the above proposed distribution, the following stations need not, for purposes of internal security or external defence, be held by troops at all, but other considerations may render it expedient to continue the occupation of them:—

- |                |               |
|----------------|---------------|
| (1) Umballa.   | (6) Phillour. |
| (2) Sialkot.   | (7) Talagang. |
| (3) Jullundur. | (8) Nowshera. |
| (4) Jhelum.    | (9) Subathu.  |
| (5) Ludhiana.  | (10) Dugshai. |

And British troops may be withdrawn from—

- (1) Kangra.
- (2) Dera Ismail Khan.

34. In regard to Umballa, if it is considered that the presence of a large number of troops at that station may have confirmed the loyalty of the Sikh States, and that it is imprudent to remove them, I am to point out that the existence of the railway has made it possible to move troops in the course of a few hours from points at a distance formerly prohibitive on both sides to Umballa. Moreover in 1857, when our Native troops at Umballa were in mutiny, the Government was supported at once by troops from Patiala; and the Lieutenant-Governor believes that on account of the existence of the railway and the telegraph, as well as on account of the well-tryed loyalty of the Sikh States, it is not necessary to continue to occupy Umballa, though for years to come it may be convenient to do so, on account of the existence of barracks there.

35. As accommodation in barracks to the full extent does not exist at Lahore, Mooltan, and Peshawar; it may therefore be necessary to continue to occupy the following stations with the troops mentioned:—

(1) Umballa	...	}	2 Batteries	Royal artillery from Meean Meer and Mooltan.
	...		1 Regiment	British infantry from Meean Meer.
	...		1 "	Native infantry from Meean Meer.
(2) Dugshai	...	}	1 "	Native cavalry from Mooltan.
	...		1 "	British infantry from Mooltan.
(3) Nowshera	...	}	1 "	British infantry from Peshawar.
	...		1 "	Native cavalry from Peshawar.
	...		1 "	Native infantry from Mooltan.

36. The second British infantry regiment at Peshawar might under ordinary circumstances be withdrawn during the hot season to the hills in the Hazara district. His Honor thinks it will be necessary to retain some British troops in the Peshawar valley; but if our political arrangements with Cabul strengthen our position with the Khyber and Mohmand tribes, he will then have no objection to the reduction of the British garrisons in the Peshawar valley, which has always had a bad reputation for salubrity.

37. In the above statement no provision has been made for British cavalry. This arm of the service can, the Lieutenant-Governor thinks, be dispensed with, as no service is likely to arise in the Punjab or on the border requiring, as an absolute necessity, the presence of British cavalry. On this subject, however, the Lieutenant-Governor offers an opinion with some diffidence, as he is aware that most military authorities would not consider a force of British troops complete without a proportionate number of this arm.

38. The Lieutenant-Governor has made no remarks on the requirements of the Kuram valley and Peshin assigned districts. These are beyond his jurisdiction; but the station of Kohat is to some extent affected by the former. So long as the Afridi and other tribes with whom we are brought into contact remain quiet and peaceful, the station of Kohat can be held well by the force\* assigned to it. But in the event of any disturbance arising with the Afridis generally, it may become necessary to increase this station to its original strength of three Native infantry regiments.

Assigned districts not considered.  
Importance of Kohat.

\* 1 Native cavalry regiment.  
2 Native infantry regiments.

Cantonment in Beluch hills.

39. For the occupation of a new cantonment in the Beluch hills, the Lieutenant-Governor has stated that—

- 1 Mountain battery from Dera Ismail Khan,
- 1 Native cavalry from Rajanpore,
- 1 Native infantry from Dera Ghazi Khan,

will be available, if that cantonment is formed. But in the event of no advance being made in this direction, these troops will be required at existing border stations for frontier defence.

40. The following statement shows the strength below which the garrisons at the stations named should not be reduced when any occasion calling for a general concentration of troops may arise:—

	ARTILLERY.			INFANTRY.	
	Field or horse.	Garrison.	Cavalry, Native.	British.	Native.
Delhi	...	1	...	1½	1½
Lahore and Amritsar	1	2	1	1	1
Rawal Pindi	...	...	1	1½	1
Peshawar	1	1	1½	1½	2
Mooltan	...	1	...	1½	1½
Ferozepore	...	1	...	1½	1½
Frontier Force stations	...	...	4½	...	6
	2	6	8	3½	11½
New assigned districts, Lundi Kotul, Khyber, &c....	...	...	...	...	4
	2	6	8	3½	15½

This leaves for external or internal military purposes—

- 8 Batteries royal artillery, horse or field,
- 4 Native mountain batteries,
- 5 Regiments Native cavalry,
- 7 Regiments British infantry,
- 14½ Regiments Native infantry,

which would give 6,000 British and 12,000 Native troops, one-half of which should be ready to take the field at once, and the other half in six weeks.

41. Comparing the strength of troops in the Punjab before the late war with Afghanistan with the numbers now considered requisite, the following results are obtained:—

	ARTILLERY.		CAVALRY.		INFANTRY.	
	British.	Native.	British.	Native.	British.	Native.
In 1877-78 before the war ... ..	21	4	3	15	18½	31
Now proposed ... ..	16	4	...	13	11	27*
Proposed reduction ... ..	5	...	3	2	2½	4

Estimate of annual saving effected by proposed reduction of strength of Punjab garrisons as above.

			Rs.
5 Batteries artillery ... ..	{ 3 horse } { 2 field }	=	9,50,970
3 Regiments British cavalry ... ..	at Rs. 5,67,000	=	17,01,000
2 Regiments Native cavalry ... ..	at „ 2,63,322	=	5,26,664
2½ Regiments British infantry ... ..	at „ 5,84,473	=	14,61,182
4 Regiments Native infantry ... ..	at „ 1,80,585	=	7,22,420
	<b>Total</b> ...		<b>53,62,236</b>

42. In framing the above proposals, the Lieutenant-Governor has been guided chiefly by the requirements of the Punjab as he estimates them; but inasmuch as this province contains the most warlike population in India, and has a line of frontier inhabited by fierce predatory tribes, he thinks that a reduction in the strength of the garrisons of the Punjab will not necessitate the maintenance of a larger force in other parts of the Indian empire, and that, if his proposals are accepted, the Indian army may be reduced to the extent which he has indicated. The Lieutenant-Governor is aware of the grave responsibility which attaches to the expression of the opinions contained in this letter, but he believes that the creation of railways in the Punjab, within a very recent period, and the immense increase of fighting-power which our troops have gained by the use of breech-loading rifles, justify him in the recommendations he has made, even were the feeling of the people towards the British Government less loyal than it is.

## E.—BOMBAY.

Answers to questions regarding the strength, the duties, and the requirements of the Bombay Army.

*Minute by the Governor of Bombay, dated 31st July 1879.*

My hon'ble colleagues have doubtless considered duly the very important questions addressed to us by the Government of India in their letter No. 204 S.B., dated 7th July 1879, regarding army organization, to which we are requested to send our replies by the 15th of August.

I proceed to note the replies that occur to me for the consideration of the Commander-in-Chief and my hon'ble colleagues. I shall follow exactly the order of the questions put, quoting the words of each question.

The first question is “(a) *Strength of Native population.*” This was shown as below for the Bombay presidency by the census of 1871-72:—

	Souls.
1. Hindus ... ..	13,403,675
2. Muhammadans ... ..	2,528,344
3. Asiatics, not Natives of India ... ..	240,448
4. Feudatory States, including Baroda ... ..	9,298,612
<b>Total</b> ...	<b>25,471,079</b>

Of the above, 8,332,246 (about) are adult males.

\* Excluding the Khyber garrisons of Native infantry.

For 1, 2, 3, see table 23, page 53, "Memorandum on the Census of British India of 1871-72." For 4, see page 5 of the same.

But as the Bombay army supplies troops to guard State interests in Central India and Rajputana, it may be well to add the population of the Native States in those two political divisions thus (census, 1871-72)—

	Souls.
Central India ... ..	7,699,502
Rajputana ... ..	8,981,588
Total	<u>16,681,090</u>

If this be added to the total of the presidency proper, above shown, then the grand total of the population with which the Bombay army is concerned will amount to 42,152,169 souls.

The next question is "*(b) Strength of the European and Eurasian population, irrespective of the army.*"

This is shown as below by the census of 1871-72 for the Bombay Presidency:—

	Souls.
British ... ..	23,907
Other Europeans ... ..	4,681
Americans ... ..	}
Africans ... ..	} 8,839
Australians ... ..	}
Eurasians ... ..	3,671
Indo-Portuguese ... ..	29,787
Total	<u>65,835</u>
<i>Deduct—</i>	
European army all ranks, and European officers and non-commissioned officers, Native army* ... ..	<u>12,047</u>
Total European and Eurasian population irrespective of army, but inclusive of Indo-Portuguese ... ..	<u>53,788</u>

"*(c) State of feeling*" of the Native population. For this question the presidency may be divided into the Deccan, the Concan, Guzerat, Kattywar with Cutch, Sind, and lastly the great city of Bombay.

The Deccan may be here taken to include all the country from the river Nerbudda in the north to the boundary of the Mysore territory in the south, comprising Khandesh, the country round Poona, the cluster of Native States called the Southern Mahratta Country and Dharwar.

The mass of the peasantry are generally well-disposed and loyal to Government; but as their immediate ancestors were much engaged in wars and revolutions, many martial qualities survive in them, and even of late years they have in some parts shown a certain sort of excitability which tends to violence. The hilly nature of the country sustains habits of hardihood and self-reliance. Experience has shown that, in event of a rising, many of the wilder or more adventurous spirits among this peasantry would either actively join or indirectly assist the insurgents. Among them, too, are some hill tribes, such as Bhils, and some tribes inhabiting both plains and hills, such as Mangs and Ramosis, who are always ready for mischief, and capable of doing it, if opportunity offers itself. The Bhils were once very troublesome; and though they have greatly improved of late years, still it cannot at all be said that all apprehension about them has passed away.

There is a considerable Mahratta nobility, called Sirdars of the Deccan, once powerful, and, though no longer powerful, still influential: although there was, as I understand, anxiety about them in 1857, they are now esteemed to be personally well-disposed. But much as we may confide in each chief individually, as we see him now-a-days, it is to be remembered that these people are the descendants within two generations of those who formed the court and camp of the Peishwas; that their immediate ancestors enjoyed wealth, power, honor, all which inevitably pass away in consequence of a foreign rule like ours; that despite all the arrangements which we can reasonably be expected to make for the partial continuance of their emoluments for limited periods, despite also such concession in perpetuity as may be allowed consistently with the interests of the country, these people must be much worse off under our rule than under the preceding rule; that they, whose families were in bye-gone times above all law, now feel the restrictions of a civilized administration; and that all these circumstances affect not only the heads of houses, but their numerous dependents and retainers. All this should be weighed in estimating the chances of trouble. During the earlier days of our rule it would have had more potential import than at present; and it may decrease gradually year by year. But it still exists in some degree, and so far it should be borne in mind.

There are certain classes among the humbler orders in some of the cities, such as Poona, Satara, and Nasik, who appear to be hostilely disposed, and who might under certain circumstances become a turbulent mob.

The educated classes, fast growing in numbers and intelligence, are, as a rule, loyal; indeed, I should say they must necessarily be loyal and well-disposed to Government. But among them there are unfortunate exceptions to this good rule—men who are many in the abstract, though not numerous relatively to the whole of the upper and middle classes; men whose minds seem discontented and unsettled, and who are, it is to be feared, actually ill-disposed towards Government. There are also scattered among the community individuals who are of a restless, intriguing, plotting disposition,

\* N.B.—These numbers, besides European army, include staff corps, general list cavalry and infantry, unemployed general officers, and unattached officers.

seemingly irreconcilable to British rule, and of an ambitious nature, who might, under some circumstances readily conceivable, become influential for mischief. Indeed they are mischievous already both directly by their own conduct and indirectly by their influence upon others; and of this there are many indications abroad.

Of the Native States above mentioned, some have at times during British rule, even up to recent years, been centres of political mischief, with a tendency towards combination. But these evil characteristics have of late decreased, perhaps almost disappeared. Some, such as Kolhapur, are under British management during a minority, and are so far to be depended on for loyalty; in some, too, the Chiefs are actively loyal. Experience must convince us that, in the event of a general disturbance however, it is but too probable that attempts would be made to corrupt the fidelity of these States.

Throughout the whole of the Deccan, the mind of the people is, I believe, affected by the past associations of Mahratta rule, which, so far from being forgotten, are better remembered than would ordinarily be expected, and by the long-retained memory of the Mahratta uprising against the Muhammadans—a memory which is constantly recalled by the sight of the mountains which rendered that uprising first practicable and then successful, and by the traditions always so apt to survive in mountainous countries. This memory constantly suggests the analogy between the position of the British and that of the Moguls in the Deccan.

There is a general tendency also to criticize to an extreme degree, not only the proceedings of Government and its officers, but also the national conduct and policy of the British in respect to India. Though much of this criticism is legitimate, and is not at all to be confounded with disaffection, still some of it often verges towards that degree which is hardly distinguishable from disloyalty.

The Concan may here be taken to include North Canara on the south, and to extend to near to Surat in the north. I have to report favorably of this tract of country, with the exception of some hill tribes, Kolis and others, who are excitable and slightly mischievous after their kind.

The Canarese people are peaceable and loyal. In the Concan proper, the principal class are the Khotes, or superior landlords, who are, as a rule, all that could be expected in respect to loyalty.

The peasantry are intent on industry, with no thought of mischief. The pensioners of the Native army chiefly reside in the Concan, and draw in the aggregate a large sum annually from the Government treasury. Their loyalty has a considerable influence socially.

The Native States of Sawantwari and Janjira are well-disposed; but in both of them there has been trouble—in Sawantwari many years ago, and in Janjira more recently—which, though possible again in the future, is not likely to recur. Experience even up to recent times, however, indicates that, if any political trouble arose in the Deccan, the excitement would spread to the Concan.

In Guzerat are included the rich country from Surat to Ahmedabad, the Native States of Rewa Kanta, Mahi Kanta, Pahlampur and Radhanpur, and the large State of Baroda.

The peasantry is prosperous and loyal, and generally free from excitability; but there are some tribes among them, Kolis and others, of a turbulent disposition.

Of the landed gentry, some are of excellent character and undoubted loyalty. Others are broken in fortune and doubtful in character; and respecting some of these the caution I have expressed regarding the Mahratta aristocracy of the Deccan is applicable.

Of the large urban population in this province, the inhabitants of Surat and Broach have alone evinced a turbulent disposition.

In the Native States, and in one of the British districts (Panch Mahals) received in exchange from a Native State, there used to be many lawless characters of various tribes; but they have of late years been either improved or repressed, though they might break out again if opportunity were to offer. In other respects most of the lesser Native States appear to be thoroughly loyal to the British Government, though, as Rajputs, capable of contending even violently with the Mahratta State of Baroda in event of disputes about the complications of landed tenures which exist in that quarter. Such disputes have, however, been for the most part settled, and we may hope that no trouble will arise.

Even in Guzerat, however, the conduct imputed to Radhanpur in 1857, and the rebellion of the Rana of Nagar Parkar near Cutch during that time, should inspire us with some diffidence in casting up the total of our chances in event of danger.

Of the present management of the Baroda State, of the loyal disposition of its Chiefs and people, I form a very favorable estimate. But experience and information convince us that, in event of any sort of trouble in the Deccan, there will be sympathy with it among some individuals, perhaps some classes at Baroda; or *vice versa*, if the trouble be at Baroda, there will be a sentiment aroused in the Deccan. This circumstance must, I think, be regarded as a political factor.

Kattywar was once much infested by lawless people, but of late years all these elements of trouble are fast disappearing. The disposition of this large cluster of Chiefs is quite loyal. The temper of the peasantry is peaceful and industrious. The improvement in Kattywar within this generation reflects honor on British rule in Western India. Still the smouldering or hardly extinguished elements of trouble might break out again in the event of a general disturbance. Similar remarks may be applied to Cutch.

In Sind the temper of the cultivating peasantry is quite loyal to the Government. So also, I think is the disposition for the most part of the landlords, large and small. But some of the larger landlords are broken in fortune; and when this is the case, we must reflect that the sufferers are often apt to attribute their misfortunes to a change of political rule, however undeserved such imputation may be. It is to be remembered that the population of Sind is mainly Muhammadan, while the population of the rest of the presidency is mainly Hindu.

Along the whole sea border of the presidency, from Kurrachee, past Cutch and Kattywar, past Guzerat and the Concan, and Canara, down to the confines of Madras, there are hardy maritime classes, once dangerously piratical, but now addicted to lawful ocean-borne trade, and very well affected.

In the great city of Bombay the population is in the main thoroughly loyal. There is not one disloyal class; while some classes, such as Parsis, are conspicuously loyal. But the mob is not free from excitability; and we know that some classes are capable of violent contention one with the

other—as, for instance, the lower class of Muhammadans and Parsis in 1851 and 1874. In such a city, with so many diverse constituents and elements, it were vain to suppose that no disaffected or dangerous persons exist. There must ever be many such individuals; and the tendency to carry legitimate criticism on public affairs too far, as already noticed in the Deccan, is sometimes perceptible in the capital also.

For the presidency generally, it is to be remembered that, during the past three years, there has been a protracted tension of misfortune, first drought and famine, then inundation, pest, sickness—all which, though borne with exemplary fortitude, must in many respects affect the temper of the people.

There is no Muhammadan fanaticism anywhere in the presidency; and if there ever was any Hindu fanaticism, it has long ago been subdued by education.

But if religious Brahmanism be decaying (as many believe it is), still political Brahmanism is not extinct in those parts of the presidency which were subject to Mahratta rule. The Brahman caste has not forgotten, will probably never forget, that it was at the head of the great Mahratta confederation.

In Western India the rapid development of commerce, foreign and domestic; the expansion of industrial activity; the accumulation of capital—all tend to loyalty and good-will towards Government. Nowhere is it more true than in Western India that those who have the command of capital—that cardinal resource in danger—are in the foremost rank of loyalty.

I should add here that though a general disarming of the people in Guzerat and parts of the Deccan was carried out many years ago, there are still many arms in the hands of the people, not nearly so many as there used to be in former times, yet enough to be in some degree auxiliary to mischief in event of a general crisis.

On this brief review of the state of feeling of the people there is much to cause satisfaction, but much to demand watchfulness, and something, under various conceivable circumstances, to excite anxious forethought.

There is generally some fermentation in the public mind among the Natives of Western India whenever the British Government is engaged in wars or in grave political affairs. In any event which might cause British power to shake, even in the slightest degree, such fermentation would speedily become aggravated. Then the several elements of mischief I have mentioned would become active, while (as is usual with Oriental nations) most of the numerous elements of good would remain comparatively passive; and so Government would be left to deal with its difficulties, unaided even by its loyal subjects. Under such circumstances the conduct even of the agricultural classes would not be satisfactory in respect of co-operation with the Government.

(d) *Elements of danger.*

These elements may be regarded as *internal* and *external*.

*Internal*, first as respects the contour of the country. A range of mountains, 2,000 to 4,000 feet above the sea, running like a dorsal ridge right through the presidency from end to end, from north to south, on the west side generally precipitous like a wall, on the east side trending into undulations, or branching off into transverse ranges which run eastwards. This is, in technical phrase, “a very strong military country” with fertile assailable tracts on either side of it. In the rainy season, for five months in the year, it is very hard to be traversed. It is inhabited by races that possess the qualities incidental to rugged regions. From the earliest ages it was regarded as a military base and was studded with hill forts. This base was so developed by Sivaji and his successors, that it afforded such military cover as enabled them to operate successfully against the foreign invaders (Moguls), and so it became the foundation of the Mahratta power. There always was a two-fold aspect in this power, which was first predatory, and secondly directed against alien conquerors. Whenever there has been trouble in Western India, it has assumed these very forms, in varying degrees of course, and generally in a much milder degree. The nature of the country, which on this particular line cannot be artificially changed, is a standing reason why the history of the past should repeat itself in the future. The tendency is perceptible even in times of peace; and in time of war or disturbance will probably manifest itself markedly.

In one respect, however, this abiding difficulty has been to some extent, and is still being, overcome, because the range of mountains has been pierced east to west by railways on two points,\* and by first-rate military roads for wheeled carriage in eleven points,† and some more lines of similar communications are contemplated.

The hill forts on this mountain system have held a dominant place in the military history of the Deccan. Some of them were dismantled, though imperfectly, in 1858, while others (which now belong to our feudatories) remain intact. Their seizure would hardly be attempted by common insurgents; but in the event of a general insurrection, the possession of them by our enemies would be most serious, as they are not only hard to take even with modern appliances (though of course they can be taken), but have also cultivation, pasturage, and such like resources of supply at their base, and abundant water in their interior. Therefore they are always kept before our minds. Two of the most important are held by our troops,‡ four are close under our observation,§ five|| are held by our feudatory Mahratta Chiefs.

*Internal*, secondly as regards the people. These will be gathered from my foregoing remarks regarding the state of feeling among the people. They may be summarized thus—

Political ambition among certain classes which can hardly be satisfied under British rule.

A certain degree of disaffection, which, though very partial, is not likely to be removed, or even mitigated, by any remedies which a foreign Government can adopt.

A Native aristocracy which has unavoidably suffered in wealth and position by the introduction of foreign rule.

\* Thal Ghat and Borghat.

† Kundai Hari, Thal, Bhor, Warunda, FitzGerald, Kumarli, A'mba, Phonda, A'mboli, Yellapur, and Dewamani.

‡ Satara and Purandhar.

§ Singad, Partabgarh, Raigarh, and Sewnere (Junnar).

|| Rajgarh, Torua, Vishalgad, Bowra, and Rangua.



Clusters of lesser Native States inside the presidency, which, despite the personal loyalty of the Chiefs, might, indeed probably would, become centres of political intrigue in event of general disturbance.

Certain tribes, such as Bheels, Kolis, Ramosis, Waghirs, and others, either inclined occasionally to lawlessness and violence, or else of a predatory disposition hardly corrigible.

*External.*—The territories of the Nizam continuous with this presidency for full four hundred miles, full of dangerous characters until recent times, during which the improvement has been wonderful, and most creditable to the Nizam's Government. But in a certain number Rohillas, and such like Muhammadans, still exist in those territories, who have no congenial employment in peace, and who, in event of general disturbance, would menace, perhaps even harass, this presidency. The existence of armed Arabs at Hyderabad also should not be overlooked.

Lawless characters of diverse sorts in the hilly districts of Central India and Rajputana, who would threaten Guzerat and Khandesh in event of general disturbance.

On the Sind frontier the tribes of Murriss, Bugtis, Brahuis, and Beluchis, some of whom have in former days caused much trouble. But apprehension on their account has been very considerably lessened by recent political arrangements in the Khelat territory, and on the south-eastern border of Afghanistan.

These arrangements will, however, enlarge our responsibilities respecting the tribes which occupy the Bolan and Moola passes, and will cause our relations to extend not only to the line of communication with Herat *via* Kandahar, but also to the line with Furra and Seistan *via* Khelat and Nooshpy. The Khan of Khelat has, in his time, been a source of anxiety, but he seems to be now a faithful vassal, or at least a good ally; and he is at peace with his feudatories, who formerly were so troublesome. He has a force of about four thousand men.

In general terms, the Bombay presidency may be described as surrounded on all sides, except the sea, by large Native States (external to the presidency), who have in the aggregate considerable armed forces in various degrees of discipline, armament, and equipment. However justly and sincerely we may rely on the loyalty of these Native sovereigns and their surroundings, still we cannot tell beforehand whether, in event of widespread trouble, they could keep all these forces in control.

To this category of "external" might be added the military and political contingencies surrounding Aden—a place which, garrisoned by Bombay troops, is becoming the outpost of British power and influence in South-Western Arabia; an outpost which really supports the arbitrament which we now exercise between the contending Chiefs and factions in a region so often stained with bloodshed; an outpost, too, from which detachments might be demanded for Perim, Socotra, and other points in event of general war. Also there are the coasts of Mekran, Oman, both the Arabian and Persian shores of the Persian Gulf, and the islands situated in the Gulf—in all which places troubles have occurred, demanding armed interference by the British Government, and in parts of which detachments of Bombay troops are stationed, that have sometimes not only to quell disturbance on land, but also to assist in the suppression of plundering at sea.

Before proceeding to the next heading, I must remark that the considerations set forth in the two preceding headings (c), and (d), namely, "State of feeling" and "Elements of danger," clearly indicate that an adequate and effective military force must be maintained in the Bombay presidency for garrison purposes and maintenance of order.

(e) *Strength of the police.*

The following is the strength of the police of the Bombay presidency (Administration report of Bombay, 1877-78) :—

1. Commissioner, Bombay City	...	...	...	1
2. Deputy Commissioner, Bombay City	...	...	...	1
3. District and assistant superintendents	...	...	...	26
4. Superintendents of railway Police	...	...	...	2
5. Subordinate officers, District Police	...	...	...	3,049
6. Ditto Water-Police	...	...	...	61
7. Ditto Railway Police	...	...	...	134
8. Mounted constables, District Police	...	...	...	1,294
9. Foot constables, District Police	...	...	...	14,069
10. Ditto Railway Police	...	...	...	844
11. Ditto Water Police	...	...	...	753
12. Subordinate officers, mounted and foot constables, Bombay City Police				1,413
Total all ranks				21,647

The police of the Bombay presidency are under the immediate orders of the Commissioner in Sind, and the Commissioners of the Northern, Central, and Southern Divisions, and the Police Commissioner of the City of Bombay.

*(f) Distribution of the police.*

The police is distributed as below :—

	Officers and men.
<i>Northern Division.</i>	
Including Ahmedabad, Kaira, Panch Mahals, Broach, Surat, Tanna, Colaba ...	5,062
<i>Central Division.</i>	
Including Khandesh, Nasik, Ahmednagar, Poona, Satara ...	5,843
<i>Southern Division.</i>	
Including Belgaum, Dharwar, Kaladgi, Kanara, Ratnagiri ...	3,537
<i>Sind.</i>	
Including Kurrachee, Hyderabad, Shikarpur, Thar and Parkar, Jacobabad ...	4,800
Railway ...	980
Bombay city ...	1,415
Total*	21,647

*(g) Efficiency of the police.*

Its efficiency is here to be considered in reference to its power of repressing armed violence. Such repression must be effected, if not by the police, by the army eventually. Thus the question is, how far would the police be auxiliary to the army in this respect; and what would be the demand of the civil power upon the army? The answer will depend, not only on the character of the police, but also on the character of those with whom they have to deal. Now, looking to the courage, daring, and hardihood of the classes who sometimes commit crimes of violence on a large scale in the Deccan; looking also to the ordinary conduct of the police, I must answer that the police are sometimes found unable to cope with the robbers of Western India. It has happened that bands of these men armed—it is hard to say how—have proved themselves more than a match in open fight for parties of policemen, and have succumbed only to regular sepoy. I hope that the quasi-military drill and discipline of the police will be improved. Strenuous endeavours will be made with this view, as it has become evident that the purely civil element, however desirable in itself, has too exclusively prevailed in the police. On the other hand, the robbers of the Deccan, on their own hilly ground, have shown themselves to be as much as regular sepoy can manage. In short, if a band of these men is to be attacked on the hillside, it would be held desirable that a European officer should be present. Similar experience was had in Khandesh with the Bheels some years ago.

If, therefore, even casual trouble arises in the Deccan, either the police must be made equal to soldiers—a result hardly likely to be attained—or else the civil power must call for troops, and the military must be prepared to meet the demand, which is the only sure way of dealing with the affair.

*(h) European and Eurasian population considered as—*

- (1) *strength in combatant power and for the maintenance of order;*
- (2) *weakness in necessity for provision of safety of non-combatants, women and children;*
- (3) *of possible greater utility than at present if organised for the maintenance of order in case of disturbance.*

The strength in combatant power of the European and Eurasian population in this presidency can be estimated from the statistics given under heading (b).

The number is swollen by the inclusion of Indo-Portuguese, who, though quite trustworthy and loyal, have a physique different from that of Europeans, and would not ordinarily be classed with Europeans available for any sort of military service. In extreme danger, however, a considerable number could be organized of Indo-Portuguese of the humbler classes, who, whatever their fighting qualities, would be entirely with us in sympathy. Exclusive of Indo-Portuguese and foreigners, who would not ordinarily be called upon for military service, I should estimate the Europeans and Eurasians in the Bombay presidency who could in emergency be counted upon for bearing arms as something under five thousand. Much would depend in the conduct of the Local Government at the time, and perhaps the number might not exceed four thousand; but three thousand, I believe, would be, and certainly ought to be, obtained. This opinion is given after frequent consideration in reference to the Volunteer movement. It is given also on the assumption that the European community continues to be much as it is now; while some circumstances tend to the growth of this community, other circumstances check that growth, notably the advance of the Natives in practical education, which conduces to their employment in many departments of skilled labor hitherto occupied by Europeans.

The statistics under heading (b) show what a multitude of non-combatants, women and children—many thousands—we should have to guard in Western India in the event of general danger. The majority are of course in the city of Bombay. But many are, as usual in India, scattered over the country. There are not, as a rule, places of refuge in our military and civil stations, and there are very few habitable fortresses which could be thus used. The following forts could, however, be used in this way :—

Ahmednagar.  
Asseerghur.  
Belgaum.  
Satara.  
Neemuch.

The castle of Surat might be added to this number. It was arranged in 1857 that women and children should go there, if there was an outbreak. Troops and sailors were then stationed there.

The fort at Sholapur also, though unoccupied, is not dismantled, and might at short notice be fitted up as a place of refuge.

For Poona a place of refuge could be inexpensively and efficiently provided at Kirkee. The city of Bombay is not at all suited for any such arrangement.

The various railway stations are not, as a rule, constructed so as to be technically defensible; still, by ready skilfulness in emergency, such defensibility might be improvised. And most of the railway workshops and depôts could be defended by British volunteers, at least against an armed mob.

It will be presently shown that the volunteering system in the Bombay presidency has recently been much developed, but that still it is only about half what it might be.

Therefore we must reply that the European and Eurasian community might certainly become of greater utility than at present, if organized for the maintenance of order. The question, however, immediately arises whether this organization should be compulsory or voluntary. I recommend its being continued voluntary, as at present. There are many obvious objections to its being made compulsory, as such a plan would probably prove unpopular with those concerned, and might not sensibly add to the actual fighting power which we now obtain from the voluntary system.

(i) *Question of compulsory enrolment.*

It will be seen from the preceding answer that I cannot undertake to recommend this, though I quite see its practicability, and would do my utmost to promote it, if it be ordered by supreme authority. The first step would be comparatively easy. Every European British subject in India capable of bearing arms would be required to enrol himself before some authority duly appointed on that behalf. There would be constant difficulty in keeping correct the register of such enrolment, by reason of the changes to which the Anglo-Indian community is subject beyond any other community in the world. Every person enrolled would be required to obtain a certificate of having passed his drill, and of having acquired a prescribed proficiency in musketry.

Much of this would be congenial enough to most Anglo-Indians; but every thing in the shape of compulsion is so distasteful to Englishmen, even for objects which they approve, that I should prefer to devote our efforts to the subject which has next to be noticed, namely—

(j) *Development of volunteer system.*

In the Bombay presidency we have three Volunteer corps—namely, that of Bombay, with 8 companies and 500 officers and men; that of the Great Indian Peninsula Railway, with 11 companies and 700 officers and men; that of the Bombay, Baroda and Central India Railway, with 2 companies and 150 officers and men. In all 21 companies, with a total effective strength of 1,350 officers and men. The movement has in some places arisen, and in other places materially advanced since 1877, partly on account of the political and warlike circumstances of the times; and I have of course done my best to encourage it. It is generally thought that the existing orders applicable to volunteering throughout India, though good so far as they go, might in several particulars be liberally expanded, so as to afford additional encouragement. These particulars, being purely matters of detail, need not be specified here. But I am sure that the most potent encouragement to my countrymen in Western India to volunteer will be the approach of real danger. Then, indeed, they will assuredly flock to the standards of the several corps which have been, or may yet be, organized.

Next our opinion is required on the—

“ *General military requirements of the Bombay presidency—*

(a) *for garrison purposes and maintenance of order;*

(b) *for internal and external military purposes irrespective of (a).”*

These questions presumably refer, in effect, to the Native army mainly; for it will probably be admitted immediately that the European force on the Bombay establishment is already as low as would be consistent with the general safety.

It may be as well, however, to summarize the numbers in the several arms of this European force, as below (*vide* East India Finance and Revenue Accounts for 1877-78 presented to Parliament) :—

	Officers and men.
Cavalry ... ..	488
Artillery ... ..	2,549
Infantry ... ..	8,271
Engineers ... ..	68
Invalid and Veteran establishment	11
Staff Corps ... ..	259
General List, Cavalry	13
Ditto, Infantry	26
Unattached officers ... ..	2
General officers unemployed	23
Total ... ..	11,710

Inside the presidency the distribution of European troops is in this wise—

Inland above the mountains from the Tapti river on the north down to Mysore on the south, an expanse of British territory 500 miles in length, there are ordinarily five batteries of artillery and three-and-a-half regiments of infantry. Of these regiments, two are at Poona, one of which furnishes a detachment to Satara, one is at Belgaum, and the half-regiment or wing is at Ahmednagar.

On the coast, or below the mountains, there are five batteries of artillery, half a regiment of infantry at Bombay itself, and one regiment distributed between Ahmedabad, Baroda, and Deesa.

In Sind there are two batteries of artillery and one regiment of infantry distributed between Kurrachee and Hyderabad.

At Aden there are three batteries of artillery and one regiment of infantry.

It is to be noted that there is no European cavalry stationed inside the presidency.

Outside the presidency, in Central India, there is one regiment of European cavalry, two batteries of artillery, and one regiment of infantry at Mhow, and half a regiment at Neemuch.

In Rajputana there is one battery of artillery at Nusseerabad and half a regiment of infantry.

The necessity of maintaining this European force in Western India depends partly on considerations affecting the Indian empire, which considerations need not be set forth here. This force is necessary to support British power, and the moral impression of that power during peace. Out of it a part ought to be, must be, would be, spared for war. But we cannot say beforehand what that proportion would be. That must depend on the circumstances of the occasion as it shall arise. Such circumstances might be menacing near the presidency, in which case the proportion to be spared for external war would be less. Or they might be comparatively favorable within the presidency, while extreme need existed at some distant point, in which case the proportion would be greater. It would be possible to imagine hypothetically a minimum European force, with which a crisis in Western India might possibly, with the favor of Providence, be surmounted; the unavoidable risks being incurred as incidental to such a crisis. But it would not be prudent to state beforehand such a conceivable minimum, because this would have the appearance of presumption in knowingly accepting those risks which ought not to be hazarded, save under absolute necessity. During any time of war, however, Western India is one of those portions of the empire which must be guarded effectually by European troops. And some stations especially could not be safely left at such a time for a moment without an adequate garrison of European infantry, namely, Poona, Satara, Belgaum, Deesa, Mhow, Nusseerabad, and Aden, to which should be added always a detachment in the fortress of Asseerghur in the Satpura range between the Nerbudda and Tapti. I have not included Bombay in the above, because the volunteer infantry there might, together with the regular artillery, hold the city in time of danger (though of course some regular infantry garrison would be desirable), nor Ahmedabad, because with the opening of the railway the station of Deesa would be near enough.

I should here mention, by way of reminder, that we have since 1877 consistently recommended, after careful consultation with the naval and military authorities, that for the two turret-ships at Bombay a strength of 200 Europeans should be provided, including marine artillerymen, who would be accommodated on shore, and would form a part of the Bombay army.

I must add, too, that in reference to the needs of the sea-ports of Bombay, Kurrachee, and Aden, an additional garrison battery is much wanted in the Bombay presidency.

I now advert to the Native portion of the army. Since the end of 1877 the normal distribution of the Native army has been slightly modified, owing to the demands for Malta, for Khelat, and for Afghanistan. But of recent years up to 1877 the distribution has been as follows:—

			Cavalry regiment.	Infantry regiment.
Deccan	...	Poona	1	3
		Ahmednagar	0	1
		Malegaon	0	1
		Satara	0	1
		Sirur	1	0
		Sholapur	0	1
		Kolhapur	0	1
		Dharwar	0	1
		Kaladgi	0	Dett.
Concan	...	Belgaum	0	2
		Bombay	0	3
		Tanna	0	Dett.
Central India and Rajputana.	...	Mhow	0	1½
		Indore	0	Wing.
		Nusseerabad	Squad.	1
		Neemuch	1	1
		Asseerghur	0	Dett.
Guzerat	...	Maithpur	0	1
		Ahmedabad	0	2
		Deesa	1	1
		Baroda	0	1
		Rajkot	Squad.	1
		Bhooj	0	1
Sind	...	Surat	0	1
		Kurrachee	0	1
		Hyderabad	0	1
		Jacobabad	3	1
		Aden	Troop	1
			7 & 1	30
			troop.	

Before indicating the force necessary for the general garrison of the country, I must ask remembrance of the fact that our Native battalions are numerically weak; their established strength consisting of only 712 officers and men, of whom 600 are sepoys.

It appears to me that, for garrison purposes and maintenance of order, the following Native force is needed in the Deccan above the Ghât mountains:—

	Cavalry regiment.	Infantry regiment.
Malegaon for Khandesh and Nasik	... 0	1
Sirur (near Poona)	... 1	0
Poona	... 1	4
Satara	... 0	½*
Belgaum	... 0	2
	—	—
	2	7½
	—	—

I set down four regiments of infantry for Poona, so that they may, if desired, make up two brigades with the two European infantry regiments there—an arrangement which, as I understand, the military authorities have often desired. In this case detachments might be furnished to Ahmednagar and Sholapur, at which latter place there is an unoccupied, but not dismantled, fort, near to the Nizam's frontier. But if Ahmednagar be kept up as a station, then one of the four regiments would be there, and three regiments would remain at Poona, as at present. But four regiments are necessary for this part of the country (whether placed at Poona, Ahmednagar, or elsewhere), in proof of which it is to be noted that a recent trouble (it could hardly be called disturbance) in this quarter occupied two battalions for its effectual repression, our Native battalions being so numerically weak.

For the station of Dharwar, held now by a battalion, a detachment from Belgaum might suffice. Kolhapur, having some local infantry of its own, might be left without British troops.

The two cavalry regiments above set down are indispensable, inasmuch as, taken together, they would not supply more than 700 sabres for service in a territory stretching from the Nerbudda to Mysore, and inasmuch as the mounted police are so few in numbers—too few to make an impression on any disturbance. In illustration of this, I may note that in the recent trouble, just alluded to, it was necessary to employ a whole cavalry regiment.

Similarly, in the country below the Ghât mountains, the following Native force is needed:—

	Cavalry regiment.	Infantry regiment.
Bombay	... 0	2½
Surat	... 0	1
Baroda	... 0	1
Ahmedabad	... 0	1
Deesa	... †1	1
Cutch (Bhooj)	... 0	1
Rajkot (Kattywar)	... 0	1
	—	—
	1	8½
	—	—

It is to be remembered that out of the Native infantry at or near Bombay, detachments have to be furnished for the Mekran coast and the Persian Gulf.

In Sind the following Native force is needed—

	Cavalry regiment.	Infantry regiment.
Kurrachee	... 0	1
Jacobabad	... 2	1
	—	—
	2	2
	—	—

and for Aden—

1 troop‡

1

For Central India and Rajputana there are needed the following Native troops:—

	Cavalry regiment.	Infantry regiment.
Mhow	... 0	1
Mehidpur	... 0	1
Necmuh	... 0	1
Nusseerabad	... 1	1
	—	—
	1	4

\* i.e., a wing, the other wing being added to the force at Bombay.

† Supplying detachments to Rajkot, if necessary.

‡ The Aden troop.

I have set down one regiment only for Mhow, the ordinary complement consisting of two regiments, on the assumption that the Governor-General's Agent there would assent to Mhow being left with only one regiment in event of external war.

The two mountain batteries (Native) would doubtless remain as they are.

The corps of sappers and miners, just 500 strong, officers and men, is already as low in strength as it could properly be.

If, in any modification of the distribution of the troops, it should be proposed to abandon any existing station, still we must remember that such changes involve cost; because thereby buildings previously used for the accommodation of troops have to be sacrificed, while possibly new buildings might have to be constructed elsewhere.

Again single-regiment stations—that is, stations where a regiment of Native infantry constitutes the only force—are justly considered by the military authorities to militate against efficiency; because the regiment cannot be exercised with other regiments in brigade manœuvres, does not come constantly under inspection by superior authority, and unavoidably deteriorates in various ways. Therefore, if (as often happens) some troops must for political reasons be kept at an isolated station, it were probably better that a detachment only be so kept, while the head-quarters of the regiment is at some larger station. I understand that the more the troops are concentrated in large stations, the better in a military point of view. But in this country political necessity often interferes with such concentration.

Further, it sometimes happens that political considerations demand that a certain total of strength be maintained in a certain part of the country, the detailed distribution being left to military convenience, and so on.

But be all this as it may, whatever be the distribution, still a certain strength of troops, as above set forth, is wanted for the protection of the country internally.

For purposes of garrison and maintenance of order, there are then needed—

				Cavalry regiment.	Infantry regiment.
Deccan	...	...	...	2	7½
Coast	...	...	...	1	8½
Sind	...	...	...	2	2
Aden	...	...	...	1 troop	1
Central India and Rajputana	...	...	...	1	4
				—	—
				6 & 1	23
					troop.

One corps sappers and miners and two mountain batteries.

Probably no person acquainted with the requirements of the country would venture to set down a force less than that indicated above for purposes of garrison and maintenance of order alone. In the above estimate there is no real margin whatever left for war or other demands of service. Possibly, by careful management, a company here and a company there, a troop here and a troop there, might be literally gleaned, so as to find men for foreign service; and in extreme need some troops might be abstracted from the proper garrison of the country and sent on to the front, notwithstanding all attendant risks to internal order. But doubtless our military arrangements are never made beforehand to incur risks, which can be reasonably foreseen and safeguarded.

This estimate, then, of six regiments of Native cavalry and one troop, and 23 regiments of Native infantry, required for garrison purposes and maintenance of order, as compared with the total Native army of the presidency, namely, seven regiments and one troop cavalry, called the Aden troop, and 30 regiments infantry, leaves just a slender margin of one regiment of cavalry and seven regiments of infantry for the objects set forth at (b), namely, "Internal and external military purposes irrespective of (a)." This slender reserve should continue to be kept at some point or other, or at various points within the presidency, according to the convenience of the time. And this is all that is left if we are required to meet requisitions from the Government of India, to supply troops for war on the frontier or beyond the sea, to despatch reinforcements to Aden or the Persian Gulf, to assist another presidency, or to deal with any more than ordinarily serious affairs within our own presidency.

Out of this reserve of seven regiments of Native infantry, there would be taken the troops for Quetta and Peshin, say four regiments, which would leave only three regiments to be kept within the presidency proper; and there are several of the stations abovementioned where additional troops are usually placed, besides those required for maintenance of internal order, notably such as Mhow, Ahmedabad, Hyderabad (Sind), and some stations which are now denuded of troops, but which ordinarily have one regiment each, such as Sholapur and Kolhapur.

In conclusion, it should be remembered that the established strength of the Bombay army consists of only 11,716 officers and men Europeans and 26,645 Natives, in all 38,355\*—an establishment about equal to an army-corps,—which is stationed in a territory abounding in difficulties, physical and moral, and stretching from the Punjab to Mysore, a distance of one thousand miles.

(Sd.) RICHARD TEMPLE.

## Statement showing the strength and distribution of the police, Bombay presidency.

[ Administration Report, Bombay, 1877-78. ]

District.	SANCTIONED STRENGTH OF POLICE FORCE.									Total of several divisions.
	Commissioner of Police.	Strength of district, cantonment, town, or municipal and water police paid for wholly or in part from Imperial revenues.						Strength of cantonment, town or municipal and water police paid wholly from other than Imperial revenues.		
		Number of district and assistant district superintendents.	Number of subordinate officers on Rs. 100 and upwards.	Number of subordinate officers on less than Rs. 100.	Number of mounted police constables.	Number of foot police constables.	Number of water police constables.	Officers.	Men.	
1	2	3	4	5	6	7	8	9	10	
<i>Northern Division.</i>										
Ahmedabad ...	...	2	3	226	101	902	...	...	...	...
Kaira ...	...	1	1	142	35	575	...	...	...	...
Panch Mahals...	...	2	2	111	36	673	...	6	30	...
Broach ...	...	1	2	77	22	315	...	...	...	...
Surat ...	...	1	2	118	23	509	...	...	4	...
Tanna ...	...	1	2	146	...	659	...	...	...	...
Colaba ...	...	1	2	56	...	260	...	3	10	...
<b>Total</b> ...	...	<b>9</b>	<b>14</b>	<b>876</b>	<b>217</b>	<b>3,893</b>	...	<b>9</b>	<b>44</b>	<b>5,062</b>
<i>Central Division.</i>										
Khandesh ...	...	3	3	275	83	1,358	...	...	...	...
Nasik ...	...	1	2	127	29	586	...	9	40	...
Ahmednagar ...	...	1	2	107	26	485	...	3	18	...
Poona ...	...	1	2	182	25	894	...	...	60	...
Sholapur ...	...	1	1	96	15	427	...	...	3	...
Satara ...	...	1	2	188	18	779	...	...	...	...
<b>Total</b> ...	...	<b>8</b>	<b>12</b>	<b>975</b>	<b>196</b>	<b>4,529</b>	...	<b>12</b>	<b>121</b>	<b>5,853</b>
<i>Southern Division.</i>										
Belgaum ...	...	1	1	115	9	543	...	...	...	...
Dharwar ...	...	1	2	120	28	599	...	...	...	...
Kaladgi ...	...	1	1	109	27	517	...	...	...	...
Canara ...	...	1	2	115	...	580	...	...	...	...
Ratnagiri ...	...	1	2	123	...	639	...	...	...	...
<b>Total</b> ...	...	<b>5</b>	<b>8</b>	<b>582</b>	<b>64</b>	<b>2,878</b>	...	...	...	<b>3,537</b>
<i>Sind.</i>										
Kurrachee ...	...	2	5	195	160	1,078	...	20	257	...
Hyderabad ...	...	1	4	125	137	625	...	...	98	...
Shikarpur ...	...	1	5	163	165	795	5	18	130	...
Thar and Parkar ...	...	...	1	71	316	110	...	...	14	...
Frontier, Upper Sind ...	...	...	1	12	39	161	...	2	84	...
<b>Total</b> ...	...	<b>4</b>	<b>16</b>	<b>566</b>	<b>817</b>	<b>2,769</b>	<b>5</b>	<b>40</b>	<b>583</b>	<b>4,800</b>
<i>Railway.</i>										
G. I. P. Railway ...	...	1	...	...	...	...	...	84	495	...
B., B. & C. I. Railway ...	...	1	...	...	...	...	...	50	349	...
<b>Total</b> ...	...	<b>2</b>	...	...	...	...	...	<b>134</b>	<b>844</b>	<b>980</b>
City of Bombay ...	1	1†	...	...	...	284*	...	...	1,129*	1,415
<b>GRAND TOTAL</b> ...	<b>1</b>	<b>29</b>	<b>50</b>	<b>2,999</b>	<b>1,294</b>	<b>14,353</b>	<b>5</b>	<b>195</b>	<b>2,721</b>	<b>21,647</b>

\* The numbers returned for the city of Bombay include subordinate officers and constables, both mounted and foot, no details having been supplied.

† Deputy Commissioner.

*Minute by His Excellency the Commander-in-Chief, Bombay Army, dated 30th July 1879.*

The views of the Government of Bombay are so admirably expounded in His Excellency the Governor's minute, that I do not propose to make any remarks on the political necessities of this presidency.

I desire, however, to offer some remarks on those points raised in Government of India letter No. 204-S.B. which have a more strictly military bearing.

(h) European and Eurasian population, considered as—

(1) strength in combatant power and for the maintenance of order ;

(2) weakness in necessity for provision of safety of non-combatants, women and children ;

(3) of possible greater utility than at present if organized for the maintenance of order in case of disturbance.

and children, must ever be a source of weakness rather than of strength to the British Government. For some of the large centres, such as Bombay and Poona, it might be possible to utilize the men as defenders of a place of refuge in case of a general rising of the Natives against the English rule ; but even then the assistance they could give would do but little more than meet the extra demands which the presence of their families would give rise to. As long as there is no open disaffection among the Natives of India, and no organized opposition to the English Government, the presence throughout the country of Europeans, even singly or in small numbers, is doubtless beneficial, and tends to maintain order ; but I consider that their existence throughout India must, in times of real danger, be counted a responsibility and a charge with no sort of commensurate advantage in the matter of military strength. The application to this increasing class of the population of some form of organization is without doubt desirable, as giving some hope that in great emergencies a portion of them at any rate could be utilized to defend and protect their own families and property.

Both these methods of giving a military organization to the European and Eurasian population in India have their merits as well as their defects. I

(i) Question of compulsory enrolment.

(j) Development of the volunteer movement.

assume that the compulsory enrolment referred to includes the elementary training of every able-bodied European and Eurasian so enrolled ; and their enforced attendance at a certain number of drills every year. Such an arrangement would possess an element of certainty and stability to which no system of volunteering could ever attain ; and in this respect compulsory enrolment must be held very superior to any development of the volunteer movement. On the other hand, there can be no doubt about the unpopularity of such a measure, and the strong opposition which would be raised both in India and in England to its adoption. It would also be an extremely costly arrangement, as it would be necessary that the means of military instruction should be brought to each enrolled man, or the individual brought in to the large centres for periodical training. When it is remembered how scattered are the members of the European and Eurasian population, it will at once be recognized how heavy would be the cost of any attempt at a universal application of compulsory enrolment ; and it would be in the highest degree unfair to apply the system only to those who are resident in large towns or near military stations, while exempting from its operation those in isolated positions, where military training would be specially necessary.

Although volunteer corps can show a certain kind of success in most of the large centres in India, and their members attain a respectable degree of proficiency, it must be acknowledged that up to the present the movement has only drawn within its influence a very small percentage of the available population, and that as a means of utilizing the Europeans and Eurasians in India it must be considered a failure.

The causes of this are no doubt—

1st, the natural disinclination of men (who have to earn their livelihood by labor, whether of head or hand, in an uncongenial climate) voluntarily to devote their short leisure time to a course of unremunerative labor ; and

2nd, the fact that volunteering imposes on both officers and privates an amount of extra expenditure which neither class is able to bear.

Were it probable that the European and Eurasian population in India could be made a really effective force by means of compulsory enrolment, I would, despite its unpopularity, advocate the adoption of the system. But I do not see how this could be hoped for, and therefore I would deprecate the application to India of a scheme based on enforced training ; and would prefer an effort to develop the volunteer movement, it being clearly understood that, however good may be their moral effect in times of peace, entire dependence cannot be placed on *volunteers* in times of danger, unless their enrolment for service in such times is made compulsory, by bringing all volunteer corps under military law.

The 1,350 Railway volunteers shown in His Excellency's minute may guard Railway property, and keep open the railway lines, thereby dispensing with the services of a certain number of regular troops, who would otherwise be required for these purposes ; but, as an armed military body, the Railway volunteers cannot be depended upon ; nor can it be expected that the Bombay Volunteer Rifle Corps would desert their families until the latter were placed in safety, or abandon their property to destruction unless compelled to assemble at certain fixed points to serve as an armed force for the general protection of the city.

The development of the volunteer movement cannot, I fear, be arrived at by any further appeal to the military or patriotic feelings of the European and Eurasian population, but must be obtained by an expenditure of State funds. It must be remembered that the adoption of compulsory enrolment would entail, as a matter of course, the payment of the men while undergoing training, which would be a very serious matter, and in comparison with which the expenditure which I would propose on the volunteer force would be trifling. There are a certain number of Europeans, and a much larger number of Eurasians, in poor circumstances who would be attracted to the volunteer force if they were guaranteed against all expense, and could obtain some small pecuniary benefit from their connection with it.



I would therefore propose that, in addition to the present capitation allowance, which should go, as now, for regimental purposes, each volunteer should be enabled to earn a further annual grant, which would vary from Rs. 20 to Rs. 50 according to his proficiency in the use of his rifle and the number of parades he had attended, and that this grant should be given to the individual who had earned it.

There are other minor points, such as assistance to enable corps to go into camp once a year, provision of offices and armouries and of rifle ranges, which would tend to make the movement popular.

General military requirements of the presidency—  
(a) for garrison purposes and maintenance of order;  
(b) for internal and external military purposes irrespective of (a).

The Bombay army consists of—

- 1 Regiment British cavalry.
- 2 Batteries horse artillery.
- 10 " field artillery.
- 7 " garrison artillery.
- 2 Mountain batteries.
- 9 Regiments British infantry.
- 7 " Native cavalry.
- 5 Companies sappers and miners.
- 30 Regiments Native infantry.

On calculating the number of infantry required to furnish the guards, it appears that under ordinary circumstances about 2,000 Europeans and 8,000 Natives would suffice for the mere garrison duties of the presidency. I use the word "garrison" in its technical and military sense; that is, for the guards and routine duties of military stations. But, as indicated by the Government of India, it is also necessary to consider the force required for the maintenance of order, and, in calculating the force required for internal and external military purposes, to give due weight to the existence of many powerful Native States bordering on the limits of this presidency.

Distributed as presently shown, the troops now employed within the presidency command are in a position to meet all probable demands for internal military purposes, and will furnish on occasions of necessity a small force for external or foreign service.

At present we have the following troops on special service on and beyond the frontier of Sind, *viz.* :—

1 Battery field artillery,  
1 Mountain battery,  
and should necessity arise for putting more troops in the field, the following additional corps might be made available by withdrawing them from such stations as at the moment might be found most expedient :—

- 1 Field battery.
- 1 Heavy " "
- 1 Mountain " "
- 2 Regiments Native cavalry,
- 4 " " infantry;
- 1 Regiment British infantry.
- 1 " Native cavalry.
- 2 Regiments " infantry.

*Distribution.*

Stations.	Royal horse artillery.	Field artillery.	British cavalry.	Garrison artillery.	British infantry.	Native cavalry.	Native infantry.	Sappers and miners.
Sind	...	2	...	...	1	3	3	...
Bhoj	...	...	...	...	...	...	1	...
Rajkot	...	...	...	...	...	...	1½	...
Deesa	...	1	...	...	1	1	1	...
Ahmedabad	...	...	...	...	D	...	2	...
Baroda	...	...	...	...	D	...	1	...
Surat	...	...	...	...	...	...	1	...
Bombay	...	...	...	3	...	...	2½	...
Kirkee	1	2	...	...	D	...	...	1
Poona	...	...	...	...	2	1	3	...
Sirur	...	...	...	...	...	1	...	...
Satara	...	...	...	...	D	...	½	...
Belgaum	...	1	...	...	1	...	2	...
Ahmednagar	...	1	...	...	...	...	1	...
Asseergurb	...	...	...	...	D	...	D	...
Malegaon	...	...	...	...	...	...	1	...
Mhow	1	...	1	1	1	...	1½	...
Indore	...	...	...	...	D	...	½	...
Mehidpur	...	...	...	...	...	...	1	...
Neemuch	...	1	...	...	D	1	1	...
Nusseerabad	...	1	...	...	1	...	1	...
Dharwar	...	...	...	...	...	...	1	...
Sholapur	...	...	...	...	...	...	1	...
Kolhapur	...	...	...	...	...	...	1	...
Aden	...	...	...	3	1	...	1	...
Tanna or elsewhere	...	...	...	...	...	...	½	...
TOTAL	2	10	1	7	9*	7	30	1

\* These nine regiments are inclusive of the detachments represented by the letter D in this column.

It seems hardly necessary to put forward arguments to prove that it would be hopeless to look for efficiency or military spirit from a body of troops whose sole functions were to carry out certain routine duties in garrison, and preserve order among the civil population.

It is, however, evident throughout the communication from the Government of India that it is held to be indispensable that we, as the governing class in this country, should be prepared for organized opposition to our rule, not only from without our borders, but within them; and this being so, the necessity for a well-trained and highly-disciplined military force is clear. These qualities can only result from practical training in the field, and, when opportunity offers, against an enemy; and from both of these opportunities this army would be debarred if it were reduced to a strength barely sufficient for the internal routine duties devolving on it. Important as these considerations are, a still stronger reason remains to be urged against any reduction in the strength of the rank and file of the Western army; and that is the vast importance of maintaining between the various component parts of the army of India such a balance of power as would render it impossible for any one section of the military forces to attain a dangerous pre-eminence. It appears to be universally admitted that the interests of the empire demand that a diversity of sentiment and feeling should be preserved between the various territorial divisions of the army of India; and it is clear that this important principle is seriously affected if one division is allowed to exceed another in number to any great degree. The Native armies of India as they now stand show an approximate strength as follows, *viz.*,—

Bengal army	...	...	...	...	47,500
Corps under the Government of India	...	...	...	...	26,500
Madras army (about)	...	...	...	...	32,000
Bombay army	...	...	...	...	25,000

from which figures it may be deduced that, if the principle referred to is accepted as of any value and worthy of being upheld, it is essential that no reduction whatever in actual numbers should be admitted in this army.

It is highly satisfactory to find that, except in minor details, so little difference exists in the opinion of the civil and military authorities regarding the distribution of the force throughout the Bombay presidency, and that all are of opinion that no material reduction can be made in the actual strength of the army.

Should it be found practicable to reduce the number of stations and the detachments from European regiments, I feel satisfied it would increase the efficiency of the British regiments.

(Sd.) H. J. WARRE, *Lieut.-General.*

## F.—CENTRAL INDIA.

No. 1227, dated Indore, 11th August 1879.

From—LIEUT.-GENL. SIR H. D. DALY, K.C.B., Agent, Governor-General for Central India,  
To—The President, Army Organization Commission, Simla.

I have the honor, in obedience to instructions received from the Secretary to Government in the Military Department, to submit my reply on the questions under consideration.

### (a) *Strength of Native population.*

There are 71 Native States in Central India, big and little, with a population estimated at 8,361,571, spread over an area of 88,738 square miles. This may be assumed as fairly correct in the

Gwalior	...	...	2,500,000
Indore	...	...	635,450
Bhopal	...	...	769,200
Rewah	}	...	2,035,000
(Baghelcund)			
Oercha	...	...	195,000
Datia	...	...	180,000
Panna	...	...	133,000
Chirkhari	...	...	121,000
Bijawar	...	...	102,000
Chhatarpur	...	...	170,000
Santhar	...	...	108,000
Smaller States	...	...	219,000

absence of a general census, which has at no time been simultaneously taken in States having little or no connection one with another. Four States—Gwalior, Indore, Bhopal, Rewah—count more than half of the population of Central India.

Bundelcund has an aggregate population of 1,279,000, spread over 20,000 square miles.

Western Malwa, exclusive of the possessions of Scindia and Holkar, numbers about 242,000; while the Bheel Agency, with petty Chiefs and Thakurs, count 252,592. Thus the population of the Native States of Central India may be assumed to be not far short of 8½ millions.

### (b) *European and Eurasian population, exclusive of army.*

These can hardly be said to exist in Central India, the few descendants of adventurers, French, Italians, English, who served in Dowlut Rao's army, with the conspicuous exception of Jean Baptiste's descendants now living in Scindia's service at Gwalior, have lost their language, name, and nationality.

### (c) *State of feeling.*

Four of the States, composed chiefly of Rajputs, are held by Mahrattas—Scindia, Holkar, Dhar, Dewas—who, almost within the memory of living man, ruled by plunder and bloodshed. Peace and order, established by the British Government and maintained by British garrisons, bringing with them security, have won the people to habits of industry and almost contentment. But the feeling displayed in 1857-58 by Rajput Thakurs towards Scindia round Gwalior, and Holkar in Malwa, showed that the old spirit is not dead. A word would have put them in arms.

The Muhammadan rulers, especially Bhopal and Jowra, foreigners though they are, have been more fortunate in winning their hold on the people. Their rule is popular.

In Bundelcund, amongst Bundelas, Ahirs, Gujars, the feeling towards the Chiefs is feudatory and strong. The same amongst the Baghels: despite oppression and hard poverty, the spirit is loyal to the hereditary Chief.

With regard to the state of feeling in Native States towards the British Government, my experience confirms the observations and conclusions of Colonel Sutherland, than whom no sounder Englishman has lived amongst the Chiefs and people of India, that in Native States and at Native Courts the presence of an English officer is hailed as a safeguard against oppression. The visit of the Governor-General's Agent to a Native Court, his passage through a State, is the event of the year. Chiefs and people invest the Agent with mysterious influence, and all receive his camp with acclamation. The Chief thinks his position and dignity strengthened. Thakurs and subjects hold that they owe peace and prosperity to the great Government which the Agent represents. The Agent comes into no collision. He has nothing to assess; no tax to levy. He is the mediator between the people and the Chief, between the Chief and the Government of India.

This feeling plainly spoke in results during the troubled time of 1857-58. While in British territory an Englishman hardly found a resting-place for his feet, in Native States he was welcomed and sheltered.

(d) *Elements of danger.*

Under this head general opinion, handed down from the days when the armies of Scindia and Holkar struggled with the British for mastery, holds that the armies of the present day are still formidable, and that Scindia's is specially so, as he passes thousands of his subjects through the ranks, thus making reserves of his people.

The Political Agent, in reviewing the state of the Gwalior regular army in March last, having seen all available paraded at a camp of exercise, commanded by the Maharaja, reported that recruiting had not kept pace with dismissals, resignations, and casualties. The force was 2,100 combatants below the treaty number of all arms of disciplined troops (*viz.*, 7,200).

The men who form this force are mainly drawn from the British provinces. The cavalry (about 1,200) are chiefly Muhammadans from the North-Western Provinces, with pay of Rs. 22 per mensem; infantry (3,600), Rs. 7 (Chandoree). In this body there may be 800 or 900 Gwalior subjects, mostly wandering Muhammadans, a poor class. There is not a Mahratta in the ranks. The few Mahrattas who remain are silladars in the irregular service.

The artillery is efficient and well cared for—two batteries of 6-pounders, horsed, five field-battery trains, 9-pounders (bullocks), two 18-pounders, elephants. The treaty number (480) is not maintained, the present strength being about 100 short. The men are chiefly our own Poorbeahs, with some 50 or 60 men from the Deccan. The high price of food which has prevailed in Gwalior during two years of famine has led to a reduction in the Gwalior force through resignations and dismissals. The element of danger here would be, supposing mutiny in the Indian army, the effect on British-born sepoy in the Gwalior service; but there is little in that poorly-armed body to cause anxiety.

*Indore.*—Holkar has no army worthy the name. Three regiments of Poorbeahs, fairly drilled; cavalry also from British India, badly drilled and mounted. The artillery (bullocks) in use is good and well-appointed, manned by Poorbeahs.

Bhopal has a small body of troops in fair order for the work they have to do.

In Bundelcund the people are a warlike race, and capable of being first-class soldiers; but they shrink from regular service. Every man bears sword and matchlock.

*Baghelcund, Rewah.*—The Thakurs and Baghels are a splendid body of men, living in a state of semi-independence. The disciplined soldiers in the service of Rewah were chiefly refugees, British sepoy of the mutiny period, now dying out.

One conspicuous element of danger in 1857-58 was the want of roads through Native States, in which rebel sepoy sought shelter and plunder. That difficulty has been removed. Metalled roads now intersect Bundelcund, Malwa, and Central India. Mhow, which was unapproachable in the rains of 1857, is now linked to Gwalior by a metalled road. The rail courses past it, and will soon be at Neemuch, and in communication with Nusserabad and Agra by the Rajputana State Railway.

(e), (f), (g), *The police.*

Life and property in Malwa, and along the Agra and Bombay road, from Mhow to Gwalior 305 miles, are now as secure as in any part of British India. In the days before the mutiny passage along that road was never attempted without an escort. Large gangs of dacoits moved about the country. Patrols of the Central India Horse have wrought this change. Without these troops and the Bhopal Battalion the feeling of security would give way. Holkar will not forego the presence of a wing of Bombay Native infantry at Melhidpur in place of the united Malwa contingent of three arms, through fear of this anchor slipping; though the withdrawal of the wing would restore the rich opium land of the cantonment, and relieve his territory of British sepoy.

I now come to the general military requirements of Central India; and here I would refer to a "Report on the garrisons within the Central India Agency, in view to deciding which should be reduced or strengthened and which abandoned," submitted by me to the Secretary to Government in the Military Department on 5th January 1872, in which the question was fully discussed. I have asked the Secretary to lay a copy of that report before you, in view to its being attached to this letter.

British garrisons in Native States should be few and strong. Local corps which are maintained at the cost of Chiefs are popular with them and the people, and form a valuable link between us. The Central India Horse, with head-quarters 150 miles apart, have a personal acquaintance with every village Thakur. Every track, every stream in the country, is familiar to them. The officers, selected men, know how to associate with Chiefs and people; and exercise vast influence in favor of the prestige of the Government of India.

Since submitting my report in January 1872, enormous changes have taken place in roads and railways, which strengthen the view then expressed. I suggested the abandonment of Jhansi and Nagode as cantonments in Bundelcund, and the consolidation of our garrison at Nowgong, 100 miles from the East Indian Railway at Sutna.

Nagode has been abandoned. Jhansi is still the head-quarters of a British infantry regiment, and a Native regiment with detachments at the fortress of Gwalior and Lalitpur. With the fort and city of Jhansi in Scindia's hands, the position of this weak garrison, without guns, is indefensible from any point of view.

On the completion of the railway to Gwalior, the retention of Morar as a cantonment will be subject for consideration.

As the crow flies, the straggling barracks of Morar are 6 miles from the fortress, and scarcely visible. In the event of trouble in the city, the cantonment could afford little support; but the fort could lay in ruins every building in the city, which is at its feet.

We are bound by treaty to keep a "Subsidiary Force" constantly stationed within the Maharaja's territory, the expense of which shall not be less than 16 lakhs per annum; but this would admit of modification in friendly intercourse with the Maharaja.

For all the purposes of the Government of India, the tenure of the fortress, with rail to Agra, is ample. The fortress is the high place, Morar nothing.

The railway from Indore to Neemuch will be at Mandsaur, within 30 miles of Neemuch, by the end of this year.

With Neemuch and Nusseerabad, 140 miles apart, linked by rail, as they will be in three years, the maintenance of British cantonments at both places in the present form will be unnecessary. Good barracks have been built at both cantonments. Neemuch belongs to Scindia; but the territory of Holkar, Oodeypore, and Tonk meet there, and the people around are lawless and turbulent. It will be necessary under any circumstances that the place should not be abandoned.

In my report of January 1872, paragraph 24, I drew attention to the danger of artillery in Native States. I had just become aware of Maharaja Holkar's factory and arsenal. Since 1872 great progress has been made in arms of precision and gunnery in the British army. Amongst the Natives of India there has not only been no change in this respect, but trained artillerymen are rare; and every step in advance taken by us removes apprehension of danger. So long as the manufacture of guns of precision is kept down in India, and Native gunners find no place in our service, the chances of serious trouble are small.

*Garrisons to be maintained.*

- (1) *Mhow*, 1,900 feet above the sea, admirably suited for British troops.  
*Indore* (garrisoned from Mhow, as at present).
- (2) *Fortress Gwalior*.
- (3) *Neemuch*.—In the event of Nusseerabad becoming the larger garrison, a regiment of Native infantry and squadron of Native cavalry will be necessary.
- (4) *Nowgong*.—In the heart of Bundelcund, 65 miles from Jhansi, 120 from Gwalior, 100 from Sutna, with metalled roads.

*Garrisons by Contingents.*

*Augur* } —(Scindia) Central India Horse.  
*Goona* }  
*Schore*—Bhopal Battalion and detachment Central India Horse.  
*Sirdarpur*—Malwa Bheel Corps.

*To be abandoned by troops of the line.*

*Jhansi*—  
*Mehidpur*—(Holkar), formerly head-quarters of Mehidpur Contingent. Wing Native infantry to be withdrawn; detachment Central India Horse to remain.

*Statement showing the cantonments in Central India, how garrisoned, and their present and proposed strength.*

NAMES OF CANTONMENTS.	PRESENT STRENGTH.					PROPOSED STRENGTH.					REMARKS.
	CAVALRY.		ARTILLERY.	INFANTRY.		CAVALRY.		ARTILLERY.	INFANTRY.		
	European.	Native.	European.	European.	Native.	European.	Native.	European.	European.	Native.	
<b>MHOW DIVISION.</b>											
Mhow ...	1	...	2 Batteries	1	1½	1	...	2 Batteries.	1	2	Minimum. To depend on Nusseerabad. Wing N.I. to be withdrawn. Wing might be withdrawn. Supplied from Mhow. Bhopal Battalion. Malwa Bheel Corps.
Neemuch ...	"	1	1 Battery.	Wing.	1	...	...	...	...	...	
Mehidpur ...	"	Det. C.I.H.	"	"	½	...	...	...	...	...	
Augur ...	"	1	"	"	½	...	...	...	...	...	
Indore ...	"	"	"	(1 Co.)	½	...	Det. C.I.H.	...	1 Co.	Wing.	
Schore ...	"	Det. C.I.H.	"	"	1	...	...	...	...	1	
Sirdarpur ...	"	"	"	"	1	...	...	...	...	1	
<b>GWALIOR DISTRICT.</b>											
Morar and Fort ...	"	1	3 Batteries.	1½	2	1	...	3 Batteries.	1½	2	If held, no reduction possible. Det. from Gwalior (Cavalry). C. I. Horse.
Jhansi ...	"	1 Squad.	"	½ Hd. Qrs.	1	...	...	...	...	...	
Sipli ...	"	(Detacht)	"	"	"	...	...	...	...	...	
Goona ...	"	1	"	"	"	...	1	...	...	...	
<b>SAUGON DISTRICT.</b>											
Nowgong ...	"	1 Squad.	1 Battery.	(3 Co.)	4 Co.	...	1 Squad.	1 Battery.	1	1	
Sutna ...	"	1 Do.	"	"	"	...	1	...	...	...	

The above represents a force of—  
7 Batteries Royal artillery.  
1 Regiment of European cavalry.  
8 Regiments of Native cavalry—  
1 Bombay.  
2 Bengal.  
3 C. I. Horse.  
3½ Regiments of European Infantry.  
9½ Do. Native Infantry—  
4 Bombay.  
2 Bengal.  
1 Bhopal Battalion.  
1 Malwa Bheel Corps.

(Sd.) H. D. DALY, Lt.-Genl.,  
Agent, Govr.-Genl. for Central India.

No. 5M., dated Camp Kuchnara, 5th January 1872 (*Confidential*).

From—MAJOR-GENL. SIR H. D. DALY, C.B., Agent, Governor-General for Central India,

To—The Secretary to the Government of India, Military Department.

I have the honor to reply to your No. 59 of 2nd November last, calling for a report on the garrisons within the Central India Agency, in view to deciding which should be reduced or strengthened and which abandoned.

2. The Native States within the Central India administration comprise an area of some 84,000 square miles, nearly equal to that of England, Wales, and Scotland united. The total military force at the disposal of the Government of India in the stations now occupied in this territory is as follows:—

8 Batteries of artillery.  
1 Regiment of British dragoons.  
8 Regiments and 3 companies of British infantry.  
5     "     of Native cavalry.  
11    "     of Native infantry.

Distribution is given below. The troops belong to the presidencies of Bengal, Madras, and Bombay. Two corps of the Native cavalry (the Central India Horse), 2 Native infantry, the Bhopal Battalion, and Malwa Bheel Corps have fixed head-quarters within the Agency; and though the Central India Horse and Bhopal Battalion have been raised for general service, practically they are local corps, performing the duties in Malwa of the great contingents, Gwalior, Mehidpur, and Bhopal, which mutinied in 1857, and, like the Malwa Bheel Corps, are supported by contribution (under treaty) from Native States.

**MHOW DIVISION (BOMBAY ARMY).**

**MHOW.**

*Artillery.*

E Battery D Brigade, Royal Horse Artillery.  
No. 1 Battery 6th Brigade, Royal Horse Artillery.

*British Cavalry.*

15th (The King's) Hussars.

*British Infantry.*

49th Regiment of Foot.

*Native Infantry.*

10th Regiment, Native Light Infantry.

16th Regiment, Native Infantry.

**NEEMUCH.**

*Artillery.*

D Battery 18th Brigade, Royal Artillery.

*British Infantry.*

Detachment, 59th Regiment.

*Native Cavalry.*

3rd Regiment, Light Cavalry.

*Native Infantry.*

22nd Native Infantry.

**MEHIDPUR.**

25th Regiment, Native Light Infantry (head-quarters).

**AUGUR.**

Wing, 25th Regiment, Native Light Infantry.

**INDORE.**

1 Company from the British infantry at Mhow.

3 Companies from one of the Native Infantry regiments at Mhow.

**GWALIOR DISTRICT (BENGAL ARMY).**

**MORAE FORT.**

*Royal Artillery.*

B Battery F Brigade, Royal Horse Artillery.

C Battery 16th Brigade, Royal Artillery.

Head-Quarters, 24th Brigade, Royal Artillery.

No. 4 Battery 24th Brigade, Royal Artillery.

No. 3 Battery 25th Brigade, Royal Artillery.

*British Infantry.*

1st Battalion 11th Foot.

Detachment, 106th Foot.

*Native Cavalry.*

6th Bengal Cavalry.

*Native Infantry.*

6th Native Infantry.

34th Ditto.

**JHANSI.**

*British Infantry.*

106th Foot.

*Native Cavalry.*

Squadron, 14th Bengal Cavalry.

*Native Infantry.*

39th Regiment, Native Infantry.

**SIPRI.**

*Native Cavalry.*

Detachment, 6th Bengal Cavalry.

*Native Infantry.*

Detachment, 39th Native Infantry.

**SAUGOR DISTRICT (BENGAL AND MADRAS ARMIES).**

**NOWGONG.**

*Royal Artillery.*

F Battery 23rd Brigade, Royal Artillery.

*British Infantry.*

Detachment, 106th Foot.

*Native Cavalry.*

3rd Bengal Cavalry.

*Native Infantry.*

Wing, 15th Madras Native Infantry.

**NAGODE.**

*Native Cavalry.*

3rd Bengal Cavalry (detachment).

*Native Infantry.*

6th Madras Native Infantry.

**LOCAL CORPS OF THE CENTRAL INDIA AGENCY.**

**AUGUR.**

1st Regiment, Central India Horse.

**GOONA.**

2nd Regiment, Central India Horse.

**SEHORE.**

Bhopal Battalion.

**MEHIDPUR.**

Detachment, Central India Horse.

**SIRDARPUR.**

Malwa Bheel Corps.

3. Previous to 1857, the only European soldiers throughout Central India were the few gunners of the batteries at Mhow and Neemuch. Morar, Mhow, Neemuch, Nowgong, Jhansi, were without a British bayonet. The Great Indian Peninsula Railway had as yet accomplished but a short part of its course, and Mhow, with the deadly jungles below the Vindhya and incomplete roads, was with difficulty accessible from the south, and during the rains the 14 miles between it and Indore were not traversable by carriages.

4. The Mhow and Neemuch road was but a jungle track; and between Mhow and Agra, some 400 miles, few of the small streams and none of the large rivers were bridged; and for scores of miles together dacoits and wild beasts were in possession. Jhansi was similarly cut off from Morar, for that road of 70 miles was unmade.

5. Nowgong in Bundelcund was isolated; and Nagode pretty much the same. Since 1857, the change in Central India has been marvellous. We have now bridged roads and accessible cantonments with British bayonets and guns, where formerly these things were conspicuously absent; and the work of transition is still so busy, that it is difficult to write about garrisons which were put down before the change set in.

6. I will begin with *Mhow* on the crest of the Vindhya, 1,850 feet above the sea. From salubrity and position Mhow will form one of the prominent garrisons in the country. The rail is now within 80 miles. Four years hence the Nerbudda will be bridged, and the rail will pass by Mhow to Neemuch through Rajputana to the north-west. Mhow will then form one of the available reserves of India. It is within 14 miles of Indore and 100 of Bhopal; and there is now an admirable road through the heart of Central India from Mhow to Gwalior, 310 miles, by Bioura, Goona, and Sipri, which can be traversed by a mail-cart at all seasons at 12 miles an hour. Thus Mhow with rail and roads will command Central India and be a ready reserve for Rajputana.

7. *Neemuch*, 170 miles to the north-west of Mhow and about 150 miles from Ajmere, with railway communication north and south, will be the imperial garrison for Rajputana. It is 1,550 feet above the sea-level on laterite soil, and should, with well-built barracks, be little, if at all, inferior to Mhow in point of health. With roads linking the cities of Native States to various stations along the rail, Neemuch, with a British regiment of infantry and two batteries of artillery, and Native troops as at present (1 cavalry and 1 Native infantry), supported by Mhow, would suffice for all the purposes of the Government of India in Rajputana.

8. *Mehidpur*, in Holkar's territory, 74 miles north of Mhow and 30 miles west of Augur, was the head-quarters of the Mehidpur Contingent, supported by contributions from Holkar, Jowra and Dewas. The contingent, consisting of artillery, cavalry, and infantry, mutinied in 1857, since which its place at Mehidpur has been taken by a regiment of Bombay Native infantry and a detachment of Central India Horse from Augur.

9. The site of the lines on the banks of the Sipra is so confined, that it was found necessary to remove one wing permanently to Augur, and, but for the change thus afforded, the men would not be able to remain at Mehidpur.

10. The cantonment is liable to inundations from the rise of the Sipra during the rains. Three times within the last few years the sepoys with their families have saved life and property by flight into the city; but so sudden was the river's rise last year, that, but for daylight, the result would have been terrible. For six months in the year 30 per cent. of the small garrison are in hospital from fever, and frequently this number has been exceeded. Committees have been twice assembled in view to selecting another site; but the country affords none.

11. Mehidpur should cease to be a cantonment; and if, under treaty engagements with Holkar, it is necessary to provide troops for the district, other arrangements should be made.

12. Mehidpur is without roads; and a handful of sickly sepoys in such a place is not a creditable garrison.

13. *Morar and the Fortress of Gwalior*.—I have nothing to say respecting these garrisons, having already expressed my opinion.

14. The cantonments of Goona, Augur, Sehore, Sirdarpur, held by the Central India Horse, Bhopal Battalion, and Malwa Bheel Corps, do effective silent service in preserving order and security. These troops enable the Government of India to maintain imperial garrisons intact; and they form out-posts, and give our officers valuable opportunities of being acquainted with the feelings of the people of Native States, and what is actually going on within them.

15. *Sipri* (Scindia's) on the Agra and Bombay road, midway between Goona and Gwalior (about 60 miles from each), about 1,500 feet above the sea, was a sanitarium for British troops during the operations of 1858-59, and previous to the mutiny was a garrison of the Gwalior Contingent. From salubrity of climate and position on the trunk road of Central India, and at the head of an excellent road lately constructed connecting Jhansi (63 miles) and Bundelcund with Rajputana and the west, it must always be an important military post. During the last few years it has been in the hot and rainy months a sanitarium for the British regiment at Jhansi. With the abandonment of Jhansi, it is feared Sipri may be lost sight of. Scindia is anxious to make it a cantonment of his own—a step much to be deprecated. The massing of his troops at Gwalior is far preferable to his occupying Sipri with the command of important roads and on the skirts of Rajputana.

16. Sipri, though it ceases to be a British cantonment, should remain a post held by a small detachment of Native cavalry, either from Goona or elsewhere.

17. I now come to *Bundelcund*, with 35 Native States,  $9\frac{1}{2}$  millions of people, and an area of 22,000 square miles, or a little more than one-fourth of the territory within the Central India Agency—a province exceeding the kingdom of Greece in area, and with twice its population; and about one-third less than Ireland in area and population. At the time of the mutiny, Bundelcund was almost without a permanent road. Now there is an excellent road connecting Nowgong with Jhansi and Sipri to the west, with bifurcation to Gwalior and Agra; and great progress has been made in completing the trunk highway between Nowgong and Sutna, 100 miles. When this work shall be done, there will be carriage communication right through Bundelcund from east to west, with various roads to Banda, Saugor, Sringgur, Culpec, intersecting.

18. The present cantonments in Bundelcund connected with Central India are Jhansi, Nowgong, Nagode.

19. *Jhansi* has been under abandonment for some years. The fort and city belong to Scindia; and there is no reason, either military or political of which I am aware, to render its retention as a British cantonment desirable.

20. *Nowgong*, since the mutiny, has been fixed as the cantonment of Bundelcund for British troops; and suitable barracks are near completion. The climate, though hot, is not unhealthy, and the position for a great garrison seems well chosen; and when the road to the rail at Sutna, which pierces through several Native States, shall be finished, it will be thoroughly accessible. The time is probably not far distant when the rail will reach Gwalior from Agra. This done, it must quickly force its way by Jhansi through Bundelcund, and intersect the Jubbulpore line. As things stand, I would recommend that Nowgong shall be the one strong British garrison in the midst of the Native States of Bundelcund, and that Nagode be abandoned.

21. *Nagode*, on the Sutna and Nowgong road, the residence of the petty Chief of that name, is 16 miles from Sutna and 84 from Nowgong. It is now garrisoned by a regiment of Madras Native infantry, with a squadron of Native cavalry from Nowgong for six or eight months in the year.

22. I see no reason for retaining this petty garrison in such a place. I would leave a handful of cavalry from Nowgong and withdraw the Native infantry.

23. Having discussed the cantonments in Central India, I will now add a few words respecting the quality of our garrisons. Chiefs and Natives generally estimate our strength by our guns rather than by our bayonets. It is the precision and prestige of our artillery which strike awe and call forth admiration, whether in Scindia or from Jung Bahadur. It was owing to this superiority in days long past that success in every struggle was almost a certainty. It was the "electric fire" of the same power by which Havelock with his small body achieved victory after victory, dispersing thousands with heavy loss, almost untouched himself. On the other hand, it was the want of artillery which protracted the struggle at Delhi, and made each success ruinously costly to us. British batteries form bonds of cement between us and Native States, and prevent fears of the stability of our power from undermining the faith of our mercenary troops; and these batteries should be conspicuous in all our garrisons.

24. Whenever our next struggle comes, guns will play a prominent part against us. The superiority of our small arms will be ever more conspicuous than heretofore; but the number and weight of guns must always tell in a country in which the people may be hostile. Scindia's army, which we see composed of old Poorbeahs and discharged sepoy, indifferently armed, is to my mind a small matter; but the serviceable guns which he and Holkar could put into the field—probably not less than 300—few of which we see, is far from being a small matter. In Bundelcund there is hardly a big city in which the art of gun-making is unknown. Natives in this respect have not lost their cunning nor their taste. My views are that our garrison, especially in Native States, should be few and so strong as to be beyond question, and that we should leave the rest to the people themselves, with here and there local corps with selected officers living amongst them.

Statement showing the Cantonments in Central India, how garrisoned, and their present and proposed strength.

NAMES OF CANTONMENTS.	PRESENT STRENGTH.					PROPOSED STRENGTH.					REMARKS.
	CAVALRY.		ARTILLERY.	INFANTRY.		CAVALRY.		ARTILLERY.	INFANTRY.		
	European.	Native.	European.	European.	Native.	European.	Native.	European.	European.	Native.	
<b>MHOW DIVISION.</b>											
Mhow	1	...	2 batteries	1	2	1	...	2 batteries	1	2	The minimum at which this should be. Infantry to be withdrawn. Head-quarters, Central India Horse. Part of Mhow garrison. Head-quarters, Bhopal Battalion. Head-quarters, Malwa Bheel Corps.
Neemuch	...	1	1 battery	3 cos.	1	...	1	2 do.	1	1	
Mehidpur	...	Det., Central India Horse.	...	...	½	...	...	...	...	...	
Angur	...	1	...	...	½	...	1	...	...	...	
Indore	...	...	...	1 co.	3 cos.	...	...	2 guns	1 co.	3 cos.	
Sehore	...	...	...	...	1	...	...	...	...	1	
Sirdarpur	...	...	...	...	1	...	...	...	...	1	
<b>GWALIOR DISTRICT.</b>											
Morar Fortress	...	1	4 batteries	1½	2	...	1	4 batteries	1½	2	If held, no reduction of strength would be politic. Will be abandoned.
Jhansi	...	1 squad.	...	Det. (head-quarters).	1	...	Nil	Nil	...	...	
Sipri	...	Detachment	...	...	Det.	...	Post	...	...	...	
Goona	...	1	...	...	...	...	1	...	...	...	Cavalry post sufficient. Head-quarters, 1st Regiment, Central India Horse.
<b>SAUGOR DISTRICT.</b>											
Nowgong	...	1	1 battery	Detachment	1	...	1	2 batteries	1	1	Cavalry post sufficient.
Nagode	...	Detachment	...	...	1	...	Post	...	...	...	
Total	1	5	8	3 & 3 cos.	11	1	5	10 batteries	4½	8	

CENTRAL INDIA AGENCY ;  
CAMP KUCHNARA,  
The 5th January 1872. }

(Sd.) H. D. DALY, Major-General,  
Agent, Governor-General for Central India.



## G.—RAJPUTANA.

Memorandum supplying information called for in Government of India, Military Department, letter No. 205 S.B., dated 7th July 1879.

*(a) Strength of Native population.*

1. The population of the British district of Ajmere-Mhairwarra, exclusive of the troops quartered in it, is 392,836, and of the Native States in Rajputana 9,261,607, making a total of 9,654,443 souls, distributed throughout an area of 130,312 square miles.

*(b) Strength of European and Eurasian population (exclusive of army).*

2. The European and Eurasian population of Ajmere is about 200. The non-combatant population of Nusseerabad is about 270; and 45 or 50 Europeans are employed in various ways in the Native States. On the completion of the Western Rajputana Railway, there will probably be not less than 1,500 persons, of which about 800 will be adult males.

*(c) State of feeling.*

3. I may confidently assert that throughout the British district of Ajmere and the States of Rajputana, whether Rajput, Jat, or Muhammadan, a spirit of loyalty towards the British Government pervades all classes. Our connection with Rajputana has now lasted for more than sixty years; and during the whole of this period, though in the exercise of the varied responsibilities of our position, we have repeatedly been compelled to interfere by force of arms either to prevent the anarchy caused by mal-administration on the one hand, or unprovoked rebellion on the other, or to put an end to the forays of predatory tribes. In no one instance has there been any sign of disaffection towards ourselves, or any disposition to combine in resistance to our authority, on the part of the population of Rajputana. It would be too much to assume that the interference we have so often been forced to exercise has been welcome to those on whose behalf it has been required; but at any rate it has never been actively resented by any class. And this I believe to be due to the moderation we have invariably displayed in our dealings with these States, and to the prompt withdrawal of our forces on the attainment of the objects with which they were despatched. If to a Chief our intervention implies the necessity for reform in his administration, it also signifies protection against undue encroachments on his authority by a coalition of factious feudatories; and though it prevents the latter from asserting their claims by open violence, it affords them a remedy to which, in case of proved necessity, they can confidently have recourse. The confidence which the Chiefs and people of Rajputana have learnt to repose in the justice and magnanimity of the British Government, and the certainty they feel that we shall never place too strict and too literal an interpretation on the compacts which bind them to us, reconcile them to their subordinate position, and to acquiescence without demur in the restrictions we find it necessary from time to time to impose both on the authority of the Chiefs and on the pretensions of the nobles. But had this policy of protecting indifferently the rights of all not been followed, or had we allowed them to believe that their interests were made entirely subservient to our own, we should have failed to win their confidence; and the hearty assistance we received in Rajputana throughout the mutiny, when, at the commencement of the outbreak, there was not a single European soldier in the province to mark the reality of our power, would certainly have been denied us. So long, then, as we adhere to the principles that have hitherto guided us in our dealings with the Rajputana State, we may, I feel sure, count on the continued loyalty of their inhabitants; but if, abandoning these principles, we entered under any pretext on a policy of annexation, we should find all classes in the State sinking their differences in the common danger, ready to offer to the utmost of their power at least a tacit resistance. I am not prepared to say that, even under these circumstances, the feeling of discontent would take the form of active and united opposition, such as would necessitate any military intervention; but the defection which would inevitably result from such a change of policy would be highly embarrassing to us, in the event of any general rising in our own provinces or of serious complications on our external frontiers.

4. The above remarks apply to the state of feeling which I conceive to be common to the population of Rajputana generally, and to indicate an attachment to the British Government, which ill-judged action alone on our part could shake or convert into hostility. The motives which keep the different classes faithful to us may possibly vary; but it may be said of the people generally that they are wedded to old traditions, and free from the restlessness and love of change so characteristic of some other Indian races. Among the agricultural and commercial classes, whose pacific habits would make them shrink from joining any seditious movement, however indirectly, this conservative feeling probably does not rise above aversion from any change which might disturb the tranquillity they now enjoy; but it is not perhaps quixotic to believe that among the higher classes of Rajputs, properly so-called, it springs from an hereditary fidelity to the established order of things, and that we, as successors of the Mogul emperors, may confidently expect from the Rajputs of the present day the same cheerful and loyal submission to our rule that their ancestors, when once won over, so uniformly rendered to that of Akbar and his descendants. The question of the personal loyalty of the Chiefs of Rajputana has been often discussed, and it has been argued that their proneness to listen to the many idle and often mischievous rumours that so frequently find currency in the bazaars of their capitals indicates an uneasiness and a doubt as to the permanence of our rule, incompatible with steadfast loyalty to the British Government. But it may fairly be objected that this is the natural consequence of a life of comparative seclusion, in which anything novel is of interest, and is listened to with the curiosity which an imperfect acquaintance of what is really passing in the outside world naturally excites; and I believe that this imputation of disloyal credulity is wholly undeserved in the case of the Chiefs of Rajputana. It must also be remembered that, though government in Rajputana is personal, the individual predilections or dislikes of a Chief carry little weight, beyond his immediate circle of ministers or courtiers. Thus, though it might be quite possible for a political officer, by want of sympathy or cordiality, to make himself personally objectionable to a Chief, and so hinder rather than facilitate the latter's acquiescence in the orders of Government; or though, as another instance,

the policy on which Government had determined in any particular measure might be distasteful to a Chief personally, it by no means follows that this dissatisfaction would be reflected in the demeanour of the people generally, or be in any way an indication of the real feelings of the mass of his subjects.

5. In estimating the state of feeling in Rajputana, it must not be forgotten that there is in every State and in the British district of Ajmere a considerable Muhammadan population; and that in Tonk the governing class belongs exclusively to that faith. Dwelling, as they have dwelt for years past, in the midst of an alien race, the Muhammadans both in Tonk and in Rajputana generally have imbibed many of the feelings of those by whom they are surrounded, and, it may safely be asserted, are as well disposed towards us as is the main body of the population. In Ajmere, where there has always been a large colony of Muhammadans connected with the famous shrines of Khwaja Mayyind-din Chisti and Miran Huscin, the utmost loyalty was displayed by both Sunnis and Shias during the mutiny of 1857; and the defence of the approaches to the hill fort of Taraghar and the occupation of the fort itself were entrusted to the custodians of these shrines, with the result that peace and order were effectively maintained by them.

(d) *Elements of danger.*

6. The first consideration naturally occurring to those not brought personally into contact with these Rajput States is, that there must be a danger of an effective combination of the Chiefs against us. The possibility of this has been repeatedly urged as a reason for maintaining a larger body of troops than would be necessary if this element of danger could be eliminated from our calculations. So far as Rajputana is concerned, I believe that it may be left out of consideration. I have alluded to the only circumstances which, in my opinion, could unite the conflicting interests of the different parties so invariably found in every State in Rajputana; but I can conceive no possible train of circumstances by which a treasonable movement, if set on foot in one State, would affect simultaneously any of the others. The jealousies which have for centuries existed, and still exist, between the various Durbars are so inveterate, that not even the proposed annexation of one State would rouse the others to arms in its defence; and so strong is my conviction that these causes would infallibly prevent any combined action against us, that in considering the military requirements of the province, such an eventuality need not be taken seriously into account. Granting however, for the sake of argument, that such a combination is possible, it follows that, for it to be successful, it must be supported by force of arms; and in that case it might fairly be asked whether the armies maintained by the States of Rajputana are not, or could not, become a source of danger to us. To this I would reply that there is no State in the whole province that has a body of men who would dare to take the field against a very much weaker detachment of disciplined troops.

• *Vide appendix A.*

It is true that on paper the numbers\* composing the armies of these States may appear formidable to those unfamiliar with their actual condition and component parts; and hence arises the widespread belief that we are compelled to maintain excessive armaments to overawe them. The idea is purely fallacious. Each State keeps up a small number of regular troops, so-called, in no case exceeding 3,000 men, whose organization, equipment, and discipline is so completely inefficient as to make them unworthy of being taken into account as an element of military strength against ourselves. These bodies of men are generally stationed at the capital, and are ordinarily employed in court ceremonials; but, being composed of foreigners, unconnected with the country, the Chief can, as a rule, depend upon them in the event of disputes with his feudatories. Inefficient as they are, however, when judged by our standard, a *prestige* for which it is difficult to account attaches to them as foreigners; and they are held in much respect by the indigenous fighting material of the country. The result of this fancied superiority has not unfrequently been a source of danger to their employers; and it has more than once happened that, owing to their pay having been allowed to fall into arrears, or some similar cause, they have broken out into revolt, which our troops have been called in to quell. The possibility of similar measures being again required must not be lost sight of in estimating the strength of the British force to be maintained in Rajputana. The main body of the army of a Rajput State is composed of irregular levies supplied by the different feudal nobles, and, if possible, more hopelessly inefficient than the so-called regulars. Like the latter, they, too, cannot always be counted upon as a support to the Chief; for their first duty being in their opinion to the Thakur in whose service they are, they would assuredly side with him in any dispute in which the Durbar decided on coercive measures against him or his kinsmen and connections. The terms in which I have spoken of the efficiency of these armies generally require some qualification if applied to Bhurtpore. There are in all 1,400 regular cavalry and 3,000 regular infantry in Bhurtpore of the tribe of which the Chief is the head; and their fidelity to him is consequently more assured than is the case with the bodies of men employed by the other Chiefs: their organization and discipline is also slightly better. The necessity for this force, comparatively small though it is, is not apparent; for the Chief has no troublesome Thakurs to deal with, and his territory lies in close proximity to British districts, so that it might well be reduced considerably below its present strength. In regard to what may perhaps be considered as the undue strength of these armies, it must be remembered that they undertake the whole work of police, escorts, &c., over extensive tracts of country; that they have to deal with a population as well armed as themselves; and that we expect them to keep in order the criminal tribes from whose depredations Rajputana is as yet by no means free. Taking all these facts into consideration, I do not consider that, as long as our political officers exercise a due degree of vigilance, the armies of Rajputana are, or could be, in any way formidable with the exception above mentioned, more particularly if the Arms Act is strictly enforced; or that they are at all in excess of what is absolutely necessary for the prevention of internal disturbance and for preserving the general peace of the country. The conclusion to be drawn from these observations is that, as far as regards imperial interests, no real elements of danger exist in Rajputana, but that in a country where the whole population is armed, and the criminal tribes are still unreclaimed, we must always be prepared for sudden outbreaks on a small scale. Against such insignificant occurrences there is no necessity to make special provision.

(e) *Strength of police.*

7. Irrespective of the troops of the Native States, the police of the province consists of two bodies only, *viz.*, the Rajputana State Railway Police and the Ajmere-Mhairwarra District Police, the strength of the former being 230, and of the latter 580 men.

*(f) Distribution of police.*

8. The Rajputana State Railway Police is distributed as follows: 13 men are retained for duty at head-quarters, 10 are detached for duty at Agra, 6 are train guard constables, and 20 form a reserve. The remainder of the force is distributed in nearly equal numbers at the different stations along the railway line, Agra being the only station necessarily requiring a somewhat larger number than any other. With the exception of a small reserve at head-quarters, and a few constables detached for duty at courts and offices, the Ajmere District Police is located at different stations and outposts in the district, the strength of the guards at each varying in accordance with the importance of the station. The following are the principal police stations in the district:—

Ajmere.	Todgarh.
Nusseerabad.	Umugliawas.
Goela-Ramsur.	Jawaja.
Kekri.	Ghegul.
Bcawar.	Gungwana.
Bhinai.	Jesakhera.

*(g) Efficiency of police.*

9. The reorganization of the Rajputana State Railway Police is at present under consideration; but the men of both it and of the Ajmere District Police have performed their duties efficiently.

*(h) European and Eurasian population considered as—**(1) strength in combatant power and for the maintenance of order.*

10. If the estimate under head (b) be correct, there may be between 800 and 1,000 adult males who might, under certain circumstances, be considered effective as a combatant force in case of necessity. It is not probable that the number of adult males employed on the railway at the commencement of working the entire line will increase. The tendency appears to be rather to substitute trained Native labor whenever practicable; and there is reason to suppose that efficient Native labor will be more easily obtained on this line than in Southern India. Assuming, then, that such a possible combatant power existed along a line of, say, 600 miles, its utility would entirely depend on the arrangements which might be made for its effective disposition.

*(2) weakness in necessity for provision of safety of non-combatants, women and children.*

11. Supposing that all the adult males are possible combatants, the actual non-combatants might be upwards of 1,000 at the outset; and the number may be expected to increase. It has been proposed to provide for 600 in a fortified post at Nusseerabad; and it might be possible to make similar provision at Ahmedabad. Between Ahmedabad and Ajmere, about 300 miles, there is the sanitarium of Abu, which would always be available as a place of refuge, and which no doubt will be much resorted to on completion of the railway. This is in no sense a fortified post; but the buildings might easily be made secure against any force that is likely to be brought against it.

*(3) of possible greater utility than at present if organized for the maintenance of order in case of disturbance.*

12. Whether this population would be a source of weakness or strength in case of disturbance depends, first, upon the means provided for the security of the useless portion, and secondly, on the effective organization of the adult males for purposes of defence. The means for providing for the first has already been indicated: it remains to show how the second may be dealt with.

*(i) Compulsory enrolment.*

13. In favor of compulsory enrolment, *i.e.*, of enlisting our railway employes in the regular army, it may no doubt be said that it is easier to train a soldier than either a driver or mechanic. If it were considered desirable to keep up a reserve of European drivers, &c., such as would be sufficient for the railway management of an army in time of war, it would at first sight seem more desirable, and it would certainly be more effective for the particular purpose, to enrol the force of railway employes as soldiers than to train any portion of our army to perform the duties of railway staff. The efficiency thus gained for war purposes would, however, be attended with some disadvantages, in time of peace at all events, unless some system could be devised of ensuring a steady and industrious class; and it seems impossible to resist the conclusion that the ordinary railway working body should be civil. Moreover, as the normal condition is peace, the insurance against a possible emergency should not be too heavy.

*(j) Development of volunteer system.*

14. With regard to the development of the volunteer system, it seems extremely doubtful if, as at present constituted, any great advantage is likely to result from its extension. As yet the volunteer system can hardly be said to have taken root in India; and in this province it is only in its infancy. The success depends in a great measure on the support it receives from the Government, and, as it must be mainly composed of railway employes, the encouragement of the officers who may for the time being have the administrative control of the railway. Up to the present time it has probably not received sufficient encouragement from either of the above sources. At all events, it is not as popular as it should be to encourage the hope that its extension will be attended with any very beneficial results. Unless the volunteer system on a railway is sufficiently popular to induce all the sober, industrious class to join, it cannot become a really useful institution. Possibly the remedy may be found in some development of a system between that of compulsory enrolment as soldiers and the present volunteer system. It might be made a condition of service that every employe should become a volunteer, if after a specified term of probation he were considered fit to be one, unfitness resulting in discharge. On approval he might be compelled to serve for a term of years, precisely as many men are obliged to do in civil life, during which time he could neither resign his employ nor obtain his discharge as a volunteer. The details of such a scheme would no doubt require to be carefully thought out. They

cannot be treated provincially, nor be satisfactorily disposed of in a few hastily-written paragraphs. But, in combination with compulsory membership in a provident or insurance fund, it offers many of the advantages possessed by other systems without their practical defects.

15. Before proceeding to give my opinion on the general military requirements of the province under heads (a) and (b) of paragraph 3 of the Government letter, it may be as well that I should describe briefly the positions at present occupied by our troops in Rajputana, the strength in which they are respectively held, the objects with which they have been selected, and the duties which the troops, and especially the local corps, are, and have been, called upon to perform.

There are in Rajputana two cantonments, *viz.*, Nusseerabad and Deolee, in which troops of our regular army are quartered; and five, *viz.*, Deolee, Ajmere, Erinpoorah, Khairwarra, and Kotra, which are occupied by local forces. The following return gives the distribution of these troops:—

<i>Regular Force.</i>				
Nusseerabad	... 2nd Royal Artillery, E Battery.	1st Regiment, Bombay Light Cavalry (squadron).	5 Companies of 17th Regiment 2nd Battalion, British.	2nd Regiment, Native Infantry.
Deolee	...	4th Bengal Cavalry	...	...
<i>Local Corps.</i>				
Deolee	...	...	...	Deolee Irregular Force.
Ajmere	...	...	...	Mhairwarra Battalion.
Erinpoorah	...	...	...	Erinpoorah Irregular Force.
Khairwarra	...	...	...	5 Companies Meywar Bheel Corps.
Kotra	...	...	...	3 Companies Meywar Bheel Corps.

The cantonments of Neemuch and Deesa, though not, properly speaking, in Rajputana, are situated so close to its frontiers on the south-east and south-west respectively, and the troops stationed there have so frequently been made use of in operations undertaken in Rajputana, that they have always been considered in estimating our military resources in this province. The distribution of their garrisons is as follows:—

<i>Regular Force.</i>				
Neemuch	... 2nd Brigade, Royal Artillery, G Battery.	1st Regiment, Bombay Light Cavalry (2 squadrons).	3 Companies, 17th Regiment 2nd Battalion, British.	10th Regiment (Light), Native Infantry.
Deesa	... 1st Brigade, Royal Artillery, U Battery.	3rd Regiment, Bombay Light Cavalry (2 squadrons).	3 Companies, 15th Regiment 2nd Battalion.	26th Regiment, Native Infantry.

#### *Nusseerabad.*

16. Nusseerabad is the military cantonment of Ajmere, which is the capital of the British district of that name, and, from its central position, of Rajputana generally. It is fifteen miles from Ajmere, with which it is now connected by rail. The existence of Nusseerabad as a military cantonment dates from the year 1818, when its formation was necessary to protect the recently ceded district of Ajmere; and it then became the head-quarters of the reserve of the Rajputana Field Force under Sir David Ochterlony. I have been unable in the short time at my disposal to trace the various alterations in the strength of the garrison between 1818 and the mutiny of 1857; but in the latter year it consisted of one Native field battery, two regiments of Bengal Native infantry, and one regiment light cavalry. Till 1857 Nusseerabad was garrisoned chiefly by Bengal troops, but since that year Bombay regiments have been substituted, and it now forms a brigade of the Mhow division of the Bombay army. A glance at the map will show what a very important position Nusseerabad occupies from a military point of view. It is already connected by rail with Agra and Delhi, and will shortly be so with Almedabad, while the line to Neemuch will in a few years place it in direct communication with the large military station of Mhow. It is thus capable of easy reinforcement from several quarters, and, from its central position, affords the best possible position for undertaking operations in Rajputana.

#### *Deolee.*

17. The cantonment of Deolee is situated 56 miles south-east of Nusseerabad, at the junction of British Meywar, Jeypur, Tonk, and Bundi territory. The river Bunass runs between it and Nusseerabad, but can easily be crossed in the rainy season by a ferry which has recently been provided by

Government. The site was selected by Sir Henry Lawrence in 1855 as commanding the passes leading to Kotah and Bundi, and also the Kherar, a hilly tract formed of portions of Meywar, Jeypur, and Bundi extending some 13 miles eastward from Jehazpore, and the home of the Purriar branch of the Mina tribe, whose depredations in the surrounding country were long notorious. It was to overawe this tribe that Deolee was occupied in the first instance by the Kotah Contingent, the origin of which may be briefly described as follows. By the fifth article of the Treaty of 1838, Kotah was bound to maintain a contingent force, to be paid from its revenues; and by the sixth article of the same its liabilities on this account were restricted to three (and subsequently to two) lakhs of rupees per annum. Accordingly, in 1840, the Kotah Contingent was raised as a part of the general policy of calling upon those States with whom treaties in which there was a specific provision promising subordinate co-operation had been concluded to fulfil their part of the engagement. The corps was at first located in the vicinity of Kotah itself, but after various changes of station was finally quartered at Deolee, with the object above stated.

18. The force consisted of all three arms, *viz.*, 240 cavalry, 2 guns, and 640 infantry; and was kept up until 1857, when, on the outbreak of the mutiny, it was ordered to Agra, and, after being employed for some time in the Muttra district, mutinied in July of that year. To supply its loss, some 300 Minas, Jats, Gujars, and Rajputs were enlisted during the latter part of the same year on the responsibility of the Agent to the Governor-General; and this was the nucleus of the present Deolee Irregular Force, which, as originally constituted, consisted of 800 infantry and 320 cavalry, including Native officers and men of all ranks. In 1861 the strength of the infantry was assimilated to that of a regiment on the Bengal establishment; and in the following year the cavalry was reduced to two troops, which also were fixed on the same scale as that authorized for cavalry regiments in the Bengal army. Both infantry and cavalry have since remained at the above-named strength; and in 1868 the rates of pay sanctioned for the Native army were applied to them. The total cost of the corps amounts to Rs. 2,12,514-13. The infantry is principally recruited from the Purriar Minas, who thus become the means of their own reclamation. Minas, however, are not fitted to serve as cavalry; and this portion of the force, which was at first mainly composed of Sikhs of the old Khalsa army sent from the Punjab by Sir John Lawrence in 1857, has since been mainly recruited from the same class. On the reduction of the cavalry in 1862, strong representations were made by the then Agent to the Governor-General, General G. St. P. Lawrence, that the peace of the country was endangered by the weakness of that arm. A cavalry regiment on the Bengal establishment was therefore ordered to Deolee, and has since formed a part of the garrison of the cantonment. For some years one squadron was detached to Jhansi, though of late this has been recalled to head-quarters. The partial occupation of Deolee by regular troops is thus of comparatively recent date.

19. The Deolee Irregular Force was employed at the siege of Kotah in 1858; but though it has not since been called upon to undertake any military operations, it has played an important part in preserving the general tranquillity of the country, by offering an honest career in its ranks to the restless spirits of the Kherar.

#### *Ajmere.*

20. Ajmere is the head-quarters of the Mhairwarra Battalion, which has been in existence since 1822. When we obtained possession of the Ajmere district in 1818, the Mers, or inhabitants of the hilly tract which extends for 100 miles in length and 15 miles in breadth between Ajmere proper, Meywar, and Marwar, were notorious for their plundering habits. In reality they were completely independent of Udaipur and Jodhpur, though the claims advanced by both Durbars to the allegiance of the Mers were admitted by us when it became necessary to punish them for their depredations, and consequently their towns as reduced were made over to these States. The arrangement did not work well; and in 1821 it was found necessary to require that the Meywar and Marwar portions of Mhairwarra should be made over to British management for a term of years. With a view to affording due protection to life and property in this tract, it was determined to raise a local corps from the classes whose depredations had necessitated its formation; and as the restoration of order could not fail to be of equal benefit to the two adjoining States, they were required to make contributions towards the expense of the corps. These were fixed at Rs. 15,000 each.

21. The nucleus of the regiment thus raised was composed of drafts from the Rampura Local Battalion, which in its turn had been formed from the remnants of the army of the notorious Amir Khan. The total strength of the new battalion was fixed at eight companies, each company containing 1 subadar, 1 jemadar, 5 havildars, 5 naiks, and 70 privates; and its cost, including the civil allowance of the commandant, was Rs. 55,560 per annum. Vacancies for 340 Mer sepoy and a certain proportion of the commissioned and non-commissioned posts for those Mers who should sooner qualify themselves for promotion were reserved. The corps was cantoned near the old town of Beawar, about 30 miles south-west of Ajmere, but was subsequently moved to Nyanuggur, 4 miles south of Beawar. It was designated the Mhairwarra Local Battalion.

22. Owing to the severity of outpost duty, the battalion was augmented in 1825 by the addition of ten men per company, thus raising the strength to 670 of all ranks. It saw no active service until 1839, when it was sent with the Jodhpur Legion against some outlawed Thakurs of Marwar; and dislodged them from their stronghold of Kote at the entrance of the Dewair pass. It also formed part of the force which was sent against Jodhpur in the same year; but, owing to Maharaja Man Singh's submission, was not actively engaged. On the mutiny of the troops at Nusseerabad the magazine at Ajmere was occupied by a company from Beawar, and the battalion was subsequently employed in the operations against Ahwa. For its services all men serving with the battalion on the 1st July 1857 were rewarded with the grant of the pay and privileges as regards pensions of soldiers of the regular army.

23. In December 1857 the Government authorized the formation of a second Mer regiment to be stationed at Ajmere. The Mhairwarra Local Battalion was therefore reduced by two companies, which were drafted into the new regiment. The strength of both corps then amounted to 1,500 men; but for financial reasons it was found necessary in 1861 to effect reductions. The new corps was accordingly amalgamated with the old Mer battalion, the strength of which was raised to 1,000 men of all ranks.

divided into ten companies, and designated the Mhairwarra Police Battalion; and was placed under the North-Western Provinces Government, to assist the police on protective duties. By this measure the battalion did not enjoy the advantages in respect of pay and pension conferred afterwards on the other local corps of Rajputana; and the men were consequently discontented, while the regiment was practically useless for purposes of police. For these and for other reasons it was decided in 1870 to organize it into a purely military corps. The numbers were reduced to a total strength of 712 of all ranks, divided into eight companies. The pay was raised to that of the regular army; and the men were granted the same privileges as regards pension and allowances as the other local corps. The headquarters were at the same time transferred from Beawar to Ajmere. The present corps is composed of Mers and Merats, or Muhammadan Mers, and in composition is even more local than it was thirty years ago. Its duties, as defined by Government, are to furnish jail and treasury guards, to occupy the military posts in the district, supply escorts, supply such infantry guards as can be spared for the salt works of the Sambhar lake, and to perform all duties for which armed men are considered necessary, under the distinct understanding that the corps will be liable, when called on, to do general service throughout Rajputana, like other local corps. The Mhairwarra Battalion has just returned from active service in Afghanistan.

*Khairwarra and Kotra.*

24. The cantonments of Khairwarra and Kotra are situated respectively 40 miles south-west and south-east of Udaipur in the hilly tracts of Meywar. Khairwarra is garrisoned by five companies of the Meywar Bheel Corps, which was raised in 1840, consequent on the inability of the Udaipur State to keep its turbulent Bheel population in subjection. At Kotra, which was established as a separate post in 1844, are quartered three companies of the corps under the 2nd-in-command. The hilly tracts of Meywar are divided into three portions: (1) Chuppun to the south-east of Udaipur; (2) Jowass to the south-west of Chuppun; and (3) the Grassia chiefships, whose estates lie from the north of Jowass as far as Sirohi. Roughly speaking, they may be said to extend from the neighbourhood of Neemuch to the Anavali, with an average breadth of 50 miles. The disordered state of these tracts existed previous to British interposition in Meywar affairs; and the depredations of the inhabitants did not cease with its introduction. A British force was employed against them in 1823; but though the operations were temporarily successful, no permanent good resulted; and in the course of time Bhil raids extended to Mahi Kanta and our own and the Gackwar's territories in Guzerat. Our endeavours to restore order from Khairwarra with the assistance of Durbar troops were for some years unsuccessful; and eventually it was determined to organize a Bhil Corps composed as much as possible of the people of the country. After considerable delay, a force of 442 men of all ranks, at a cost of Rs. 40,000 per annum, was temporarily raised in 1840; and these were in the following year augmented to a strength of ten companies of 90 men each, with the usual proportion of commissioned and non-commissioned officers. The cost was fixed at Rs. 1,20,000, of which the Meywar Durbar contributes Rs. 50,000. In 1861 the scale fixed for an infantry regiment of the Bengal establishment was made applicable to the Meywar Bhil Corps. It enjoys the benefits of pension, and has lately, *viz.*, in 1877, been granted the same rate of pay as that drawn by regiments of the regular Native army. The present annual cost amounts to Rs. 1,33,504, exclusive of compensation for dearness of provisions, which may in years of scarcity amount to Rs. 7,000.

25. The Meywar Bhil Corps has been chiefly employed in coercing refractory Bheels and outlaws. In 1855 half the corps was employed under Sir Henry Lawrence against the Jehazpore Minas; and in 1858 it joined in the pursuit of Tantia Topi through the Banswara jungles. Since then the two principal operations on which it has been engaged are those against Maharaj Sohun Singh of Bagore in 1875, when the head-quarters and wing (231 rank and file) proceeded with the Meywar Durbar troops against his fort; and those against the Bheels of Mandwa-Bakel in 1876, when the detachment at Kotra supported and co-operated with the Durbar troops.

*Erinpura.*

26. Erinpura, the head-quarters of the irregular force of that name, is situated on the main road from Ajmere to Ahmedabad, 150 miles south-east of the former, and was originally occupied by the Jodhpur Legion, raised under the following circumstances. Under article viii of the Treaty with the British Government dated 6th January 1818, the State of Jodhpur was required to furnish a contingent of 1,500 horse for foreign service whenever called on by the British Government to do so. This force, however, was found to be inefficient, and, being composed wholly of Rajputs, was useless to act against the people of the country. Government accordingly accepted an application made by Maharaja Man Singh in 1835 to be released from his obligation to furnish this levy, on condition of an annual payment of Rs. 1,15,000, which was to be devoted to the maintenance of a body of horse and foot under European officers. Accordingly in the following year the Jodhpur Legion, consisting of 4 guns, 216 cavalry, and 640 infantry, principally Hindustanis, under British officers, was raised with a view to prevent depredations and outrage on the unsettled Marwar-Sirohi border, and to protect the trade passing along the trunk road from the western coast and Guzerat *via* Sirohi and Pali to Hindustan and the Punjab. The force was at first stationed at Burgong on the Godwar frontier, and afterwards moved to Erinpura.

27. In 1834 the Jodhpur Legion formed a part of the force moved against Maharaja Man Singh of Jodhpur, and in 1839 was similarly employed, having previously in the same year been engaged in conjunction with the Mhairwarra Battalion under Captain Dixon against the Marwar outlaw Chimun Singh of Kota. In 1857 the whole of the Jodhpur Legion mutinied, with the exception of a few sowars, two companies of Bheels, and a detachment of two Purbiah companies at Nusseerabad, who were disarmed for a season. These formed the nucleus of the present Erinpura Irregular Force. The Purbiahs, who remained staunch, were transferred to other existing local corps; and the new infantry regiment was composed of Rajputs, Mers, Minas, Bheels, Grassias, &c. The new cavalry corps comprised the remnant of the old regiment and 450 Sikh Horse which had been raised for service with the Maharaja of Jodhpur, but were taken on by the British Government. These were ultimately divided, and formed the basis of the present cavalry corps at Erinpura and Deolce. The organization of the

corps was completed on the scale already alluded to in the case of the Deolee Irregular Force ; and in 1861 the same reductions that had been carried out in that corps were effected in the Erinpura Irregular Force.

28. Detachments have often been employed in keeping open the main line of traffic between Deesa and Ajmere, and in suppressing outlaws. In July 1868 a large detachment of the force was sent against the famous outlaw Nathu Singh of Bhuttana ; and in 1872 Colonel Carnell proceeded with a strong force against the recusant Thakur of Rewara, who was arrested without opposition.

*General military requirements for (a) garrison purposes and the maintenance of order.*

29. I now come to a consideration of the points mentioned in paragraph 8 of the Government letter. In regard to the requirements for garrison purposes, by which I understand the ordinary duties to be undertaken in time of peace, I may say at once that the force at present stationed in Rajputana is sufficient under ordinary circumstances for the protection of the positions it occupies both in British and foreign territory, and for the performance of the duties which fall to its share. In the case of the regular troops, these are confined to what may be termed garrison duty proper, as they are not employed beyond their own cantonments. The local corps, on the other hand, supply all the detachments for outpost or escort duty, and are employed in protecting the various salt sources and in guarding treasure. The accompanying return\* shows how scattered these detachments are. There can be no question that the local corps could not be so weakened but for the moral support which a regular force at Nusseerabad affords. The one is thus the complement of the other. The existence of the local corps, and the gradual leaven which their recruitment from among the wild predatory tribes has worked towards the general peace of the country, enables us to relieve our regular forces of the duties on which they would otherwise be scattered over its face, and to concentrate them at the most favorable points ; while, on the other hand, by the presence of a small European force, able through the improvement of communications to move rapidly on any point, we can safely dispense with such comparatively large bodies of troops as were kept up before the mutiny. In an extensive province like Rajputana, where, from the nature of the country, so favorable for the operations of bodies, great and small, of light and predatory horse, and from the union and fellow-feeling which subsists amongst whole classes of its inhabitants opposed to their suzerain's power, disturbances of more or less magnitude must always be anticipated. The necessity for a small force centrally situated, as that at Nusseerabad is, to assist in their suppression is obvious. It remains to consider whether its present strength and that of the local forces with which it would co-operate is sufficient for the maintenance of order as distinguished from military operations on an extended scale within the provinces. The history of Rajputana since our interposition in 1818 shows that at first our regular troops were constantly engaged in restoring order, but that, with the formation of the various local corps, the occasions for their employment became gradually rarer ; or perhaps it would be more correct to say that the cases with which the local corps were able to deal without assistance became more frequent. There are but few instances on record, and these belong rather to the division of the subject under head (b), in which a force exceeding that now stationed at Nusseerabad and in Rajputana was employed in the suppression of purely local disturbances. The following are examples in addition to those already mentioned of the employment of our troops in suppression of minor disturbances.

\* *Vide appendix B.*

30. In March 1819 three battalions of infantry, some cavalry, and light guns carried by elephants were sent to check the insubordinate Mers ; and in 1820 a still larger force was despatched against them. In 1823 a force, composed of the 2nd Regiment Native Infantry, one squadron regular cavalry, four local horse heavy battering trains, and one light field battery, moved against the Minas and Bhils of the hilly tracts. Four years later a small detachment (500) of Bombay infantry was sent into the hilly tracts ; while the Bombay Government quartered troops in the Mahi Kanta to protect the feudatory Chiefs in that region from the depredations of the Bhils. In 1824 a squadron of Native cavalry, six companies of Native infantry, and a proportion of light artillery and pioneers, in addition to detachments of the Gaekwar, Pahlunpur, and Sirohi troops, were despatched from Deesa for the punishment of the turbulent Thakurs and Minas of Sirohi, and were employed till May of that year. Coming to later times, in 1855 Sir Henry Lawrence visited the seats of some of the disaffected Thakurs of Meywar, taking with him three battering guns, a field battery, about 1,300 infantry, and 300 cavalry. In 1862 a disputed succession in Salumbar of Meywar rendered it likely that a military force would have to be employed, and a concentric movement from Neemuch, Deesa, and Nusseerabad was proposed ; but the necessity for carrying it out did not arise.

31. It will be seen that the forces which have been employed on these occasions have not been in excess of our present military resources in Rajputana ; and the conclusion to be drawn is that the requirements of the province in regard to the maintenance of internal order are satisfied by keeping the troops stationed in it at their present strength. But the present scale is the lowest at which this could be fixed, consistently with the performance of even ordinary peace duties. It must be remembered that we cannot measure exactly the amount of tranquillity secured by the presence of a given number of troops ; and no doubt a great deal of the peace of the country is due to our *prestige*, and to the knowledge that we can, whenever necessary, amply support that *prestige*. But it would not be politic to risk its temporary loss by keeping a force too weak to maintain it by prompt action ; and hence I would strongly urge the retention of the troops at least at their present strength.

32. There are, however, a few points which deserve attention, *viz.*, the want of a siege-train at Nusseerabad, a proposal lately made to me to withdraw the Bengal Irregular Cavalry regiment at Deolee, the future strength of the garrisons at Neemuch and Deesa, and the number of officers attached to local corps. In regard to the first, it may be remarked that Rajputana is studded with forts, many of them of considerable strength and impervious to the fire of light field-guns. It will not be disputed that, in the event of our troops being compelled to take the field against the owner of any such fort, they should be able to enforce compliance with the terms dictated. This would not always be possible without an adequate siege-train, as is shown by our failure before Ahwa in the mutiny ; and it is only a few years ago that application had to be made to Agra for mortars and heavy guns when the possibility of our having to attack the small fort of Futtebhur in the Kishenghur State was

contemplated. With this view I would propose that the material of a siege-train should be located at Nusseerabad, but manned only when occasion for its service arises. The delay in its equipment and despatch even by rail is necessarily great; whereas, if it was on the spot, men to work the guns could be supplied in the course of a day or so. The possession of battering guns of a calibre sufficient to demolish a moderately strong fort would add considerably to our *prestige*, and probably be of itself sufficient to put an end to the resistance which for a time at least might now be offered with comparative impunity. As regards the second point, although the men of the Bengal Irregular Cavalry at Deolee take no part in the ordinary duties of the local corps, they are available on emergencies for which in their absence it would be difficult with the existing force of irregular cavalry there and at Erinpura to provide. It has already been stated that an irregular regiment on the Bengal establishment was supplied on the reduction of the Deolee and Erinpura Irregular Cavalry, but considerations of discipline and general efficiency prevented its division between Deolee and Erinpura. So far the Erinpura Cavalry has been sufficient to preserve the peace of the country; but should the garrison of Deesa be diminished on the completion of railway communication with Ahmedabad, a somewhat larger force of this arm on the western side of the Aravalis will be necessary, while the withdrawal of a regiment from Deolee will leave the force there weaker in cavalry than it has ever been. I do not advocate a restoration of these forces to their former strength in cavalry; but the number of sowars in each should, I consider, be increased to 200. I have said that the garrisons of Neemuch and Deesa have always been looked upon as supports to our troops in Rajputana; and so they must always be considered. But the improvement in communications now proceeding so rapidly throughout the province raises the question whether the retention of the European detachment at the former station and of the European regiment at the latter will be necessary on the completion of the connection between Nusseerabad and Ahmedabad and Neemuch. In replying at the close of last year to a reference received from the Government of India, I expressed an opinion that the detachment at Neemuch might rejoin its head-quarters at Nusseerabad on the opening of the railway connecting the two stations; and I consider that, so far as this province is concerned, the European regiment at Deesa might with safety be moved elsewhere, if such a step be considered desirable on other than political grounds, so soon as Nusseerabad and Ahmedabad are similarly connected. The sanitarium of Abu might then be garrisoned from Nusseerabad or Ahmedabad, instead of from Deesa. The officers attached to the local corps are unquestionably too few. Their numbers do not admit of their being employed away from head-quarters; and the result is, that the discipline of detachments, which, as before stated, are very numerous, inevitably suffers. Beside this, it is very desirable that there should be a succession of young officers becoming acquainted with the country and with the classes from amongst whom these regiments are enlisted, and ready to take the place of the older officers as these retire. With this view, I would propose that one squadron officer and one wing officer should be added to the Deolee and Erinpura Irregular Forces, one second-in-command and one wing officer to the Mhairwarra Battalion, and one wing officer to the Meywar Bhil Corps.

*General military requirements for (b) internal and external military purposes irrespective of (a).*

33. In dealing with the question of the force required for the maintenance of internal order, I have confined myself to the supposition that its strength should be sufficient to deal promptly with minor disturbances. Occasions have not been wanting, however, in which operations of an extended nature have been undertaken such as come more properly under this head. The following instances will illustrate my meaning and give an idea of the force thus employed:

34. The conduct of Maharaja Man Singh of Jodhpur in giving asylum to Appa Sahib, his disregard of all demands of the British Government, and numerous other causes, necessitated the assemblage of a field force at Ajmere in 1834; but on the Maharaja's agreeing to the bulk of the British demands within the time allowed him, it was not found necessary to remove these troops. Owing to the repeated aggressions of the Shekhawati free-booters upon our own territories, as well as on those of the neighbouring Native States, and the failure of all endeavours to obtain redress, it was found necessary in 1834 to despatch a considerable portion of the field force that had previously assembled for service at Jodhpur to reduce the country to order. The force consisted of about 3,000 regular troops, including two regiments of cavalry, strengthened by a corps of irregular horse and a large siege train for the purpose of dismantling the numerous forts and strongholds which afforded an easy retreat to the plunderers. On the completion of the object of the expedition, the troops were withdrawn; but a force consisting of two 18-pounder guns, two 18-inch mortars, Blair's Horse, and the 61st Regiment Native Infantry was retained in Shekhawati until the organization in the following year of the Shekhawati Brigade. In 1839 the widespread disorganization of the affairs of the Marwar State again necessitated the assemblage of a field force at Ajmere. It consisted of a troop of horse artillery, a light field battery, two companies of foot artillery, six squadrons of cavalry, six regiments of Native infantry, the Jodhpur Legion, the Shekhawati Brigade, the Mhairwarra Battalion, and the siege train of 24 battering guns and mortars. Of this, a regiment of cavalry, two regiments of infantry, a light field battery, the Shekhawati Brigade, the Jodhpur Legion, and the Mhairwarra Battalion, the whole force consisting of 1,000 cavalry, 3,000 infantry, and 12 field-guns, were concentrated at Bisulpur, within 12 miles of Jodhpur; while the main body of the army and the battery train was advancing from Ajmere in support. On the advance of the troops to the capital, no opposition was offered; and the fort was occupied by a company of the sappers and miners and two regiments of Native infantry.

35. To assemble these forces, it was necessary to summon troops and guns from Agra and other cantonments not connected with Rajputana; and under similar circumstances this same necessity would of course again arise; for no Government could be expected to maintain within any one province a sufficiently large army to meet every possible contingency; and the army of India must be taken as a whole affording support in whatever direction it may be most required. With the completion of the various lines of railway now under construction the collection of troops at Nusseerabad for any special duty in Rajputana will become so easy, that in a few days a force sufficient to meet any emergency could be assembled. I consider, therefore, that no special provision other than that already alluded to, *viz.*, the location of a siege train at Nusseerabad, need be made for the internal military requirements of the province as distinguished from those mentioned under head (a).



36. It only remains now to consider the assistance that might be furnished by the troops stationed in the province towards external military requirements; for such I understand to be the meaning of this portion of head (b). On this point I have only to remark that, in the event of the services of the regular troops being required elsewhere, a very small garrison at Nusseerabad would temporarily suffice for the maintenance of order in the British district of Ajmere; and we might also go so far under such circumstances, if the present loyal feeling in the Native States of Rajputana remains unchanged, as to depend with confidence on their willingness and ability to preserve order for the time being within their respective territories. This would set at liberty the larger portion of the infantry of the local corps; and as these are each enlisted from an entirely separate recruiting-ground as yet untrodden by any other corps in India, they could be augmented to almost any extent, their cantonments forming convenient depôts for the entertainment and instruction of recruits. In the event of it being necessary to increase the cavalry forces of the empire, Shekhawati and portions of Marwar would, under picked British officers, supply a body of splendid irregular cavalry. The service performed between the years 1835 and 1843 by the Shekhawati Brigade under Colonel Foster, in reducing to order the wild tract on the triple border of Marwar, Bikanir, and Jeypur, is well known. I can speak from personal experience of the soldier-like qualities of men of these tracts, as in 1858 a large number of them were enlisted in what is now the Central India Horse, and made excellent light cavalry. It might also be remarked that Rajputana affords an almost inexhaustible source of supply in camels and bullocks for transport service, provided we are ready to purchase, and do not expect to be able to obtain them on hire, as is possible in other parts of India.

ABU;  
The 17th August 1879. }

(Sd.) E. R. C. BRADFORD, Major,  
Agent, Governor-General, Rajputana.

## APPENDIX A.

Statement showing the military forces of the Native States in Rajputana.

In relation with	STATE.	MILITARY FORCES.									Total of all arms.
		ARTILLERY.			CAVALRY.			INFANTRY.			
		Total guns.	Total serviceable.	Gunners.	Regulars.	Feudal and Jaghirdar Horse and other Irregulars.	Total.	Regulars.	Fort garrisons, Nagas, Minas, Tahsil sepoys, Nujibs, &c.	Total.	
Government of India, Rajputana Agency.	1. Oodeerpore or Meywar...	263	263	1,338	300	5,340	6,240	1,200	13,900	15,100	22,676
	2. Jeypore ...	202	143	824	790	3,681	4,351	2,471	13,397	16,868	21,133
	3. Jodhpore or Marwar ...	338	274	280	1,219	1,354	3,103	2,065	3,228	5,293	8,676
	4. Kotah ...	140	93	421	245	685	930	900	5,440	6,340	7,691
	5. Bikanir ...	74	74	146	...	951	951	200	1,403	1,603	2,099
	6. Bundi ...	94	88	100	200	460	650	100	1,250	1,350	2,100
	7. Kerowlle ...	40	About 9	35	60	840	900	...	3,150	3,150	4,085
	8. Bhurtpore ...	38	About 13	250	1,460	...	1,460	3,000	6,500	8,500	10,210
	9. Tonk ...	53	53	117	450	60	510	1,200	1,050	2,250	2,877
	10. Kishonghur ...	48	39	100	200	360	550	...	...	3,500	4,150
	11. Ulwar ...	312	273	505	...	2,165	2,165	1,271	2,740	4,011	6,081
	12. Dhoolpore ...	36	14	69	59	568	625	632	1,587	2,219	2,933
	13. Jeypulmere ...	12	12	20	...	500	500	200	200	400	920
	14. Jhallawar ...	95	90	200	300	134	434	1,100	3,040	4,140	4,774
	15. Partabgarh ...	12	12	40	...	275	275	...	950	950	1,265
	16. Banswara ...	8	3	20	...	60	60	...	500	500	690
	17. Sirahi ...	2	...	1	...	375	375	...	850	850	728
	18. Dungepore ...	4	4	...	...	400	400	...	1,000	1,000	1,400
	19. Shahpoora ...	23	12	20	...	212	212	35	320	355	587
	20. Lawa ...	...	...	...	...	...	...	...	...	...	...
	TOTAL ...	1,983	1,496	4,505	5,313	19,478	24,791	14,374	59,905	76,860	106,185

## APPENDIX B.

Distribution Return of Local Corps in Rajputana.

	Duties performed by Infantry.		Duties performed by Cavalry.		Remarks.
Deolce Irregular Force ...	Comd. at Jeypur ...	...	Comd. at Jeypur ...	...	One of the corps furnishes the escort for the Agent to the Governor-General when on tour.
	" at Agra ...	...	" at Agra ...	...	
	" at Ulwar ...	...	" at Harsoth and Tonk ...	...	
	" at Jhallawar ...	...	" at Sambhar ...	...	
	" at Kotah ...	...	...	...	
	" at Harsoth and Tonk ...	...	...	...	
	" at Sambhar ...	...	...	...	
	Half-mounting duty ...	...	...	...	
Eripura Irregular Force ...	Comd. at Sujangarh ...	...	Comd. at Sujangarh ...	...	
	" at Jodhpur ...	...	" at Jodhpur ...	...	
	" at Abu ...	...	" at Sirahi ...	...	
	" at Pachbudra ...	...	Escort duty ...	...	
	Escort duty ...	...	...	...	
Meywar Hill Corps ...	Comd. at Kotra ...	...	...	...	
	" at Meywar ...	...	...	...	
	" at Banswara ...	...	...	...	
	Detached duty ...	...	...	...	
Mhairwarra Battalion ...	Comd. at Sambhar ...	...	...	...	
	" at Beawar ...	...	...	...	
	" at Todgarh ...	...	...	...	
	" at Jussakhera ...	...	...	...	
	" at Dewair ...	...	...	...	
	" at Saroth ...	...	...	...	
	" at Sempura ...	...	...	...	
	On escort duty ...	...	...	...	

## H.—CENTRAL PROVINCES.

Reply by the Chief Commissioner, Central Provinces, to letter No. 2055B, dated 7th July, from the Secretary to the Government of India, Military Department.

- (a) Strength of Native population.
1. The strength of the Native population in the Central Provinces was according to the census of 1872—
    - (1) 8,176,419, exclusive of feudatory States.
    - (2) 9,226,129, inclusive of feudatory States.
- (b) Strength of European and Eurasian population (exclusive of army).
2. The strength of the European and Eurasian population (exclusive of the army) was 2,025.
3. The questions which might be raised in endeavouring to discuss and illustrate "the state of feeling" in any given province of India are obviously of a very wide character; and probably the Committee will be contented on this point with a brief and very general statement of the character and condition of the different sections of the Central Provinces population, in so far as their circumstances may comprise inducements to breach of order. These two sections therefore—" (c) State of feeling," and " (d) Elements of danger"—will be considered together.
- (c) State of feeling.  
(d) Elements of danger.
4. The population of the Central Provinces is mostly agricultural, with an admixture of the commercial element not more than sufficient to carry off the produce of the land, and to provide for the wants of the people. Many of the towns even are really overgrown agricultural and commercial villages, and contain but a small proportion of the floating class, which nominally looks to service as a profession, and really lives very much on others. It is thus free from one of the chief sources of disturbance in Upper India; and the agricultural community is not here, as in the North-Western Provinces, largely made up of proprietary brotherhoods, every member of which shares the independent spirit of the landlord class, and has a strong sense of his personal claims to consideration. The preponderance of this sturdy class in the rustic population must undoubtedly enhance the difficulty of dealing with a general rising in the North-Western Provinces.
 

Character of the Central Provinces population.
  5. In the Central Provinces the bulk of the people has settled down within comparatively recent times; and the proprietary families, who either led or benefited by the immigration of cultivators, have not yet split up and multiplied so as to create a large proprietary class. Thus the mass of the ordinary agricultural population has no ambitious family traditions, and is not tied together by a hereditary and territorial bond. The elements of disorder, in short, do not present themselves here in the same form as in the better known and longer settled country to the north. On the other hand, there is a large aboriginal or semi-aboriginal population, in a low state of civilization, which may easily be led astray by men of superior position; and they find leaders, not only in their own natural chiefs, but among the Hindu landlords, many of whom, belonging in their own country to peaceable and industrious castes, such as Lodhis, Ahirs, or Kurmis, have in Gondwana developed into petty Chiefs, commanding a considerable following, and often assembling it for their favorite amusement of shooting parties. Much of our trouble in the so-called "Bundela rebellion" of 1843, and in the insurrection of 1857-58, was derived from men of this class, particularly in the Saugor and Nerbudda territories.
  6. The disturbances of 1842 commenced in the Bundela States on the northern frontier of the Central Provinces; but they rapidly spread through the Vindhyan districts of Saugor and Damoh to the Nerbudda valley, and for several months kept most of the Saugor and Nerbudda territories in constant disorder. To quell them it became necessary to collect troops from Bhopal, the North-Western Provinces, and Nagpur, for the purpose of reinforcing the garrisons at Saugor, Jubbulpore, and Hoshangabad. Eventually the insurrection was suppressed; but it was regarded by the Supreme Government in so serious a light as to require an entire change of the local administrative system and an infusion of new blood into the governing body.
 

Bundela insurrection of 1842.
  7. In 1857, the Saugor, Damoh, Jubbulpore, and Narsinghpur districts were overrun by petty Chiefs and landholders, chiefly of the Hindu agricultural races, but in some cases belonging to the aboriginal stock which furnished most of the insurgent rank and file. Damoh and Mandla were for a time actually abandoned, though afterwards recovered; and in Saugor and Jubbulpore the European residents had to confine themselves to fortified places at head-quarters. It must be added, however, that both at Saugor and at Jubbulpore there were mutinous sepoy regiments to be counted with; and Saugor was further exposed to the inroads of predatory Pathans from Bhopal and of Bundela Chiefs from Central India. Hoshangabad remained fairly quiet, except in the Nimawar pargana across the Nerbudda, which has since become part of Holkar's territory; and Nimar, though it passed through considerable excitement and danger, is said to have shown "no signs of disaffection."
 

Disturbances of 1857, Northern districts.
  8. Leaving now the northern districts on the Vindhyan plateau (Saugor and Damoh), and in the Nerbudda valley (Mandla, Jubbulpore, Narsinghpur, Hoshangabad, and Nimar), and passing on southwards to Seoni, Chhindwara, and Betul, on the Satpura plateau, the records of 1857 become more favorable. The whole of this wide and often wild hill country remained quiet throughout the disturbances; though it comprises a large aboriginal population and several extensive chiefships. But I think that, in guarding against future disorder, these territories, with their half-educated Chiefs and uncivilized population, cannot be left altogether out of account.
 

Central districts.

Gond population.
- Though the Gonds and similar races may have on former occasions held themselves harmless; and though they are generally good-natured and law-abiding enough, this very submissive element in their character may be, and often is, turned against

the law by their Chiefs; and they might be more easily excited by local mismanagement or general contagion than the better educated and better provided agricultural settlers. In the days of Mahratta rule, these tribes were regarded as really formidable by the district authorities. Captain Blunt, who travelled from Benares to Rajahmundry in 1795, experienced the greatest difficulties and dangers in his journey; and many of his followers were cut off and seen no more. The Gond Chiefs habitually defied the Mahratta authority; and Captain Blunt was regarded as most fortunate in having penetrated safely through their country, though he was often obliged to deviate from his route.\* Although they have since been thoroughly pacified by orderly administration, they have not emerged from their semi-savage ignorance, nor lost the stolid courage of their race. In Seoni, too, there is a

Musalman landholders of Seoni.

large and influential body of Musalman landholders who, until of late years, were content to guide themselves as much or more by easy semi-Hindu local custom as by the uncompromising spirit of their law. But they have not escaped the general Musalman revival; and, in the event of future troubles, all of them at any rate could not be depended upon as proof against the fanatical propaganda to which they would certainly be subjected.

9. Below the Satpura hills lie the districts of the Nagpur province proper and the backward and remote Chhattisgarh division, with its large leaven of independent or partially controlled feudatory and other chiefships. From the settled population of these territories little danger need be anticipated. It is true Nagpur contains a large city population, the Musalman element in which gave cause for anxiety in 1857; and among its residents are the representatives of two former dynasties (Gond and Mahratta), who might possibly be used as levers of disaffection by intriguing persons, as actually happened with the heirs of the Gond line of Gurha Mandla at Jubbulpore in 1857.† But as time goes on any risk of the kind will lessen; and I should be sorry to attach, even by implication, any imputation of disloyal feeling to the gentlemen who now represent the former Gond and Mahratta ruling families.

Disturbances in Nagpur and Chhattisgarh.

The country population, however, of the Central Nagpur plains showed no signs of sympathy with the insurrectionary spirit of the time; and the people of Chhattisgarh proper were, and are mostly, too poor and humble in spirit to create any apprehensions. But in some of the southern chiefships dividing the Chanda district of Nagpur from the Hyderabad State, a rebellious feeling was shown; and two European telegraph employes were murdered. So, too, one of the Chhattisgarh Chiefs rose against the Government. But, on the whole, this part of the country was far more orderly than might have been expected, considering the bad character which the outlying chiefships had once borne, and the wild nature and habits of much of their population.

10. In Sambalpur, however, to the extreme south-east, which was then attached to Lower Bengal, the British authorities had a far more difficult part to play; for disturbances continued on a greater or smaller scale and with more or less intermission from September 1857 until January 1864, when they were finally brought to an end by the apprehension of the insurgent Chief, Surendra Sa, who is now under detention as a State prisoner. Since then the province has remained quiet; though in 1876

Sambalpur rising.

there were disturbances in the Bastar Feudatory State, lying to the south-east of the Nagpur country, to suppress which it was thought necessary to call out troops; and, at the time of the present writing, the so-called "Rampa" disturbances have spread up into what was until 1874 part of the Upper Godavery district of these provinces, and it has been necessary to send troops and police from here to aid in restoring order.

Bastar and Rampa disturbances.

11. To sum up. Except at the principal places,—*viz.*, Nagpur, population 84,441; Jubbulpore, population 55,188; Kamptee, population 48,831; and Saugor, population 45,655,—where there are already, and always must be, troops, the urban population of the Central Provinces need not be taken into account as a serious element of disturbance. But out of a total population of some nine millions, at least two millions belong to the aboriginal races in various stages of advancement, but nowhere reaching a high standard of civilization. Throughout the north and centre of the province, but more particularly in the Satpura plateau, there are still many landholders who affect the status of petty Chiefs, and who at need could collect a considerable following. To the south there are large feudatory and other States, occupying a considerable area of wild country, and constituted on a footing which reserves to some a large measure of independence, to all more or less immunity from close supervision. The feudatory States alone cover an area of some 30,000 square miles, with a population exceeding a million in number; and the non-feudatory chiefships are also very extensive. Then, as to external relations, the province

External frontier.

is almost surrounded either by foreign territory or by chiefships enjoying various degrees of independence. To the north the Central Provinces march with Holkar's possessions, Bhopal, Rewah, Hatta, and other Central India States, only touching British territory on the southern border of the Lalatpur district. To the west Holkar is again a neighbour; and there is a point of contact with the Khandesh district of Bombay; but the greater part of the frontier joins Hyderabad territory. So much of the Nizam's dominions as is comprised in the Assigned Districts of Berar is, however, in point of order and security at least on a level with our own possessions. On the southern frontier, which is very short, as the Central Provinces here narrow down to a point, there is an outlying fragment of the (Madras) Godavery district, in which the Rampa disturbances are now going on. To the east the adjoining country, all more or less wild, consists of the Jeypur State, under Madras management, the Cuttack Tributary Mehals, and the south-western frontier agency of Bengal. Of a total external boundary of some 2,700 miles, 160 only march with regularly settled British territory. Thus, in estimating the risks to which the province may be exposed, sufficient allowance must be made for the chances

\* Asiatic Researches, Vol. VII, page 142.

† They were set up as leaders by mutinous sepoys and others, and were tried and blown away from guns.

of disorder in the neighbouring Native States, and for the unsettled character of the tribes which occupy most of the remaining frontier.

12. The constitution and location of the military force, by which the province is now protected, was finally determined by Sir R. Temple, in consultation with the military authorities and with his own official superiors and subordinates in 1866. A note by Mr. L. Neill "On the distribution of Madras troops in the Central Provinces," which is appended to this paper, will show how thoroughly the whole question was discussed, and how little room is left for its reconsideration. After reviewing all that has been written on the subject, and attempting to make my own independent estimate of the military wants of the province, I am unable to suggest with confidence any material reductions of the existing force; and the changes of distribution which I can recommend are but slight.

13. We have now full regiments of Madras Native infantry at Saugor, Jubbulpore, Kamptee, and Raipur; wings at Kamptee, Nagpur,\* Hoshangabad, and Sambalpur; and detachments at Sironcha (two companies) and Chanda (one company). The Chanda and Sironcha detachments are supplied by the regiment at Nagpur; and the Hoshangabad wing by the regiment at Kamptee; and the Sambalpur wing is furnished from Berhampore in the Madras presidency. There is further a British regiment of infantry at Jubbulpore, with a detachment of three companies at Saugor; a British infantry regiment at Kamptee, which sends a certain number of men annually to the Invalid Depôt at Pachmarhi; two field batteries at Kamptee and one at Saugor; regiments of Madras cavalry at Kamptee and Saugor; and detachments from Indore, European and Native, in the fort of Asirgarh. In discussing the sufficiency of this force, I will leave out of account for the present the European troops, both because, owing to their value and the risk of exposing them to the climate during two-thirds at least of the year, they can only be employed in emergencies, and, having regard to the possibility of such emergencies, any tampering with their numbers would be admittedly dangerous. In any scheme of defence or protection, however, it cannot be forgotten that they are the ultimate security on which all else depends; and for such a purpose, over such an extent of country, two regiments are certainly not an excessive contingent. The Madras cavalry regiments would probably be more suitable for taking part in military expeditions on a comparatively extended scale than for isolated action in the suppression of disturbances. It is to the Madras infantry that the province must mainly look for armed force in operations not actually amounting to war, but beyond the grasp of the police.

14. Of these regiments, that at Saugor has unquestionably an important charge and ample responsibilities. By treaty with Bhopal, we are bound to keep up a force at Saugor; and on our own account the district must be guarded against the notoriously turbulent Bundela population on the north, and possible outbreaks of fanaticism or lawlessness in the usually well-ordered State of Bhopal to the west, whilst its own population is largely penetrated by the Bundela spirit, as was abundantly made manifest both in 1842 and in 1857. It will be observed from the reply to paragraph 3 that the Major-General Commanding at Jubbulpore considers the Saugor force not strong enough.

15. For the protection of Jubbulpore and the surrounding country I was at first inclined to think that a wing of Native infantry might be sufficient. But on reconsideration I doubt whether less than a whole regiment should be maintained there, at any rate in troubled times. Not less than four companies would be required at Jubbulpore itself, to guard the railway junction and the town, which is an important centre of commerce and of communication with the surrounding territories, Native and British, and to furnish armed force for small expeditions against local outbreaks. It would also be probably necessary to maintain a detachment of at least two companies at Seoni, 85 miles south of Jubbulpore and 80 north of Nagpur, to keep open communications on that important and central highway, running through a district where we might certainly anticipate some sympathy with any general tendency to disturbance. This would leave two companies only to detach in case of need for the protection of other neighbouring towns or districts, such as Mandla or Narsinghpur, or of the northern frontier, which marches with Native States, if it be held, as I assume to be the case, that we should not in future subject ourselves to the danger, loss, and discredit of abandoning British districts to disorder and plunder, and that our policy should be one rather of timely prevention than of disregard to immediate security in the certainty of eventual success.

16. If it were possible to rest satisfied that half a regiment would be enough for the wants of Jubbulpore and the surrounding country in times of trouble, then we might perhaps dispense with the wing which is now maintained at Hoshangabad in the Nerbudda valley, some 161 miles from Jubbulpore; for the second wing of the Jubbulpore regiment would be available, wherever emergency arose, for the duties now performed by the troops at Hoshangabad. His Excellency the Commander-in-Chief of the Madras Army has lately raised the question whether the cantonment at Hoshangabad may not be abolished, and the troops dispensed with; and certainly the completion of railway communication between Jubbulpore and Bombay materially alters the conditions of military protection in the Nerbudda valley. If troops could be spared at Jubbulpore, three or four companies might now be sent from there to Hoshangabad at a day's notice, whilst, when the existing distribution of military force was made, the march would have occupied at least ten days. On the other hand, it must be remembered that from Bombay to Jubbulpore, a distance of more than 600 miles, the only troops on or near the line of railway are at Hoshangabad, Asirgarh (in Nimar), and Malegaum (in Khandesh). The small garrison at Asirgarh could not be moved about; and thus the Hoshangabad wing is the only available force along a length of some 450 miles of railway. As now posted, it guards the line of the Nerbudda where it is intersected by the chief approach from the south to Bhopal; and though the rulers of that State have hitherto rendered a loyal support to the British power, they were not able to prevent excesses on the part of their subjects both in 1843 and in 1857, and there is always a risk that the accidents of succession may bring

\* At Nagpur there are five companies.

about a changed state of feeling in a Musalman State, among whose governing classes there is notoriously a strong infusion of religious zeal. Thus it seems very probable that, even if the Hoshangabad cantonment were abolished, any general disturbance in the feeling of the country would make it necessary to detach a wing for service at Hoshangabad, or some neighbouring place, for the purpose of guarding the railway, watching the line of the Nerbudda and the Bhopal and Indore frontier, and securing the district against local disturbances among the half-civilized population of the southern hill ranges. On the whole, therefore, I am not sure that much advantage would be gained by doing away with Hoshangabad as a military station. The strength of the Native infantry now maintained in the Nerbudda valley could not, I think, be safely reduced in times of difficulty, against which we must always be on our guard; and thus the only question to consider is one of distribution. If I am right in thinking that troops would be required at or near Hoshangabad in the event of general disturbances, it might be a pity to break up existing arrangements and send the wing elsewhere, with the prospect of having to bring it back to some place unprovided with accommodation for troops on the occurrence of the first serious emergency.

17. The Hoshangabad force is at present supplied from Kamptee, where there are now an entire regiment of Native infantry and the second wing of the Hoshangabad regiment. There is also the head-quarters of a Native infantry regiment at Nagpur, ten

Kamptee and Nagpur.

miles from Kamptee, which provides detachments of two companies for Seroncha, 217 miles south-east, and of one company for Chanda, 96 miles south of Nagpur. The regiment at Kamptee may be regarded as portion of the moveable column which is maintained there, and, as such, would ordinarily be available for active operations in the field. The remaining wing is no more than would be required to maintain the guards and perform other garrison duties at Kamptee. The five companies of Native infantry ordinarily stationed at Nagpur are certainly not too large a force to watch the city, and guard the head-quarters of the province, the terminus of the railway, the ordnance depôt, and the Sitabaldi hill fort.

18. With regard then to Nagpur and Kamptee, there will probably be little difference of opinion as to the suitability of the existing force; but it has been questioned whether there is the same need for maintaining detachments at Chanda and Seroncha.

Seroncha.

After giving my best consideration to all that has been advanced on the subject, whether when the existing distribution of troops was determined, or for the purposes of the present discussion, I am inclined to think that we might now perhaps dispense with the small garrison at Chanda, but that, unless it be considered undesirable on military grounds to maintain a detachment so far from its supports, Seroncha is a point which it is very desirable to hold by military force. It was ceded to the British Government in 1860 by His Highness the Nizam, and at that time the country was a prey to constant disorder and violence. Sir R. Temple thus writes of it in his report on the Navigation of the Godavery: "I may mention a few instances (of the lawlessness of the people). In May 1860 the Bhopalpatnam Chief attacked the Noogoor sub-division and plundered six villages. Early in the same year one of the Chiefs under Bastar robbed a caravan of traders, and carried off Rs. 2,500 worth of their property. In the same year the people of the Cherla and Bhadrachallam sub-divisions went on for some time plundering each others villages. In 1859 the Cherla Chief plundered two villages in the Bastar country, whereupon the Bastar people retaliated by plundering six villages in the Noogoor sub-division. In the same year a party from the Bastar country entered the Bhadrachallan sub-division, and forcibly drove off all the cattle. Again the Cherla Chief attacked a village near Dumagudium, tortured the headman, and took off Rs. 2,000 worth of jewels. These instances might be multiplied."—(page 47.)

19. The location of a small garrison at Seroncha was first advocated in 1863 by Colonel Taylor, Inspector-General of Police, on the grounds that the situation was naturally strong; that it commanded the river Pranhita and its junction with the Godavery; that, lying between the Hyderabad territory and the feudatory chiefship of Bastar, it would be a convenient point whence to counteract disturbances in these States; and, lastly, that its isolated position laid it dangerously open to attacks from plundering bands of Rohillas. Sir Richard Temple, the then Chief Commissioner, in consideration "of the position (of Seroncha), the importance of the interests involved, and its remoteness from any aid in the time of need," strenuously maintained the necessity of garrisoning it, notwithstanding opposition from the Madras military authorities, who naturally objected to their regiments being broken up. Finally, Sir R. Temple's views were accepted, and two companies were detached to Seroncha in 1864. Since then they have twice been called out—once in 1876, to support the Deputy Commissioner in putting down a disturbance in Bastar; and at the present moment they are actually engaged in co-operating with troops from Madras for the suppression of the so-called Rampa riots. At the request of the Madras Government, the strength of the detachment has been increased to a wing, one company of which alone is retained at Seroncha, whilst the other three are to be posted at places along the left bank of the Godavery.

20. Thus, independently of the great weight which must be attached to the opinion of Sir R. Temple, I think events have shown the utility of strengthening Seroncha as a point for the maintenance of order among the wild population of Bastar and of our own territory lower down the river. The Hyderabad territory has for many years been well and strongly governed; and therefore the value of Seroncha as an outwork on that side has not yet been definitely tested. But we know, from the adventures of the Brahman dacoit leader recently captured in Hyderabad territory, that the Hyderabad population still comprises large numbers of hereditary freebooters, who are ready to raid and plunder in force on the first opportunity; and indeed it is understood that the insurgent bands on the Godavery are at the present moment largely incited and supported from the Hyderabad side. Colonel Glasford, who was for many years Deputy Commissioner and Settlement Officer at Seroncha, and who is probably better acquainted with the wants and condition of that part of the country than any other living European officer, is strongly in favor of retaining a garrison at Seroncha; and is of opinion that, if we had held it in 1857, the outbreak in the southern chiefships of the Chanda

district, by which two Europeans lost their lives, would never have occurred. He writes of Seroncha: "It may be said to be an advanced outpost of British authority occupying an important position both for attack and defence. Situated at the confluence of two large rivers, it looks out over a wild and outlying portion of the Nizam's territories; it out-flanks the most remote and inaccessible parts of the Chanda zemindaries, and it is situated on the best line of approach to the Bastar territory." Colonel Glasford's reasons, with the considerations above stated, seem to me conclusive in favor of the maintenance of a garrison at Seroncha; but, on the other hand, it must be admitted that the companies there are in an isolated position, the distance from Seroncha to Chanda being 120 miles by a mere track, mainly passing through His Highness the Nizam's dominions. Indeed, if troops are no longer to be kept at Chanda, the nearest supports to Seroncha would be at Nagpur, 100 miles further; and I have already said that I think the small detachment at Chanda might possibly be dispensed with.

21. Until lately it was undoubtedly very necessary to give military protection to Chanda. It is close to the Hyderabad frontier, and, in the words of Mr. C. Bernard, then Commissioner of the Nagpur

Chanda.

Division, "the whole of this border is somewhat remote from the head-quarters of the Hyderabad Government; and on one occasion at least within the last 30 years large bands of armed Arabs have appeared on our boundary, and burnt one village before their rulers could put any check upon them from Hyderabad. Twice at least during the past five years there have been rumours, with more or less of foundation, that armed bands were going to cross the Wardha and attack Chanda. These rumours were much credited by the Natives of these parts; and I am confident that they could be much oftener current if it were not for the Native infantry detachment. On the whole, I am myself of opinion that the decision was a wise one which placed a garrison at Chanda. I believe also that two companies is quite as small a body of men as could usefully be quartered at a place which is somewhat remote (at least six days) from support." Since Mr. Bernard wrote, just 10 years ago, a State railway has been completed from Wardha, on the Great Indian Peninsula line, to Warora, which is 28 miles only from Chanda, and thus, if it were threatened, it would be possible to throw in troops from Nagpur in two or three days. If, therefore, the gain in point of discipline of abolishing a small outlying command be thought to counterbalance the advantages of maintaining a station of support for Seroncha, and of securing Chanda against the possibility of apprehension, Chanda might be deprived of its small garrison.

22. Lastly, I think no change can be recommended in the strength or distribution of the force which protects Chhattisgarh, viz., a regiment of Madras Native infantry at Raipur and a wing at Sumbulpur.

Chhattisgarh.

These garrisons were finally fixed at their present strength in 1866, after consideration of the facts stated as follows by Sir R. Temple:—

"He is now prepared to recommend that the permanent garrison should consist of an entire wing of a regiment. The experience of 1863 has shown Mr. Temple the extreme difficulty of sending reinforcements to this remote station during the rainy season—the period of the year when disturbances would probably occur if any were contemplated. This, coupled with the consideration of the unhealthiness of the climate and the proximity of troublesome neighbours, such as the Khonds and other homogeneous tribes, and the doubtful, though not actually disloyal, conduct of the Gurjhat States of late years, has led him to the conclusion that to ensure perfect safety the military force should not for the future be below a wing of a regiment.

"In the papers forwarded with the memorandum under reply, the Madras Government proposes to detach to Sambalpur a wing of the regiment stationed at Raipur, thus dividing the Raipur regiment between these two places. But the Chief Commissioner is not prepared to recommend that this arrangement should be carried out. Raipur is the head-quarters of the Commissioner of Chhattisgarh. It has a large central jail and a treasury. The nearest military station is Kamptee, at a distance of 200 miles. To the north and south there are immense tracts of country entirely without military posts. Although the Chief Commissioner does not apprehend any danger, still he is of opinion that to leave this large territory comprising many thousand square miles, occupied by so many independent and half-civilized States, and interspersed with tribes of uncertain temper, to the protection of so weak a force as the wing of a Native regiment, would, both from a political and from a military point of view, be imprudent. Furthermore, in the event of any trouble arising in Sambalpur, or in the neighbouring States, Raipur would be the only station from which reinforcements could be conveniently sent. With this view a full regiment should be kept at Raipur. A wing would not suffice to afford any sufficient reinforcement. Moreover, it is to be borne in mind that, with the present low numbers of a battalion of Native infantry, a wing does not give any considerable force of effective men for active service. Mr. Temple therefore believes it to be really necessary that an entire regiment of Native infantry should be stationed, as at present, at Raipur, and that a wing from the regiment at Cuttack, or from any other station of the Madras presidency which may be more convenient, should be placed permanently at Sambalpur; and he trusts the Viceroy and Governor-General in Council will be pleased to accede to this proposal.

"By these means there will be just enough force at Sambalpur to hold our own for a time in case of trouble, till reinforcements arrive, and just enough force at Raipur to afford such reinforcements. And this much of military force is essential for the security of British dominion in these parts."

23. The Chhattisgarh country is thus described by the present Commissioner, Colonel Lucie Smith:—

"The Chhattisgarh division has an area of 39,987 square miles, and contains 6,434 khalsa villages, 13 feudatory States, and 49 smaller chiefships, with a population, according to the census of 1872, of over 3½ millions of souls. The country may be described as having in the centre an open, well-cultivated plain, surrounded on all sides by a broad belt of forests and hills, which is especially difficult and extensive on the north-east and south. There is but one made road in the whole country, namely, that connecting Raipur with Nagpur and Kamptee; and during the rains and early winter months cart traffic is not possible for any distance, except on this one line. The races residing in the

plains are mostly of a quiet and law-abiding character; but the population of the hilly and forest tracts are wild Gonds and Khonds, not always easy to manage. The only troops stationed in the division are one Native infantry regiment at Raipur, and a wing of a second Native infantry regiment at Sambalpur; while the nearest military station to Raipur outside the division is Kamptee, some 175 miles distant. This force of 1½ regiments seems by no means large for an isolated tract of country, which is between one-fourth and one-third the size of the Madras presidency,\* and much of which is ruled by semi-independent chieftains, each with a following of sepoy of sorts, while a considerable proportion of the population are wild and uncivilized."

24. It must be remembered that, though the cultivating classes of Chhattisgarh proper are a submissive and law-abiding race, much of the territory comprised in the chiefships is of the wildest character, and is inhabited by uncivilized tribes, who, having nothing to lose, and no settled habits, may at any moment be roused into violence. As has been seen, the Sambalpur country was kept for years in a chronic state of disorder by the influence of one discontented Chief; and the government of the feudatories is often so capricious and irregular as to require from the district officers constant intercession in order to keep the peace between them and their subjects. A railway has now been commenced to Chhattisgarh; and, when it is completed, it may be possible to reduce the Raipur garrison to a wing. But till then, I think, the question of reduction of military force in Chhattisgarh is not even open to discussion.

25. On the whole, if considerations of economy are to be treated as predominant, and there must be reduction somewhere, I think the Central Provinces could most easily spare the wing at Hoshangabad, which could then be transferred to Sambalpur, so as to set free the wing now furnished by the regiment from Berhampore in the Madras presidency. But having regard to the points which it would be necessary to guard and occupy in times of trouble, the force provided for the protection of the province seems to me by no means too large, and I could not conscientiously recommend that it should be permanently reduced by a single corps. If reductions are to be made, perhaps the Army Commission may be able to devise some means of lessening the number of men employed in times of peace, whilst maintaining the present number of cadres and providing for their being filled up at short notice to their full strength. Here, perhaps, there would be some difficulty. Native regiments, especially Madras corps, are called upon to serve at long distances from their homes, in to them foreign countries; and if their members were dispersed, it might be a work of time and trouble to bring them together again to their appointed station. In considering these questions, it will probably not be forgotten that reduction in the Native army will pretty certainly involve increase in the police; and in this connection questions may arise on which it will be advantageous that the Army Commission should express an opinion. Probably there is no reason why some of the work of protection, which is now done by the comparatively costly agency of sepoy, should not be undertaken by semi-military police or militia, trained to act together, but maintained in an inferior, and therefore less expensive, way. In that case it would be necessary to bear in mind that since a constabulary on the model of the Irish police was first introduced, it has (in this province at least) lost some of its original military character. District superintendents are now no longer drawn from the army; and owing to the increase of the ordinary duties of the police in consequence of the regular progression of the country, and the new calls made on their time by sanitation, vital statistic registration, and the like, the force has not much spare time for drill, and has but an inconsiderable trained reserve available for united action. As police charges are now provincial, and as provincial funds have to bear a continually increasing burden, there is a constant temptation, amounting indeed almost to a necessity, to keep down the cost of the police, as one of the heaviest items of provincial expenditure; and if the strength of the army be reduced, it may be advisable to guard against this tendency.

26. The strength of the police at the close of the year 1878-79 was 8,507 officers and men. The distribution of the police (f) is shown in the annexed statement; and as regards the efficiency (g) of the police, it may suffice to note (1) that—

(e) Strength of police.  
(f) Distribution of police.  
(g) Efficiency of police.

3,133 men are armed with carbines,  
576 men are provided with swords and batons,  
4,768 men are provided with batons only,  
the remainder being recruits; and (2) that, generally speaking, the force suffices for the prevention and detection of crime in the several towns and districts and for the maintenance of a small reserve at the head-quarters of the several districts.

27. The European and Eurasian population in these provinces is very small, except at Nagpur and Jabalpur. At the former place, if it is correctly computed, it amounts to 901, of which a large portion must consist of women, children, old men, or railway servants; for the strength of the Nagpur Volunteers after all that has been done by example and encouragement to swell the roll is 103 only. The male adults of the railway population cannot be taken into account, as they have a corps of their own. At Jabalpur, with a recorded European and Eurasian population of 477, there are no general volunteers, and probably not enough men available to make up an independent body; but there is a railway company, with 53 effective members. The only other places where the numbers of Europeans and Eurasians are not absolutely insignificant are Khandwa (181), Harda (85), Saugor (59), and Kamptee (261). In the two latter the Europeans returned must mostly belong to the families of officials, though there are a certain number of clerks and pensioners.

\* The Madras presidency has an area of 139,608 square miles.

28. Volunteers, where they exist, being drawn almost exclusively from the Government and

(j) Development of volunteer system.

Railway services, can only be counted upon to set free regular troops for other duties in a few very exceptional cases. No doubt, a volunteer corps might be used to support Native troops in quelling a sudden and serious tumult; or it might be most valuable if the Native troops themselves showed signs of disaffection, and it became necessary to hold them in check till assistance came; or, if the project, once so much mooted, of providing each large European community with a fort of refuge for troubled times, had travelled beyond the stage of discussion, it is obvious that a body of men trained to act together would have greater facilities for defending themselves than a mere disjointed assemblage of clerks and other civil officials. Their volunteer training would double their strength as a garrison, and the security of their position behind walls would relieve them of immediate anxiety about their families, and so set them free for organized watch and ward. Here the case is supposed of disorder so complete and general as to confine the European population within more or less fortified enclosures at central stations, and to prevent them from going about their ordinary avocations; but, in a less extreme case, when the country is uneasy, but we still retain our hold of it, most of the volunteers would be required to carry on their regular work, and would have little or no time for military duties. In seasons of trouble, as at other times—more indeed than at other times—the public business must be promptly and efficiently performed, trains must run, offenders must be tried, supplies must be collected, and the revenue must be got in. A volunteer force can thus only take the place of regular troops either in a moment of sudden danger, when its services are only momentarily required, or in the last extremity of all, when the ordinary machinery of society is suspended, and the only duty left is that of resisting extirpation. In these provinces at any rate we cannot hope that the volunteer force will ever be considerable enough to count much towards the protection of the country; but something will be gained if the present discussion should revive the schemes for enabling the scanty European population to make the most of its strength, in case of need, by the aid of fortified enclosures. Possibly, and indeed not improbably, such forts might be made the means of strengthening and concentrating the volunteer organization, by providing volunteers with a centre of interest and of duty, in which even the older and less robust members of the community might find a useful place, and even of enhancing their defensive power, by training all effective volunteers to the use of guns.

29. What I had to say on this point has been anticipated in my reply to paragraphs (c) and (d).

General military requirements of the province—  
(a) for garrison purposes and the maintenance of order;  
(b) for internal and external military purposes irrespective of (a).

The opinion of Major-General Browne, Commanding the Saugor District, is, however, appended, and will show that he thinks the force at Saugor hardly strong enough, and would reinforce it with a company of European infantry from Jubbulpore. Major-General

Walker, Commanding the Nagpur Force, considers the troops at Kamptee sufficient for all requirements.

The 9th August 1879.

(Sd.) C. GRANT,

Offg. Chief Commr., Central Provinces.

Statement showing the strength and distribution of the Police Force (district and municipal) in each district of the Central Provinces, including Railway Police.

District.	Inspector general.	District superintendents.	Assistant district superintendents.	Inspectors.	European constables.	Chief constables.	Head constables.	Constables.	Mounted police.	Total.
Nagpur ... ..	1	1	1	7	3	19	119	818	40	1,009
Bhandara ... ..	...	1	...	3	...	10	49	358	7	426
Chanda ... ..	...	1	...	5	1	16	70	515	19	627
Wardha ... ..	...	1	...	3	1	11	57	363	12	453
Balaghat ... ..	...	1	...	2	...	6	31	197	5	242
Jubbulpore ... ..	...	1	...	5	3	16	86	584	14	709
Saugor ... ..	...	1	...	5	1	19	75	625	14	749
Damoh ... ..	...	1	...	3	...	10	52	307	7	380
Seoni ... ..	...	1	...	2	...	7	37	257	8	312
Mundla ... ..	...	1	...	2	...	7	34	247	5	296
Narsinghpur ... ..	...	1	...	3	1	9	49	320	5	388
Chhindwara ... ..	...	1	...	3	...	9	39	326	5	383
Betul ... ..	...	1	...	3	...	8	45	278	5	340
Hoshangabad ... ..	...	1	...	4	1	12	73	503	10	604
Nimar ... ..	...	1	...	4	2	10	57	361	10	445
Raipur ... ..	...	1	1	3	...	15	56	398	18	492
Bilaspur ... ..	...	1	...	3	...	9	35	242	8	298
Sambalpur ... ..	...	1	...	2	...	9	45	296	10	363
<b>Total</b> ... ..	<b>1</b>	<b>18</b>	<b>2</b>	<b>63</b>	<b>13</b>	<b>202</b>	<b>1,009</b>	<b>6,998</b>	<b>202</b>	<b>8,507</b>



No. 1431, dated Jubbulpore, 3rd August 1879.

From—MAJOR-GENERAL H. R. BROWNE, Commanding Saugor District,

To—The Secretary to the Chief Commissioner, Central Provinces.

I have the honor to acknowledge your letter No. 3224-175 of the 31st July 1879, requesting my opinion as to the general military requirements for garrison purposes and maintenance of order at Saugor and Jubbulpore.

2. The present garrisons are as follows :—

*Saugor.*

- 1 Field Battery Royal Artillery.
- 2 Squadrons Madras Cavalry.
- 3 Companies British Infantry.
- 1 Regiment Native Infantry.

*Jubbulpore.*

- 1 Squadron Madras Cavalry.
- 5 Companies British Infantry.
- 1 Regiment Native Infantry.

3. Each of these garrisons furnishes a moveable column, kept at all times in readiness for immediate service.

The Saugor Column consisting of—

- $\frac{1}{2}$  Battery Royal Artillery,
- 2 Squadrons Madras Cavalry,
- 3 Companies British Infantry,
- 4 Companies Native Infantry,

and the Jubbulpore Column of—

- 1 Squadron Madras Cavalry,
- 2 Companies British Infantry,
- 2 Companies Native Infantry.

Transport for  $\frac{1}{2}$  battery Royal Artillery is also maintained for this Column, but at present guns are not available at the station.

So far as the maintenance of order is concerned at either station or in the extensive districts surrounding, I have no doubt that these columns are sufficient (but not more than sufficient) to meet any emergent requisition for aid from the civil authorities. When not specially employed, the troops composing these columns are available for, and take their share of, the ordinary duties of their respective garrisons.

4. The situation of either garrison in the absence on service of its moveable column must, however, be considered.

At Saugor there would remain—

- $\frac{1}{2}$  Battery Royal Artillery.
- 4 Companies Native Infantry.

At Jubbulpore—

- 3 Companies British Infantry.
- 6 Companies Native Infantry.

5. The position at Saugor would under such circumstances be decidedly critical ; for it is isolated, and at certain seasons not easy of access. I should not have the same anxiety as regards Jubbulpore, which has communication on the main lines of railway. Neither garrison, in the absence of its moveable column, could do more than to guard public property, and perhaps afford some check upon the population in the two cities adjacent to the cantonments.

6. Jubbulpore might look to Allahabad for the  $\frac{1}{2}$  battery Royal Artillery required to complete its moveable column ; but, with that exception, these garrisons are the only reliable military aid in large areas of country. There is nothing nearer to Saugor than the garrison of Nowgong, itself isolated and distant 11 days' march. The nearest garrison to Jubbulpore (excepting Allahabad, which could hardly be in a position to spare troops) is Kamptee, distant 17 days' march.

7. As regards ordinary routine duties for guard and escort, these garrisons are about on a par with other stations in India.

The troops have a fair amount of relaxation, but not more than is necessary for health and efficiency in point of military training.

8. The only recommendation that I should feel justified in making for the consideration of the Government of the Central Provinces is, that the British regiment should be equally divided between Saugor and Jubbulpore, giving Saugor the advantage of an additional company, which would be a better distribution in every respect than at present.

No. 163, dated Kamptee, 2nd August 1879.

From—MAJOR-GENERAL M. WALKER, V. C., C. B., Commanding Nagpur Force,

To—The Secretary to the Chief Commissioner, Central Provinces.

Referring to your letter No. 3224-175, dated 31st July 1879, I have the honor to state that in my opinion the force at Kamptee is ample for garrison purposes, as well as for the maintenance of order. The force is compact, and, being judiciously concentrated as it is, is capable of being drawn upon in case of any disturbance in the district.

*Note on the Distribution of Madras Troops in the Central Provinces.*

1. The question of the construction of new lines for the Madras troops located at Hoshangabad has lately been, and is still, under consideration, and the Major-General Commanding the Nagpur Force in a letter No. 163, dated 1st April 1879, to the Quarter-Master-General, Fort St. George, remarked: "It is impossible to obtain at Hoshangabad a site free from defects. The station is very old and dilapidated. I am unable to see the necessity for troops there."

A copy of the letter was forwarded to the Chief Commissioner with the Quarter-Master-General's No. 147—3153, dated 12th April 1879; and in this letter the Chief Commissioner's attention is asked to the general question of the location of troops in the Central Provinces. The location is the same now, it is said, as it has been for many years past; and the question is as to the necessity at the present day of maintaining the same distribution as was found expedient some fifteen years ago.

2. In the Quarter-Master-General's letter it is asked—

- (1) whether it is necessary to retain a wing of a Native regiment at Sambalpur;
- (2) if necessary, whether it would not be preferable to detach a wing from the regiment at Raipur rather than from the regiment at Berhampore;
- (3) whether a wing is required at Hoshangabad; or whether it would not be better to place a complete second Native regiment at Kamptee;
- (4) whether it is necessary to maintain military detachments at Chanda and Sironcha.

3. The Chief Commissioner having desired that a note should be put up after examination of the old records, these records were sent for. They were received in some eight bundles and were found to be greatly mixed up. A chronological arrangement was then made, and I have now arranged from 70 to 80 papers in orderly sequence. To each paper I have given a number in red ink; and when in the course of this note it is necessary to refer to such paper, it will be referred to by its red ink number.

4. In letter No. 181, dated 6th June 1862, (1) the Brigadier Commanding the Nagpur Force reported on the strength of the military force, which, in his opinion, was required for the Chanda district. He had with the Chief Commissioner gone to Chanda and talked the matter over with the Deputy Commissioner. He found that the military were apparently asked for on these grounds:

- (i) because of apprehensions of dacoits;
- (ii) because of dreaded attacks or incursions by Rohillas from the Nizam's country; and
- (iii) lest at any time there should be disturbances and an overthrow of the government at Hyderabad.

As to (i), the Brigadier thought the apprehensions unfounded, and that the police would be able to keep down dacoits. Similarly the fears as to (ii) seemed exaggerated; while there was nothing to warrant the fears on the third head. The Brigadier, however, thought 200 men needed for the defence of Chanda; and as he found it difficult to send them from the regiment at Kamptee, he proposed that the garrison at Chanda should be composed of men of the late 2nd Nagpur Regiment.

5. The Chief Commissioner replied in letter No. 2229, dated 14th June 1862, (3) from which I take the following extract:—

"In the joint-report recently presented by Colonel Elliot and the Officiating Chief Commissioner, it was indeed recommended that Chanda should be garrisoned by a frontier police of 400 men to be formed from the 2nd Regiment Nagpur Irregular Force. But since the submission of that report the arrangements made by the Resident of Hyderabad for the military occupation of the Wun district on the Wardha river, opposite Chanda, have rendered the Chanda district more secure than heretofore. And after a personal visit to Chanda made in conjunction with yourself, the Officiating Chief Commissioner is convinced that 200 men will now suffice. Being fortified by your opinion on the above point, the Officiating Chief Commissioner has now caused the 2nd Regiment Nagpur Irregular Force to be entirely broken up, and has ordered a police reserve of 200 trained and selected men to be placed at Chanda. For the present then the Officiating Chief Commissioner will not further press his request for any regular military force at Chanda."

6. The rest of the letter was taken up with matters regarding troops at Raipur and elsewhere; and paragraphs 8 to 11 are—

"(3) The Officiating Chief Commissioner fully appreciates all you say regarding the heavy duties devolving on the Madras Native infantry at Kamptee and Sitabaldi. Still, having regard to the position of Raipur and to the positive orders received from the Supreme Government regarding retrenchment of police expenditure, the Officiating Chief Commissioner was constrained to suggest to you demi-officially the desirability of despatching a wing of Madras Native infantry to Raipur by as early a date as might be conveniently practicable. In conveying to you the Officiating Chief Commissioner's cordial acknowledgments for your prompt compliance with this requisition, I am now to explain to you officially why a wing of Madras Native infantry is required at Raipur.

"(4) In a letter dated 30th September last, from the Supreme Government to the Chief Commissioner, it was laid down that the ultimate and entire reduction of the infantry of the Nagpur Irregular Force was to be kept steadily in view, and to be carried out as rapidly and effectually as might be safe and practicable. The same instructions then went on to prescribe that 'the place of the infantry regiments as they are reduced will be supplied by regular regiments of the Madras Native infantry; but it is expected that Chanda and Raipur will not each require a whole regiment for their garrison. A wing will probably hereafter be found ample.'

"(5) After that it was indeed proposed by Colonel Elliot and Mr. Temple to maintain at Raipur a frontier police battalion of 400 men to be formed out of the 1st Regiment Nagpur Irregular Force. But the recent orders already alluded to regarding further retrenchment of police expenditure rendered the Officiating Chief Commissioner desirous of reverting to the authority above, cited for the breaking up of the 1st Regiment, provided that some military force could be obtained for Raipur. And further the recent addition to the Central Provinces, Sambalpur and its dependencies, which do, as you are aware, comprise a difficult frontier requiring military support, made Mr. Temple

still more desirous of securing a wing of Madras Native infantry at Raipur in the manner laid down by the Supreme Government. The Officiating Chief Commissioner now having received intimation of the despatch of a wing, is arranging for the breaking up of the 1st Regiment, and for the absorption into the police of those men who may elect to stay in the service.

"(6) The lines and buildings at Raipur recently occupied by the 1st Regiment Nagpur Irregular Force will be entirely available for the men of the Madras Native Infantry.

"(7) It will be in your recollection that the expediency of a wing of Madras Native infantry being stationed at Raipur was urged on the Officiating Chief Commissioner's notice by Lieutenant-Colonel Bruce, the Inspector-General of Police for India; and I am to add that the views expressed in preceding paragraphs are by that officer concurred in.

"(8) I am to take this opportunity of observing that the Officiating Chief Commissioner has already intimated that there is no longer any civil or political reason for retaining the detachments at Narsinghpur and Betul. These can, so far as this administration is concerned, be returned to their head-quarters at Hoshangabad, if that should be convenient to you. There will then be no detachment of Native infantry within the Kamptee military division, except those at Nagpur itself.

"(9) The Officiating Chief Commissioner is indeed aware that the Nagpur detachments (Sitabaldi) are numerous. But ultimately he trusts that the abolition of the arsenal at Sitabaldi will set free the greater part of these detachments. As you are aware, the above measure was recommended by Colonel Elliot and Mr. Temple; and recently, on a reference made by the Supreme Government, the Officiating Chief Commissioner reiterated that recommendation.

"(10) I am to add that, if after the return of the Narsinghpur and Betul detachments to Hoshangabad, you should think fit to call two or three companies from that regiment to Kamptee, there can apparently be no civil or political objection to that arrangement.

"(11) I am to take this opportunity of stating that the general arrangement and distribution of the mounted branch of the police in these provinces has been made on the supposition that there will be some regular cavalry maintained at Kamptee. There will be not more than 100 police sabres in the Nagpur district, of which there will not be more than 30 at Sitabaldi. None of the neighbouring districts will have more, and most will have less. In the event of any emergency then, there will not be any police horse which could be placed at the disposal of the military authorities. This point will be immediately brought to the notice of the Supreme Government. The Officiating Chief Commissioner, however, believes that it is intended to station some cavalry, either regular or irregular, at Kamptee."

7. In order that the Madras Government might arrange for the permanent location of troops at Raipur, the Brigadier, in letter No. 193, dated 20th June 1862, (5), asked that the sanction of the Government of India might be procured. Letter No. 2493, dated 14th July 1862, (6), was then addressed to the Government of India in the Military department; and in its reference was made to a report submitted to the Home Department (not in the file) regarding the new organized constabulary.

8. In a letter No. 2521,\* dated 16th July 1862, to the Brigadier, the Chief Commissioner, referring to his letter noted on and quoted in paragraphs 5 and 6, explained officially the circumstances under which he had suggested the expediency of detaching two companies Madras Native infantry to Chanda. These circumstances were that as men of the 1st Nagpur Irregular Force at Raipur had elected to take their discharge with gratuity in preference to serving in the police, it was thought likely that their comrades who were to serve in Chanda would similarly elect. The anticipation was correct; and apparently two companies Madras Native infantry were at once sent off to Chanda. For the Chief Commissioner thanked the Brigadier for his promptitude in despatching them, and promised hereafter to communicate his suggestions as to whether the two companies should remain there, or whether Chanda should be garrisoned by men of a new police reserve.

9. In letter No. 2693, dated 6th August 1862, to the Home Department (No. 8), copy of which was forwarded to the Foreign Department, the Chief Commissioner detailed how the arrangements for garrisoning Chanda with men of the Nagpur Irregular Force, who were to be converted into reserve police, had fallen through, and he continued:—

"(5) The Chanda reserve having thus ceased to exist, the Officiating Chief Commissioner provided immediately for the garrison certainly required for that station, by moving the Brigadier Commanding the Nagpur Force at Kamptee to detach two companies of Madras Native infantry to Chanda. These troops are now there.

"(6) All things considered, Mr. Temple does not now recommend the formation of a new police reserve for Chanda. But he would revert to the arrangement sanctioned to be made in paragraph 25 of letter No. 5661\* of the 30th September 1861, from the Secretary to Government of India in the Foreign Department. By that arrangement, one wing of a Native infantry regiment would be stationed at Chanda and one at Raipur. He would propose that this be permanently carried out for the two stations.

\* \* \* \* \*

"(8) The stationing of a wing of Native infantry at Raipur and a wing at Chanda need not, in the Officiating Chief Commissioner's opinion, entail any increase to the regular Native troops in the Nagpur division. This force now consists of three regiments, two at Kamptee and one at Hoshangabad. An entire regiment is now at Hoshangabad, the detachments heretofore at Betul and Narsinghpur having rejoined their head-quarters. But, in point of fact, a wing furnishes ample force for Hoshangabad; and heretofore there has never been more than a wing at that station. In this case, then, a wing from Hoshangabad could be sent to Kamptee. And the force at Kamptee would thus be made up to 1½ regiments, even after the despatch of a regiment for Raipur and Chanda.

" (9) The past and proposed distribution may be thus compared :—

	Kamptee.	Hoshang- abad.	Narsingh- pur.	Betul.	Raipur.	Chanda.
Past ...	2 regts.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	0	0
Proposed ...	1 $\frac{1}{2}$ "	$\frac{1}{2}$	0	0	$\frac{1}{2}$	$\frac{1}{2}$

" The Officiating Chief Commissioner is confident that in a military and political point of view the proposed distribution is preferable to the former one.

" (10) It might further be desirable to strengthen the force at Kamptee by an additional wing of Native infantry from Jubbulpore. It would be admitted on all hands that a wing (instead of a whole regiment as at present) would suffice for Jubbulpore. In that case the regiment at Jubbulpore

could furnish a wing to Hoshangabad, which could be transferred to the Jubbulpore command; and the entire regiment at Hoshangabad could be transferred to Kamptee, which could then have two regiments."\*

\* Paras. 8, 9 were communicated to the Military Department.

10. The communication to the Military Department was in letter No. 2695, dated 6th August 1862\* ; and in asking sanction to the permanent location of wings at

Chanda and Raipur, the Chief Commissioner referred to the addition of Sambalpur to the Central Provinces, and to Chanda being a frontier district. He also referred to the need of a squadron of cavalry at Kamptee.

The Government of India passed orders on this reference in letter No. 94, dated 4th October 1862, to the Government of Fort St. George, (10), copy of which was sent to the Chief Commissioner under endorsement No. 95 ; and the orders were—

" (2) The Governor-General in Council entirely concurs with the Government of Fort St. George in thinking that the Nagpur Irregular Force at Kamptee and Sitabaldi should be not less than two regiments ; and the location of a complete corps of Native infantry at Raipur would be preferable to the unnecessary division of a regiment.

" (3) As, however, a wing is now required at Chanda also, His Lordship in Council considers it necessary to fix the Nagpur Irregular Force for the Nagpur province at four instead of three regiments ; and these should be distributed as follows :—

Kamptee and Sitabaldi	...	...	...	2 regiments.
Hoshangabad	...	...	...	1 regiment.
Raipur and Chanda	...	...	...	1 "

The proposal of the Chief Commissioner to place a full regiment at Kamptee and a wing only at the other four stations would involve the permanent division into wings of two regiments, and would, in the opinion of the Governor-General in Council, be inexpedient on other grounds also.

" (4) In order to avoid the division of the regiment at the two remote stations of Raipur and Chanda for a longer period than one year, the corps so divided might be relieved annually from Kamptee, returning either to the latter station or to some other as may be most convenient.

" (5) With respect to the artillery, I am to state that it was far from the desire of the Government of India that the reduction of the remaining Native artillery should be expedited by any summary measures ; and as it appears that the removal of a European battery from Kamptee would not facilitate the reduction (as was supposed at the time letter No. 605, dated 17th May, was written) while there is accommodation for it elsewhere, the battery must of course remain at Kamptee for the present. But the Governor-General in Council will be glad to know, as early as convenient, how the Government of Fort St. George proposes finally to distribute the batteries of artillery, the maintenance of which in the Madras presidency has now been decided on.

" (6) It will rest with the Government of India in the Financial Department to decide whether the cost of the wing of the light cavalry and the battery of artillery which will thus be located in the province in excess of its requirements should be debited to Nagpur."

11. The Chief Commissioner acknowledged this letter in his No. 3376, dated 17th October 1862† ; and, while observing that he had no remarks to make regarding the strength of the Native infantry regiments allotted to the province, four instead of three, said, in regard to its distribution, that the scheme of Government provided a whole regiment for Hoshangabad and half for Raipur. He thought the provision should be altered, half-regiment being assigned to Hoshangabad and one regiment to Raipur. He said :—

" (3) Hoshangabad has no elements of trouble in its immediate neighbourhood. To the north there is the friendly and well-ordered State of Bhopal. To the west the territory of Holkar is dominated by the large cantonment of Mhow. To the south-west Khandesh is securely held by Bombay troops. Of late years at least Hoshangabad has never had more than half a regiment. Its having a full one just now is merely owing to the withdrawal of detachments from neighbouring stations under the new police system. On the other hand, Raipur is the only support to the eastern frontier, which is in itself wild and troublesome, and adjoins petty Native States of indifferent character. It will be in the recollection of Government that a rebellion in Sambalpur has but recently been quelled ; and none can be sure whether disturbance might not break out again in that quarter. Adjoining Sonpur (to the south of Sambalpur) there is Boad, an ill-conditioned tract ; and below that again the turbulent Khond tribes, extending a considerable distance southwards. To meet all ordinary contingencies, perhaps the wing at Raipur, together with the organized police in that quarter, may suffice ; but at the best it would be just sufficient and no more. On the other hand, support is distant, the nearest being Nagpur. Moreover, Raipur has been heretofore held by a full regiment of the Nagpur Irregular Force.

" (4) These considerations appear to the Officiating Chief Commissioner to show that if there be any reserve force disposable, a part at least should be at Raipur rather than at any other out-station.

The Officiating Chief Commissioner would, therefore, recommend the following distribution of Native infantry force now fixed by the Supreme Government :—

					Regiments.
Kamptee	...	...	...	...	2
Raipur	...	...	...	...	1
Hoshangabad	...	...	...	...	$\frac{1}{2}$
Chanda	...	...	...	...	$\frac{1}{2}$
				Total	4

"(5) There would be no more difficulty in dividing a regiment between Chanda and Hoshangabad than between Chanda and Raipur. Indeed there would be less; for the communication between Chanda and Hoshangabad is fair, whereas between Chanda and Raipur it is bad."

12. This amended distribution proposed by the Chief Commissioner was sanctioned by the Government of India, Military Department, in letter No. 455, dated 15th November 1862, to the Government Fort St. George, sent to us under endorsement No. 456 (12), which enquired whether any extra expenditure would be incurred by this distribution. The Chief Commissioner replied in letter No. 3G., dated 13th December 1862, (13B), that the only extra expenditure would be in accommodation at Raipur, but that he felt sanguine that such expenditure would be small.

13. In a letter No. 583,\* dated 12th February 1863, to the Chief Commissioner, the Government of India, Military Department, asked if special circumstances rendered it necessary for Government to construct quarters for officers at Raipur and Chanda, as it was not usual to construct quarters for officers, especially at stations fixed on as permanent posts for regiments or wings.

The reply was (letter No. 202C., dated 11th March 1863, (27) ), that the accommodation for officers at these stations is exceeding by small, and that it was thought at one time that it might be necessary to address the Supreme Government on the subject. The necessity had, however, passed away.

14. After a visit to the Chhatisgarh division, the Chief Commissioner found it necessary to address the Government of India in the Military Department regarding troops for Sambalpur; and this he did in letter No. 205C., dated 11th March 1863 (28).

After adverting to the rebellion in Sambalpur, to its isolated position, the excitable nature of its inhabitants, and of the surrounding Native States, its distance from Raipur, and the overlapping on the line of road of the Phuljhar State, where a small force might keep a large one in check, it was said :—

"For the reasons above stated, the Officiating Chief Commissioner begs to recommend the following modifications of the present distribution of the Native troops in the province as recently sanctioned by the Supreme Government :—

- (1) A detachment of not less than two companies from the regiment at Raipur to be permanently located at Sambalpur.
- (2) The detachment of the Raipur regiment now at Chanda to be withdrawn from that station to its head-quarters.
- (3) Two companies or more up to a wing as already sanctioned, according to what for military purposes may be considered most advisable by the military authorities, to be detached to Chanda from the regiment at Hoshangabad.

"With these modifications, the Officiating Chief Commissioner believes the distribution of the Native troops will be such as entirely to meet the existing political requirements of the province."

15. On the 2nd September 1863, Colonel Taylor, the Inspector-General of Police, Central Provinces, forwarded to the Chief Commissioner a memorandum† on the Seroncha (Upper Godavery) district. He referred to a fort which commanded the upper and lower reaches of the river as well as the opposite or right bank, and to the medical opinion that the place when cleared would not be unhealthy; and then said :—

"As a strategic position, it appears to possess peculiar advantages. Some of these may be set forth as follows.

"The situation is naturally strong, and by artificial means might be made much more so. It commands the river Pranrita and its junction with the Godavery. It is the nearest point of the Central Provinces to the city of Hyderabad, to which there is a direct road from Seroncha by Chinoor. There is also another and somewhat longer road by Kulaishwar, Mahadepur, and Warangall. The latter is a large town in the Nizam's dominions and has a strong fort. If at any time military operations were to be undertaken from the Central Provinces in the Hyderabad country, an advance upon Hyderabad city could be more advantageously made by either of the roads from Seroncha than by the upper road which crosses the Wardha near Warora in the Chanda district or by the road from Chanda itself. A force if proceeding by the Warora road would have to pass over the hills north of Nirmull at the Mukulgunder Ghât (goat's pass), which is said to be a very strong position. It would also have to cross both the Painganga and the Godavery rivers at a considerable distance from our own frontier. If advancing by the Chanda road, it would have to cross the Godavery under similar conditions; and an enemy would doubtless take advantage of these crossings to offer a serious resistance. But on the road from Seroncha such difficulties would not be encountered. The Hyderabad road *via* Warangall, which is the most frequented and the one by which an invading force would advance, crosses the Godavery at Kulaishwar, which is only 2 miles from Seroncha and at the junction of the Godavery and Pranrita. On the first outbreak of hostilities, a detachment would naturally be at once thrown across the Pranrita and seize upon Chinoor and Kulaishwar. The former is 12 miles from Seroncha. This would give us the command of the small doab between the two rivers (Pranrita and Godavery) and possession of the high roads to Hyderabad and Warangall. The country through which the road from Seroncha passes is also preferable, from being through a more populous and cultivated country where supplies for an army could be more readily obtained.

"The distance to Hyderabad by each route is shown in the margin. In the event of disaster, the safe passage of the Pranhita by a retreating force would be secured by a battery on the Seroncha fort and a favorable position provided for a successful resistance. These advantages would not exist on either of the other roads unless previously prepared. Again, if hostilities were commenced

Warora to Hyderabad	... }	Miles.	310
Chanda "	... }		
Seroncha "	... }	170	
" to Warangall	... }	80	

in the Hyderabad country, although no troops might be sent from the Central Provinces, still the occupation of Chinoor and Kulaishwar would be a politic measure, and one which would go far to prevent any aggression into our territories from beyond the Pranhita; but such occupation could only be made with promptitude from Seroncha. From there it could be effected at a day's notice by a party from the garrison; and the proximity of the main body at Seroncha, ready to reinforce the detachment if necessary, and the facility of furnishing it with supplies from the sudder station, would relieve the authorities of any anxiety on its account."

The Inspector-General also thought that its geographical position indicated Seroncha as a desirable military station; thus it lay between the Nizam's State and the feudatory chiefship of Bastar, and both these States would be kept in check by the presence of the military at Seroncha. Trade would also, by the presence of a military force, be attracted to Seroncha. Lastly, the Inspector-General dwelt upon the isolated position of the place, the small police force there, and its probable inability to resist any armed Rohilla bands bent upon plunder. The Inspector-General therefore recommended that, when a wing of a Native infantry regiment was located at Chanda, 200 men should be detached for duty at Seroncha. The memorandum was submitted to the Government of India in the Military Department with our No. 4010, dated 11th September 1863, (30), copy being sent to the Foreign Department; and the Chief Commissioner, without endorsing all the remarks of the Inspector-General, said:—

"The Officiating Chief Commissioner is constrained to admit that, considering its position, the importance of the interests involved, and its remoteness from any aid in a time of need, Seroncha is not sufficiently protected; and the Officiating Chief Commissioner would therefore recommend, for the consideration of the Government of India that a detachment of Native troops should be sent there.

"The Officiating Chief Commissioner had recently the honor to submit to the Government a proposal that one wing of the Native regiment stationed at Hoshangabad should be transferred to Chanda, to enable the military authorities to concentrate a full regiment at Raipur. The Officiating Chief Commissioner understands that this proposal, so far at least as regards the movement of the wing from Hoshangabad to Chanda, and the transfer of the detachment now at that station to Raipur, has been approved of. He would now recommend that of the wing to be so transferred to Chanda, two companies only should remain at that station, and the other two companies be moved on to Seroncha, and permanently cantoned there. The Officiating Chief Commissioner believes that if this arrangement were carried out, then two companies would suffice for Chanda, as the detachments there and at Seroncha would mutually support one another, while the general military defence of that portion of the Central Provinces frontier would be improved."

16. In a letter No. 4909, dated 5th November 1863, (31), the Officiating Chief Commissioner solicited the Military Department to pass early orders on his request for a transfer of a wing of the regiment at Hoshangabad to Chanda, and to the location of a full regiment at Raipur; and in letter No. 605, dated 26th idem, (32), the Military Department said that orders in the sense desired had issued to the Madras Government.

17. A reply to the proposal to sub-divide the wing proposed for Chanda and send two companies to Seroncha was made in Military Department letter No. 616, dated 27th November 1863, (33). The sub-division was on military grounds strongly objected to; and the belief was expressed that the Chief Commissioner would not for the sake of providing troops for Seroncha advocate the addition of a fifth regiment of the Nagpur Irregular Force in the Nagpur province.

His Excellency the Commander-in-Chief, Madras, had, however, expressed the following views:—

"If troops must be at Chanda, and Seroncha is to be its outpost, His Excellency thinks that it is better far to send a regiment from the Northern Division to occupy those two places."

The Officiating Chief Commissioner, however, did not think it proper to allow the subject to drop, and dealt further with it in letter No. 5604B., dated 17th December 1863, to the Military Department (34A). In that letter he said:—

"(3) The sense of the importance of the subject which the Officiating Chief Commissioner previously entertained has not diminished. He therefore thinks that he would incur a grave responsibility if he did not again bring the matter under the notice of Government.

"(4) In my former letter it was proposed to detach two companies from the wing of a Native regiment which has been ordered to be located at Chanda. But this is now objected to by His Excellency the Commander-in-Chief of the Madras Army. And it is added that if troops are to be at Chanda, and Seroncha is to be an outpost, His Excellency the Commander-in-Chief thinks it is better to send a regiment from the Northern Division to occupy those places.

"(5) The Officiating Chief Commissioner fully appreciates the objection to breaking up a regiment into small detachments. And he would now therefore submit that the measure suggested by His Excellency the Commander-in-Chief, or a measure similar thereto, should be carried into effect.

"(6) The measure which His Excellency the Commander-in-Chief has suggested would have the effect of keeping a full regiment at Hoshangabad, instead of a wing there and a wing at Chanda. And it would be for the Supreme Government to decide whether that course should be adopted, or whether it would be more advisable to detach a wing only for Seroncha from one of the regiments stationed in the Northern Division, allowing the arrangements already made for Hoshangabad and Chanda to hold good.

"On this point it is only necessary for the Officiating Chief Commissioner to state that, while he considers a garrison necessary at Seroncha, and that if a smaller detachment than a wing cannot be allowed, then a wing should be stationed there, it would not, in his opinion, as previously reported,

be requisite, for local reasons, that Hoshangabad should be garrisoned by a larger force than a wing of a regiment. And what he would now solicit is, that a garrison be supplied for Seroncha from the Northern Division, and that if a smaller detachment than a wing cannot be allowed, then a wing be sent there from one of the stations of the Northern Division.

" (7) In regard to the observation in your letter with reference to the division into wings of two Native regiments, which has been already ordered in accordance with the Officiating Chief Commissioner's recommendations, the Officiating Chief Commissioner would desire to remark that, while this has been done in order to provide for the efficient defence of these provinces at points needing protection, the detachments which were formerly stationed at Damoh, Narsinghpur, and Betul have also, on the recommendation of the Officiating Chief Commissioner, been withdrawn. In regard to the limitation of the various garrisons to the bare strength which might be necessary for purposes of defence, the Officiating Chief Commissioner believes that this would be generally regulated according to the views of the Military Department. But the Chief Commissioner hopes he is correct in understanding his responsibility to be in pointing out the various localities which, so far as he might be able to judge, required means of military defence. And this view alone has guided him in the several recommendations which he has from time to time made. The general principle of those recommendations has been that there should be certain central military stations occupied in force partly on account of local, partly from strategical, reasons of a general or imperial kind. And that, besides these central garrisons, there should be smaller posts established at places at or near the frontier of these provinces where the necessity from prudential motives to have a military force at hand might exist. On these principles the central military cantonments of Kamptee, Jubbulpore, and Saugor are maintained; and the frontier posts of Hoshangabad, Chanda, and Sambalpur, supported by Raipur, have been either maintained or established under the Officiating Chief Commissioner's recommendations. It is on the same principle that he recommended the establishment of a garrison at Seroncha. And as it is in the Officiating Chief Commissioner's opinion certainly of equal importance as compared with the other frontier posts, he trusts that it may be sanctioned by His Excellency the Governor-General in Council."

18. There seems some *hiatus* in the correspondence; for the next letter in the file, (36), is No. 549, dated 3rd February 1864, from the Chief Commissioner to the Government of India in the Military Department, and has regard to the disturbances raised by Sorrunder Sahi in the Sambalpur district. The Sambalpur station had then been garrisoned by two companies from Cuttack; but these companies were fully occupied with guard and other duties at head-quarters, and could not, as was desired, accompany the district officer on a tour through the petty chieftaincies of Sambalpur. As such a tour seemed in itself desirable, the Brigadier Commanding the Nagpur Force, at the instance of the Chief Commissioner, ordered a company of infantry to proceed from Raipur to Sambalpur for this duty. The letter continued:—

" (7) Since then events have developed themselves still further in Sambalpur. Sorrunder Sahi and fourteen of his principal adherents have been arrested and sent to Raipur under a strong military escort; and for the time matters bear an improved appearance in the district. But the opinion of the local authorities points strongly to the advisability of the military force at Sambalpur consisting for some time to come of not less than four companies of Native infantry; and in this the Chief Commissioner concurs. The effect of the measures which have been carried out recently in Sambalpur is, it is true, repressive, and such as to strengthen, or to give hopes of still further strengthening, the hands of the local administration. But as it is possible that the surrounding Chiefs may be in some degree implicated in the designs of Sorrunder Sahi and his adherents, and as knowing this they may for some time to come remain in fear of ulterior measures being taken against themselves, it seems prudent to anticipate any reaction in the present tendency of affairs by strengthening the military garrison of Sambalpur, and maintaining it at such increased strength for a period of moderate duration, say at least one year.

" (8) Under this view the Chief Commissioner has, pending the orders of His Excellency the Viceroy and Governor-General in Council, requested the Brigadier-General Commanding the Nagpore Force to detach another company from Raipur to Sambalpur, in addition to the company already detached as noted above (paragraph 6).

" 9 I am now accordingly to submit, for the consideration of His Excellency the Viceroy and Governor-General in Council, the advisability of permitting the two companies thus detached from Raipur for service in the Sambalpur district to remain there as an addition to the existing garrison.

" (10) In conclusion, I am to observe that, as will be in the recollection of Government when the garrisoning of Sambalpur was first mooted, a year ago, it was decided that it would be better to garrison it by two companies from Cuttack than by a similar detachment from Raipur. If the Government should still be of opinion that a detachment should not be furnished from Raipur, then perhaps two additional companies could be furnished from the Northern Division of the Madras army. Or, if Government should accede to the proposal made in this office No. 5004B., dated 17th December 1863, for a wing of a Native infantry regiment to be sent from the Northern Division to garrison Seroncha, it might perhaps be a suitable plan to allow a full regiment being sent from the Northern Division to take the duties of both Seroncha and Chanda; the latter station being now garrisoned by a wing from Hoshangabad, which wing would then become available for Sambalpur, in lieu of making up to the quantity (?) of a wing by two companies from Hoshangabad and two companies from Raipur. There would thus be an accession of troops to the province. But perhaps, rather than injure the discipline of the troops by splitting up regiments into small detachments, it might seem to the Government better to adopt this course. It may, however, when considering this point, be remembered that the stationing of a wing from Hoshangabad at Chanda relieves the detachment of two companies of the Raipur regiment from that station, and therefore if the Government should sanction the proposal now made, and permit the two companies which have been provisionally detailed from Raipur to Sambalpur by the Brigadier-General Commanding the Nagpore Force to remain at Sambalpur, then matters will be, in point of discipline, no worse than before."

19. On the Chief Commissioner's proposal\* in regard to troops for garrisoning Chanda and Seroncha, the Government of India in the Military Department came to a decision in letter No. 153, dated

\* Paragraph 17 of this note.

6th February 1864, (40A) to the Government of Fort St. George. The decision was that, "whilst concurring generally in the opinion expressed by His Excellency the Commander-in-Chief and the Government of Madras as to the inexpediency of unnecessarily multiplying detachments of troops, the Right Hon'ble the Governor-General in Council is of opinion, after carefully considering the reasons adduced by the Chief Commissioner, Central Provinces, for the occupation of the place, and in view of the objections to the location in the Nagpur province of a fifth regiment or an additional wing, that it will be on the whole better to adopt the first suggestion, and divide the wing of Native infantry at first assigned to Chanda between that place and Seroncha."

Such being the orders in regard to the garrisoning of Chanda and Seroncha, the Government of India in letter No. 549, dated 18th February 1864, (38) to the Chief Commissioner, expressed its determination that the arrangement for completing the detachment at Sambalpur might be left to a wing of Native infantry from Cuttack.

20. The next letters in the file are connected with the provision of accommodation, &c., for the detachment posted to Seroncha; and their contents need not be further noticed.

21. In a letter No. 165, dated 10th October 1865, (No. 48) the Brigadier-General Commanding Nagpur Force enquired of the Chief Commissioner how long a military detachment would be required at Sambalpur, and if there was any objection to the men of the wing of the 11th Native Infantry under orders for that place taking their families with them. The reply was (No. 341, dated 17th October 1865, (49)) that the Officiating Chief Commissioner (Mr. Campbell) is of opinion that the military detachment should be located permanently at Sambalpur; and the men of 11th Native Infantry under orders for that station should therefore take their families with them.

22. Some uncertainty seemed still to exist as to whether the location of troops at Raipur and Sambalpur should be permanent; and the question was dealt with in the Madras Government Proceedings received with Fort St. George letter No. 4182, dated 11th November 1865. The following extract from the Controller of Military Accounts, Fort St. George, to the Secretary to Government, Military Department, puts the matter clearly. He requested "the sanction of Government to a wing being stationed permanently and without relief at Raipur and Sambalpur; also to a wing being stationed permanently at Hoshangabad and Chanda, the wing at the latter station furnishing the detachment of two companies at Seroncha; such detachment to be relieved every six months.

"These measures are recommended on the grounds that the necessity for a wing at Sambalpur and for detachments at Chanda and Seroncha is a permanent one, and that the distance from Raipur to Chanda and from Hoshangabad to Chanda and Seroncha are too great to admit of even annual relief of wings and detachments from regimental head-quarters."

The Governor of Madras in Council approved of the arrangements proposed in respect of Sambalpur and Chanda, but before issuing final orders forwarded the proceedings to the Government of India and to the Chief Commissioner. The Chief Commissioner briefly replied in letter No. 380, dated 28th November 1865, (51) that he considered the occupation of the stations of Chanda, Seroncha, and Raipur by military troops to be measures of permanent necessity.

23. The Government of India in the Military Department, in letter No. 109, \*dated 4th December 1865, to the Government of Fort St. George, (52), agreed to the arrangements in regard to Chanda and Seroncha, but said "a further communication will be made as regards Sambalpur when a reference has been made to the Chief Commissioner, Central Provinces"; and the Chief Commissioner was accordingly asked whether the arrangement sanctioned in letter No. 549, dated 18th February 1864, † should be continued, and if so, for what probable period.

24. The Inspector-General of Police, Central Provinces, Colonel Taylor, was then asked for an expression of his views regarding the need of troops at Raipur and Sambalpur; and he recorded a minute, No. 7515, dated 15th December 1868, (53), which is as follows:—

"Under existing arrangements there is an entire regiment of Native infantry at Raipur and a wing of a regiment at Sambalpur. The latter is furnished from Cuttack. The Commander-in-Chief of the Madras army proposes to withdraw the Cuttack troops from Sambalpur, and to replace them with a wing of the Raipur regiment. This arrangement would place an equal military force at Raipur and at Sambalpur. Considering the position and circumstances of the two districts, I certainly think that Raipur should have the strongest garrison. Raipur has a central gaol and treasury; Sambalpur has neither. Raipur has no police reserve. At Sambalpur there is a reserve which, under any circumstances of military occupation, must be maintained. At Raipur the jail and treasury guards are furnished by the military. If a wing of the regiment is withdrawn, these guards will have to be given by the police. And the present police force being quite inadequate for this duty, an increase will be required. At Sambalpur the lock-up guard is furnished by the military. If the Sambalpur detachment be reduced, this guard can be supplied by the police without any increase to their numbers.

"The circumstances of the Sambalpur district have materially altered since 1863, when the present garrison was placed there. From a state bordering on anarchy it has passed into one of profound quiet. During the last two years there has been less crime in Sambalpur than in any other district of the province. Crimes of violence have been almost unknown. Since the beginning of January 1864 there has been only one dacoity in the district; and murders have been very rare. Situated between Raipur and Cuttack, in the event of any serious disturbance Sambalpur could be reinforced simultaneously from both of these places.

"For the above reasons I think a permanent detachment of two companies would suffice for Sambalpur. This would leave six companies at Raipur—a force which would be sufficient for the ordinary requirements of the district. A detachment of two companies could be relieved every year, and thus the permanent division of a regiment, to which the military authorities have strong objections, would be obviated.

"As regards Chanda and Seroncha, there appears to be no good reason why Chanda should not be abandoned as a military station, and its detachment pushed on to Seroncha. This would give an entire



wing at the latter station. Chanda is only 100 miles from Nagpur; and there is a good metalled road by which troops could reach Chanda from Kamptee in four days. The adjoining districts of Berar are now occupied by Berar police, who have recently been reorganized; and there is probably as little crime in them as on our own side of the river. As a military position, Seroncha is of considerably greater importance; but as I stated my views fully in my memorandum forwarded with docket

\* Paragraph 15 *supra*.

No. 2233,\* dated 2nd September 1863, it seems unnecessary to say more upon this subject now."

25. The Chief Commissioner replied to the Military Department letter noted in paragraph 23 in letter No. 139-307, dated 16th January 1866, (56); and after referring to matters already described in this note, said in regard to Sambalpur:—

"He is now prepared to recommend that the permanent garrison should consist of an entire wing of a regiment. The experience of 1863 has shown Mr. Temple the extreme difficulty of sending reinforcements to this remote station during the rainy season—the period of the year when disturbances would probably occur if any were contemplated. This, coupled with the consideration of the unhealthiness of the climate and the proximity of troublesome neighbours, such as the Khonds and other homogeneous tribes, and the doubtful, though not actually disloyal, conduct of the Gurjhat States of late years, has led him to the conclusion that to ensure perfect safety the military force should not for the future be below a wing of a regiment.

"In the papers forwarded with the memorandum under reply, the Madras Government proposes to detach to Sambalpur a wing of the regiment stationed at Raipur, thus dividing the Raipur regiment between these two places. But the Chief Commissioner is not prepared to recommend that this arrangement should be carried out. Raipur is the head-quarters of the Commissioner of Chhattisgarh. It has a large central jail and a treasury. The nearest military station is Kamptee, at a distance of 200 miles. To the north and south there are immense tracts of country entirely without military posts. Although the Chief Commissioner does not apprehend any danger, still he is of opinion that to leave this large territory, comprising many thousand square miles, and occupied by so many independent and half-civilized States, and interspersed with tribes of uncertain temper, to the protection of so weak a force as the wing of a Native regiment would, both from a political and from a military point of view, be imprudent. Furthermore, in the event of any trouble arising in Sambalpur, or in the neighbouring States, Raipur would be *the only station from which reinforcements could be conveniently sent*. With this view a full regiment should be kept at Raipur. A wing would not suffice to afford any sufficient reinforcement. Moreover, it is to be borne in mind that, with the present low numbers of a battalion of Native infantry, a wing does not give any considerable force of effective men for active service. Mr. Temple therefore believes it to be really necessary that an entire regiment of Native infantry should be stationed as at present at Raipur, and that a wing from the regiment at Cuttack, or from any other station of the Madras presidency which may be more convenient, should be placed permanently at Sambalpur; and he trusts the Viceroy and Governor-General in Council will be pleased to accede to this proposal.

"By these means there will be just enough force at Sambalpur to hold our own for a time in case of trouble till reinforcements arrived, and just enough force at Raipur to afford such reinforcements. And this much of military force is essential for the security of British dominion in these parts.

"The arrangements for the location of troops at Chanda and Seroncha have been already sanctioned by the Government of India; and as they were made at the solicitation of the Chief Commissioner, and are entirely in accordance with his views, no further remarks seems to be necessary regarding them."

26. The Government of India accepted the Chief Commissioner's views; and in a letter No. 273, dated 8th February 1866, (57), to the Government of Fort St. George, Sambalpur was made a permanent station for a wing of Native infantry. His Excellency in Council also considered it desirable to have a regiment at Raipur, and requested that the wing for Sambalpur might be furnished from Cuttack or Berhampore, or from any other convenient place.

In Madras Proceedings dated 15th March 1866, (58), it was decided to provide the wing for Sumbulpore from the regiment at Cuttack.

27. Some years seem to have passed without any correspondence relating to the location or strength of military troops; and the next reference was in letter No. 146, dated 26th March 1868, (60), from the Brigadier-General Commanding Nagpur Force, in which, setting forth the arduous duties required of the 36th Native Infantry at Sitabaldi, he asked if the Chief Commissioner would "consent to the withdrawal altogether of the Seroncha detachment; or, should this course be found undesirable, if you have any objection to the reduction of the detachments both at Chanda and Seroncha to the strength of one company each." In reply (letter No. 1051-100, dated 4th April 1868, (60A)), it was said that both Chanda and Seroncha are such important political posts on the frontier, that Mr. Campbell would not wish to take on himself to abandon them, and would express a hope that the means may be found of maintaining them at their present strength."

The Brigadier-General thereupon, in letter No. 162, dated 8th April 1868, (61), offered the following suggestion:—

"1st.—That on the arrival of the left wing of the 11th Regiment Native Infantry at Raipur, expected there on or about the 14th instant, two companies of that regiment be ordered to Sitabaldi for duty.

"2nd.—Or that the detachment at Seroncha be relieved by one of a similar strength, to be furnished from the force stationed at Secunderabad."

In letter No. 1225-115, dated 20th April 1868, (62), the Chief Commissioner replied that he doubted whether, in the face of Sir R. Temple's strongly expressed opinion that a full regiment was required at Raipur, two companies should be moved from there to Seroncha; that the garrisoning of Seroncha by companies from Secunderabad seemed a question for the consideration of the Madras Government; and finally, the Chief Commissioner asked whether, for the present at least, the wing at Sitabaldi could not carry on the duties as heretofore.

28. It appears that the difficulty of garrisoning Seroncha by companies of the 36th Regiment stationed at Sitabaldi was referred by the Commander-in-Chief of the Madras Army to the Government of Fort St. George; and the Brigadier was directed to obtain the Chief Commissioner's opinion on two alternative proposals.

These proposals can best be gathered from paragraphs 3 and 4 of a letter from the Quarter-Master-General, Fort St. George, to the Secretary to Government in the Military Department, forwarded to the Chief Commissioner with the Brigadier's letter No. 233, dated 18th June 1868, (63) :—

"(3) It therefore appears to His Excellency that the best way of meeting the necessity will be to relieve the two companies of the 36th at Seroncha by two of the 11th from Raipur, the former rejoining regimental head-quarters at Sitabaldi, at which station, as well as at Raipur, there will then be the head-quarters and six companies of a regiment of Native infantry.

"(4) If this suggestion should not accord with the views of the Chief Commissioner, Central Provinces, and of the Government of India, the Commander-in-Chief would enquire whether the detachments at Chanda and Seroncha could not be reduced to one company each."

29. The Inspector-General of Police (Colonel Taylor) was then asked for his opinion; and in a  
\* (65). (demi-official) letter, dated 19th June 1868,\* he wrote :—

"I would deprecate the withdrawal of a single man from Raipur. In the event of any disturbance in Seroncha or amongst the Gurjats, a whole regiment would probably be required to reinforce Seroncha and keep open the road; and although Raipur is only 180 miles from Kamptee, at some seasons of the year there would be difficulty in sending troops there. Neither would I diminish the garrison of Seroncha, which I look upon as a valuable strategical point for the defence of the Central Provinces. My reasons are fully stated in a memorandum dated 15th August 1863, of which a copy is in your office. But I think the Chanda garrison might safely be reduced by one company. There is a good metalled road to Chanda now; the distance is only 100 miles. The district is bordered to some way beyond Chanda towards the south by Berar, which is administered by British officers. The police on the Berar side are organized in the same way as our own. I do not therefore consider Chanda as of much value as a defensive position, except in so far as it becomes a support for Seroncha; and, except for the purpose of a support, I don't think it would be worth while keeping troops there at all. Considering how easily and quickly it could be reinforced from Kamptee, if additional troops should ever be required there, I think one company would be quite sufficient for the garrison. The transfer of one company to Sitabaldi would give considerable relief to the Native troops."

The above views were generally accepted, and were expressed in letter No. 1933-197, dated 20th June 1868,† to the Officer Commanding the Nagpur Force.

† (66).

By division orders dated 23rd June 1868 (67), the garrison at Chanda was accordingly reduced to one company. The Officer Commanding the Nagpur Force then enquired whether the reduction of the Chanda garrison might be considered temporary or permanent; and was told that it was permanent.

30. In a letter No. 118, dated 8th January 1869, (71), the Officiating Commissioner, Nagpur Division (Lieutenant-Colonel Maclean), represented that the Deputy Commissioner of Chanda (Captain Lucie Smith) urged that the strength of the Chanda garrison should be restored to two companies; but the Officiating Commissioner did not himself support the proposal. The Deputy Commissioner said :—

"Chanda, it will be recollected, is only 4 miles from the Hyderabad frontier, while the nearest British force is 94 miles distant. The city is of considerable extent and of some wealth; and the Government treasury has not unfrequently between two and three lakhs of rupees (in cash and stamps) in store.

"It is not impossible that plundering bands in the Hyderabad side may be encouraged to attempt outrages along the British border, if not on Chanda itself, by the weakness of the garrison maintained; and as the pressure of duty at Sitabaldi, which necessitated the reduction, may now have ceased, I beg to recommend that the company withdrawn may be ordered back to Chanda."

The Chief Commissioner asked the Commissioner (Mr. Bernard) for his opinion; and it was given in letter No. 1351, dated 8th March 1869, (73). It is :—

"When the garrison for the Central Provinces and its distribution was settled by the late Chief Commissioner, it was (I believe) held that some military force equal to the wing of a regiment ought to be placed along our border between Dumagudiem and Warora. British territory marches with the Nizam's country for the whole of this distance, or about 220 miles. The whole of this border is somewhat remote from the head-quarters of the Hyderabad Government; and on one occasion at least within the last thirty years large bands of armed Arabs have appeared on our boundary and burnt one village before their own rulers could put any check upon them from Hyderabad. Twice at least during the past five years there have been rumours, with more or less of foundation, that armed bands were going to cross the Wardha and attack Chanda. These rumours were much credited by the Natives of these parts; and I am confident that they would be much oftener current if it were not for the Native infantry detachment. On the whole, I am myself of opinion that the decision was a wise one which placed a garrison at Chanda. I believe also that two companies is quite as small a body of men as could usefully be quartered at a place which is somewhat remote (at least six days) from support. If the Chanda detachment is to be of use in overawing evil-doers who might otherwise trouble our border, I think that two companies is not too large a force for the duty. This was the strength originally decided upon; and I think it should be allowed to remain.

"The temporary want of troops of Kamptee or Sitabaldi was (I believe) caused by the detachment of a regiment from these parts being sent to replace a corps which went to Abyssinia. As the ground for the withdrawal of one of the Chanda companies has ceased, perhaps the company might now be returned.

"I cannot say how far the quiet of the border will be affected by the death of the late Nizam. Most of us hope that under a strong regency at Hyderabad the Government will be at least as strong and as good as heretofore. But I certainly consider that, if ever the Hyderabad Government became

disorganized, or its hold upon its outlying subjects were weakened, Chanda is *the first* place where one should be liable to feel the ill effects of such disorganization."

On this letter there is the following endorsement\* by the Chief Commissioner: "No further orders at present. I may perhaps take the matter up again after talking it over with the Brigadier-General." As the file ends here,

\* 11th March 1869.

I do not think that the question was further pursued.

31. As far as I am aware, there has only been one occasion on which of late years troops have been called on to support the civil authorities; and the occasion was a disturbance in the Feudatory State of Bastar. It is unnecessary to notice the subject here, except for the purpose of quoting the remarks of the Deputy Commissioner of the Upper Godavery District regarding the military force. I take paragraph 44 of his letter No. 529, dated 22nd April 1876:—

"44. I take this opportunity of making a few remarks on the number and strength of the force at Seroncha. There are nominally two companies of the 8th Madras Native Infantry of the usual strength and 69 police. Of these, there are generally only about 8 or 10 men at head-quarters available on an emergency, three sowars, and two boy-orderlies. In cases of the kind that have just occurred, the regular troops must always be called out; and if at the same time any incursion was apprehended at any time from the Nizam's territory, which is just across the Pranhita river, our means of attack would be *nil* and those of defence but small. There is but one company of regular troops at Chanda; our nearest point, and should the whole of our two companies here be at any time required, Chanda could not send any support worth speaking about. I have felt greatly the want of mounted men; a body of 30 or 40 would have been invaluable. I should have reached Jugdulpore in six instead of ten days (excluding the one day that I halted to enable the support to reach me); and in the majority of risings among these wild tribes, who are greatly in fear of a horse, this force alone would probably have sufficed. I really think another company of regular troops should be stationed at Chanda, and the mounted and foot police of the Seroncha district strengthened."

† Paragraph 9, letter No. 2004-82, dated 29th May 1876. The Chief Commissioner thus noticed† this passage in the Deputy Commissioner's report:—

"With reference to paragraph 44 of your report, the Chief Commissioner will consider the question of locating a larger military force at Seroncha; but he thinks recent events show that Bastar is more easily accessible to troops from the Madras than from the Seroncha side, and a larger force at Seroncha might therefore be unnecessary."

The rising in Bastar was not very serious, and was characterized by almost a total absence of violence. It was certainly on that occasion shown that troops could reach Bastar more rapidly from the Madras side than from the Central Provinces, and no action was consequently taken in either strengthening the Chanda or Seroncha garrisons.

32. Leaving out of consideration the garrisons maintained at the large central stations of Kamp-tee (with Sitabaldi), Jubbulpore, and Saugor, which are matters for imperial rather than provincial discussion, this note shows that for outposts in the Central Provinces the following strength was after much discussion fixed:—

1. Raipur	...	One full regiment.
2. Sambalpur	...	One wing to be furnished from Cuttack or Berhampore.
3. Hosbangabad	...	One wing.
4. Chanda	...	Two companies.
5. Seroncha	...	Two companies.

It will have been noticed that by some arrangement not very clearly brought out in the papers from which this note is compiled the detachments for Chanda, &c., came to be furnished from Sitabaldi; but probably it will be accepted that the civil authorities are only concerned in that the fixed strength should be kept up at the several posts, and that it may be left to the military authorities to determine how the regiments can most suitably be divided.

33. As the Chief Commissioner may care to consult Commissioners of divisions on the proposals or enquiries made in the Quarter-Master-General's letter (paragraph 2), I have made this note a lengthy one, for the records show that the original distribution of troops was made without special reference to Commissioners.

(Sd.) LINDSAY NEILL,

The 14th May 1879.

Offy. Secretary to Chief Commr., Central Provinces.

No. 3470-184, dated Nagpur, 14th August 1879.

From—A. H. L. FRASER, Esq., Asst. Secy. to the Chief Commissioner, Central Provinces,

To—The President, Army Organization Commission.

With reference to paragraph 27 of the Chief Commissioner's reply to Military Department letter No. 205S.B., dated the 7th July last, I am directed to inform you that the Railway Volunteer Company of fifty-three members shown therein belongs to the Great Indian Peninsula Railway; and that the East Indian Railway has a separate company consisting of fifty men. This information has just come to hand, too late for incorporation in the reply already submitted.

## I.—MADRAS.

No. 4593, dated Ootacamund, 20th August 1879.

From—COLONEL J. MICHAEL, C.S.I., Secretary to the Government of Madras, Military Dept.,

To—The President, Army Organization Commission.

I am directed to forward copies of minutes by the several Members of this Government, replying to the questions raised in letter to this Department from the Secretary to the Government of India, Military Department, No. 204S.B., dated 7th July 1879.

2. The various points are briefly summarized hereunder in the order followed by the Government of India:—

- (a) Strength of Native population. (a) 31,556,993.  
 (b) Strength of European and Eurasian population (exclusive of army). (b) Europeans 14,505.  
 Eurasians 26,374.  
 (c) The bulk of the population is as loyal and well-disposed as can be expected of a conquered people. They recognize the British rule as the only possible one at present, and they recognize its general fairness and justice.

(c) State of feeling.

(d) Elements of danger. (d) 1st.—Religious fanaticism and feuds thereby caused.

2nd.—In the event of any European or Asiatic complications, which would range Christian and Muhammadan races on opposite sides, the Muhammadan population of Southern India would be naturally agitated, and might become turbulent or even hostile.

(e) Strength of police.

(e) 25,704.

(f) Distribution of police.

(f) Madras Town.	...	1,091
Northern Range	...	6,169
Central „	...	8,820
Southern „	...	9,609

But this includes police belonging to—

Salt Department	...	...	...	...	2,480
Jail guards	...	...	...	...	2,582
Land customs	...	...	...	...	195

5,257

which are not available for ordinary duty.

(g) Efficiency of police.

(g) Efficient for ordinary watching duty, but deficient in European officers and in strength, owing to reduction of the assignment in 1869.

(h) European and Eurasian population considered as—

(1) Strength in combatant power and for the maintenance of order.

(h) (1) Except in Bellary, Chingleput (including Madras), and Malabar (including the Nilgiris), the numbers are wholly insufficient to be of any use as a combatant power. In the above-named places their strength is being utilized by enrolment as volunteers.

(2) Weakness in necessity for provision of safety of non-combatants, women and children.

(2) The scantiness of this population, as above noted, prevents any necessity for provision of safety of non-combatants, women and children.

(3) Of possible greater utility than at present if organized for the maintenance of order in case of disturbance.

(3) The numbers are too small for organization, except the employés on railways, many of whom are enrolled as volunteers—the organization most suited to the classes in question.

(i) Question of compulsory enrolment.

(i) No compulsion is desirable.

(j) Development of volunteer system.

(j) Development desirable.

(a) Besides providing suitable garrisons for Madras and Bellary, not less than ten Native

The general military requirements of the province—

(a) for garrison purposes and the maintenance of order;

infantry regiments are necessary; and unless mounted police be established, two regiments of cavalry should be within the presidency proper, total sixteen infantry and two cavalry.

(b) This Government, not being cognizant of the internal circumstances and arrangements in

(b) for internal and external military purposes irrespective of (a).

the Mysore and Hyderabad territories, give no opinion on the force therein necessary, nor for Burma. As

regards Travancore and Cochin, the obligations are ruled by treaties in force, under which the payments for the stipulated forces are made.

### Minute by His Grace the President, dated 15th August 1879.

1. The answers to the Government of India's letter of the 7th July seem to me to be as follows:—

2. (a) Strength of Native population	...	...	...	31,556,993
(b) Strength of Europeans and Eurasians (exclusive of army)—				
Europeans	...	...	...	14,505
Eurasians	...	...	...	26,374
				40,879

I consider the large majority of the population passively loyal and contented. Speaking generally, I do not think that active support on the part of the people is to be looked for in the case of disturbance, except on the part of active and influential zemindars, &c. I think that there are a considerable number of Hindus who look for the time when they can dispense with foreign rule and rule their own

(c) State of feeling.

land. That even they, however, at present recognize the British rule as in the main a just one, and one which they would wish, for the time at least, to continue.

(d) Elements of danger.

I think these may be considered in two classes :—

1st.—Those essential to the nature of the population.

2nd.—Those caused by measures of administration.

As regards the first class, I consider religious fanaticism causing feuds between the diverse races and sects to be the greatest; next I would place the Muhammadan element in the event of European or Asiatic complications in which the Muhammadan and Christian races were opposed; and finally, the large numbers of the population who recognize only the law of might, and are ever ready to gather round the scene of any local disturbance in the hope of plunder.

In the second class, I place measures of excessive taxation, measures giving too arbitrary powers, arrest without warrant, &c., to inferior police officers, and unnecessary interference with established customs and habits of the people as regards their tenures, cultivation, grazing rights, and fuel supply, &c.

As regards dangers from excessive taxation, I mean not only danger from actual resistance to the payment of taxes imposed, but dangers resulting from the comparisons which increasing taxation and increasing abstraction of resulting revenue from the province already induces Natives to draw between States remaining under Native rule, such as Travancore and Cochin, and the portion under British Government, as also with Ceylon. Such comparisons are already made, and will no doubt tend to lessen the value of British rule in the eyes of the Hindus.

They see in Travancore and Cochin a large surplus realized and spent or accumulated and retained within the State. The people of the Madras presidency have but little connection or sympathy with the people of other provinces, and naturally view the presidency as a distinct province; they note, therefore, with feelings of marked discontent a large and an increasing proportion of the revenue raised therefrom taken away from the province.

This is a dangerous feeling to exist and to be allowed to grow. It must not be overlooked that the misrule which British authority superseded does not exercise the influence on the present generation which it did on a former one. Present evils or hardships are far more prominent in the minds of the people than the benefits of a settled Government, of which they have never noticed the want.

As regards dangers from measures giving too arbitrary powers, such as arrest without warrant, to subordinates who are far from control, and where trustworthy supervision is remote.—It is, of course, necessary that such power should exist and be exercised whenever criminals are found *flagrante delicto*; but to give it for suspicion and for minor offences is simply giving to the policeman a power of extortion which it will be impossible to check, and which will be for many years to come a means of cruel oppression.

The Forest Act VII of 1878 may be taken as an instance in which power is given to any police officer to arrest without warrant in effect any person whom he chooses to suspect of having been concerned in any forest offence he chooses to suppose may have been committed, *e.g.*, removing leaves, alleged carelessness by

a laborer in his employment in felling a tree so as to damage others in falling, taking honey from a wild bees' nest, &c. European supervision, the only one reliable to prevent extortion, is far too small to allow such powers with safety for the people.

Such powers are demoralizing to the police, and will be found dangerous to the Government. However many criminals may escape by necessary delay in getting a warrant, no greater confidence and support will, in my opinion, ever be given to the law, and to the police as guardians of the law, than by the sure knowledge of the people that, except *flagrante delicto*, no person can be arrested on suspicion of a criminal act without intervention of a magistrate.

As regards dangers from interference with established customs respecting cultivation, fuel, &c.—Customs which are bad or conduce to evil must be repressed or abolished, and the action will be approved by the bulk of the people. But customs which do no harm, but are simply at variance with our views of what is best, cannot be traversed without dissatisfaction and without creating sympathy, tending to discontent. If touched, they must be handled with the greatest care.

The abolition of village service inams; the trenching on hereditary tenure of offices; the too free resort (without due consideration of individual objections) to compulsory process to obtain land for what are deemed public purposes, have, I am convinced, exerted a prejudicial influence without benefit.

Forest interference as regards minor produce is an exceedingly dangerous matter. A restriction on supply of fuel or implement wood comes home to every individual—in fact, far more so to the poor than to the rich; and the poor are the most numerous class.

Restriction on cultivation within the forests affects every hillman and every jungle tribe; and unless the greatest care be exercised to secure ample supplies of fuel and implement wood, bamboos, &c., according to custom, and to appropriate ample cultivating grounds for all the forest tribes, suitable to their lives and customs, and for which there is ample scope without any inconvenience to Government rights or forest conservancy, I feel well assured that from such limitations, which amount to direct additional taxation, will follow impatience of restriction, disregard of the law, degenerating into lawlessness, mischievous destruction of the forest, and open, if not active, disaffection to the Government.

I consider these dangers far more to be apprehended than those in the first class.

(e) The strength of the police is ... .. 25,704

(f) Distributed as under—

	Area in miles.	Population.
Madras Town	...	1,091
Northern Range	40,917	6,752,295 : 6,169
Central „	49,959	10,004,726 : 8,820
Southern „	47,415	14,094,095 : 9,609

This force includes salt, jail, and land customs guards, being respectively—

2,450
2,582
195
5,257

The force is controlled by—

Supervising staff	...	...	...	...	2
Superintendents	...	...	...	...	21
Assistant superintendents	...	...	...	...	22
					45

(g) The force is deficient in European officers, and would be much improved in efficiency, reliability, and general conduct by an increase of this staff. The force is also deficient of mounted men for which no provision was made; and this want has been fully proved in the case of the Kurnool raids during the famine, in the present troubles in Rampa, as well as in the pursuit of the strong armed dacoit gangs which existed in Salem and Bellary in the last twelve months, and in other cases.

The force as it exists is efficient for ordinary constable's duty, but not fitted by habit, training, or disposition of the men for coping with armed resistance; nor has it sufficient numerical strength to maintain any reserves for prolonged extra duty or unusual sickness. Its efficiency appears to have been much impaired by the reduction of grant ordered in 1869.

(h) (1) The European and Eurasian population is too few to have any strength for combatant power, except in—

Bellary, Chingleput and Madras,	Nilgiris, and Malabar.	
In none of the districts of—		
Kurnool, Kistna, Cuddapah, Nellore South Arcot,	Canara, Ganjam, Coimbatore, Madura, Tinnevelly,	North Arcot, Trichinopoly, Vizagapatam, Tanjore, or Godavery,

do the number of Europeans of all ages and both sexes exceed 500. The Eurasian population similarly only exceeds 500 in the case of—

Tanjore	...	...	...	...	511
Trichinopoly	...	...	...	...	596
North Arcot	...	...	...	...	624
Vizagapatam	...	...	...	...	779
Nilgiris	...	...	...	...	789
Malabar	...	...	...	...	5,365
Bellary	...	...	...	...	951
Chingleput	...	...	...	...	1,537
Madras	...	...	...	...	11,852

Wherever this population exists, it will always enlist itself on the side of order.

(2) There does not appear to be any necessity to provide for safety of non-combatants.

(3) For the reasons above given, organization is not possible, except in the few districts named, in which many are enrolled as volunteers. Many also of those connected with railways in other districts are enrolled in Railway Volunteer Corps.

(i) I am of opinion no compulsion whatever should be attempted.

(j) I consider the volunteer system should be developed by encouragement and facility of drill and instruction, with effective European officers for each corps, and that volunteering in proper places, and under proper rules should be encouraged also amongst the Tamil and Telugu races, of whom mainly our army is composed, whenever offered.

3. (a) I consider that, besides the garrison of Madras, in which I include Palaveram, St. Thomas' Mount, and Vellore, and which I do not think ought to be less than—

Artillery	...	...	...	...	2 Batteries.
British Infantry	...	...	...	...	1 Regiment.
Native	...	...	...	...	4 Regiments.

and the garrison of Bellary not less than—

British Infantry	...	...	...	...	1 Regiment.
Native	...	...	...	...	2 Regiments.

the force for the maintenance of order should not be any thing less than ten regiments of Native infantry as at present organized; and that, unless the police be strengthened by mounted reserves, at least two regiments of cavalry or 600 troopers should be stationed within the presidency, one regiment in the Northern District, and one regiment in the Southern District.

Northern District:	{ Ganjam	...	...	...	
	{ Vizagapatam	...	...	...	
	{ Godavery	...	...	...	
	{ Kistna	...	...	...	
					3 Regiments.
Southern District	...	...	...	...	4 Regiments.
West Coast	...	...	...	...	3 "

(b) The treaty stipulations with Travancore and Cochin define the force we are bound and paid to maintain for those States. On the military requirements of Coorg, Mysore, and the Nizam's dominions, I here offer no opinion, it being dependent upon circumstances not wholly known to this Government.

*Minute by His Excellency the Commander-in-Chief on questions referred by the Government of India to the Government of Fort St. George, dated Ootacamund, 8th August 1879.*

I consider that the state of feeling of the people of this presidency generally may be described as one of passive contentment. They and their fathers before them have been born and bred under British rule; and so long as nothing be done by Government to arouse feelings of active discontent, they are not dissatisfied to remain as they are. Further, I apprehend that the proportion of low-caste people and Pariahs is large; whilst the proportion of Native Christians is greatly in excess of that to be found in the other presidencies.

(c) State of feeling.

2. Though the great mass of the people are ignorant of the history of their country, or of the means whereby British supremacy was established, they are aware that they have been for many generations a conquered race; and self-government is not thought of.

3. With all this ignorance, it is accepted that there is better security for life and property under the British Government than there was under previous rulers, or than could be expected were the British Government to be supplanted. In short, the strength and value of English law is understood by the people; and the more enlightened of them feel that they stand on an equality before the Courts, and that redress can be obtained for any injury.

4. The acts most likely to become elements of danger would be violent and uncalled-for interference on the part of Government with the religious usages or caste prejudices or customs of the people, or undue or vexatious taxation.

(d) Elements of danger.

5. Acts of the kind might cause such a general feeling of discontent as to make the population ready to take part in a general revolt; for, peaceably disposed as is the mass of the population of this presidency, there are thousands of men who are ripe for disorder, and who are willing to risk their liberty or their lives if they see a chance of indulging their evil propensities. This desperate class is, however, powerless to influence the people, so long as the mass are not hostile to the Government.

6. Disturbances of a serious nature have often occurred, owing to the blunders or malpractices of subordinate officials; but these have been local, and the ill-feeling has given way to measures of redress.

7. The Mahomedan population, from being a comparatively united body, and from the recollection that they at one period exercised considerable power in this presidency, and indeed all over India, may also be looked upon as an element of danger; though I consider that there is little chance of combined action on their part, so long as they are not stirred up to revolt by indiscretion on the part of Government.

8. It is the custom to give great importance in this presidency to the fanaticism of the Moplah population, but I cannot help thinking that this is done without sufficient cause; for I believe that most of the fanatical outbreaks which have taken place in the Malabar District have been more or less provoked by these people having found themselves unable to obtain redress for injuries such as would be resented by most men.

9. No doubt they can, when exasperated, become troublesome fanatics; but their fanaticism is generally the result of the selfish prejudices of the Nairs, amongst whom they live, and who will grant them no concession, however reasonable—such as a convenient site for a mosque or a burying-ground—which cannot be forced from them in a court of law. Even with these provocations, I believe I am right in saying that hardly ever more than a score of men have been found to band together to sell their lives.

10. No special element of danger seems to exist in the condition of any of the Native States included in the presidency, or in any combination of all of them; though the large number of armed men retained by the various Chiefs in the Nizam's dominions must always give cause for some anxiety as being an element for disorder.

11. This Native army, like any other mercenary army, may always become a source of danger to the State; but I do not believe that it will ever become so in this presidency, provided its rights are respected, and that it is maintained in a proper state of discipline.

12. The possible danger to India from an invasion by a European power calls for no particular remark as regards this presidency, except that should the army of another European power appear on the north-west frontier with the avowed intention of invading India, there can be no doubt that the mind of this Native army and of the people would be stirred up thereby, and that their conduct would be influenced by the result.

13. I think that the Madras police may be considered as fairly efficient for the work ordinarily required of them; but, like the police all over India, they need very careful supervision, or they are sure to oppress the population by various kinds of extortion.

Efficiency of police.

14. I consider, however, that no trust can be placed in the police, as now organized, for putting down armed resistance of a serious nature.

15. Judging by events which have occurred since I have been Commander-in-Chief, the number of police is not sufficient to do all the work to be expected of them; and further, I am of opinion that in some parts of the presidency it would be better to revert to the old semi-military force, termed "Sibandis." These men were of a better fighting class, and were sufficiently well armed and disciplined to meet armed insurrection.

16. The absence of any mounted police throughout the presidency is also a source of weakness; and, in my opinion, a body of the kind ought to be available for the protection of the people and for the suppression of disorder.

17. Up to the present time, the police have been well-officered by the officers of the army made supernumerary by the reductions carried out since 1857; but this source is now nearly dried up; and I question whether the army can be reckoned upon in the future to furnish officers for the police.

18. The European and Eurasian population of the presidency amounts to only 14,505 and (A) European and Eurasian population considered as strength in combatant power and for the maintenance of order. 26,374 respectively. They are principally located at the presidency, the larger military stations, and in the Nilgiris; but of this number, it may be considered that not more than 3,000 Europeans and 5,000 Eurasians are fit to bear arms.

19. Reliance is to be placed on the loyalty of both classes; and they could be depended upon to assist Government in the maintenance of order, more particularly those who have received some military training as volunteers.

20. In this presidency the danger of a general rising appears to me so improbable, that the (2) Weakness in necessity for provision of safety of non-combatants, women and children. contingency of having to provide special protection for non-combatants of European extraction need not, I think, be considered as a source of weakness, especially as (except in the hills, where the European element bears a much larger proportion to the Native population) the Europeans and Eurasians are principally located, as has been before stated, in the large stations. In the hill districts, the non-combatants would naturally find shelter at such centres as Ootacamund, Coonoor, Kotegherry, &c.

(3) Of possible greater utility than at present if organized for the maintenance of order in case of disturbance.

Present strength of volunteers in the Madras presidency:—

Officers	...	...	46
Non-commissioned officers	...	...	176
Volunteers	...	...	1,111
Total	...	...	1,333

21. Already a number of Eurasians and Europeans—about 16 per cent. of the adult male population—are trained as volunteers; and any measures which would tend to make popular the volunteer movement are strongly to be advocated, as giving strength to the Government.

22. It is not clear whether the question of compulsory enrolment is intended to apply only to Europeans and Eurasians, or to the general population; but, whatever its intended purport, in my opinion compulsion of any kind should be strictly avoided.

(i) Question of compulsory enrolment. 23. As regards Europeans and Eurasians, their services may always be counted upon, for they are as much interested in the preservation of peace as the Government itself; while any compulsory enrolment of Natives would be sure to defeat the object in view.

24. Every measure which would tend to develop the volunteer system is strongly to be advocated. The men are loyal, and are effective for all ordinary home duties; and, were they supported by Government more liberally than is at present the case, they would still be a very cheap auxiliary force.

(u) General military requirements of the presidency for garrison purposes and the maintenance of order. 25. In answering this question, it must be borne in mind that the civil and military limits of the Madras presidency are not coincident; and that the Madras army has had for many years past to furnish garrisons for provinces outside of the presidency proper, viz., for the Central Provinces, Bundelcund, Western Bengal, and British Burma. Further, the British Government is bound by treaty to maintain forces for the protection of the territories of His Highness the Nizam, the Maharaja of Mysore, and the Maharaja of Travancore; and these troops have invariably been furnished by the Madras army.

26. I will first deal with the Native infantry of the presidency as constituting the bulk of the army.

27. The accompanying comparative statement (marked A)\* shows the distribution of this branch as in operation for several years past, and also that which might be found to suffice in the future, having in view the very urgent demand now made for all possible reduction of military expenditure.

28. It will be seen that, by increasing the number of privates in each of the retained regiments from 600 to 800, the number of available privates is increased from 21,600 to 22,400, while the number of regiments is reduced from 36 to 23.†

29. The pecuniary saving effected by the reduction of the European and Native staff and of the Native officers of eight regiments, will be the main advantage to be gained by the change.

30. The total number of British officers‡ should, I think, remain the same as now; for the increase in the number of privates would seem to me to make it indispensable that the number of British officers per regiment should be increased from 7 to 9. As this increase would eventually be in the junior ranks, a considerable saving in pay and allowances would be the result in the future.

31. The number of non-commissioned officers in the augmented regiments ought, I think, to be increased from five havildars and five naiks per company to six havildars and six naiks: a total decrease of 96 of each rank would be the result.§

32. According to this distribution, five regiments are given to Burma; and, while the number of regiments will remain the same as at present, the strength of the troops garrisoning that province will be increased by a thousand privates.

33. For reasons which I explained to Government on a previous occasion, the regiments serving in Burma should be relieved every three years; and this tour of what is looked upon by the sepoys as a foreign service should not be imposed upon regiments at a less interval than fifteen years between each tour.

\* Vide my memorandum on the call made for a regiment to be sent to Cachar, forwarded with letter No. 2335, dated 30th March 1878, from the Quartermaster General.

† This statement does not include the regiments stationed in Bundelcund or in Western Bengal, except at Cuttack.

‡ This is exclusive of the troops in Bundelcund and Western Bengal.

§ 36 Regiments with 7 officers = 252  
28 " " 9 " = 252

§ 36 Regts. with 40 havildars each = 1,440  
28 " " 48 " " = 1,344

Decrease havildars ... 96  
Naiks the same.



34. As the plan now offered for consideration provides for the retention of only twenty-three

\* Statement A shows how the Native infantry would stand if the regiments required for presidential purposes were reduced from forty to thirty. regiments in the presidency and in India proper, it becomes necessary that two more regiments should be maintained to provide for the Burma relief; and this will therefore raise the number of regiments required from twenty-eight to thirty.\*

35. These two regiments might be stationed, as now, at Saugor and Jubbulpore, or, as I have elsewhere suggested,† in the Southern Mahratta Country or it might be possible for them to take the duties

† Vide my memorandum above quoted.

at Calcutta; but if this be done, they must be allowed to take their families with them and be provided with suitable lines, or be granted special allowances.

36. Further, one regiment of Madras Native infantry is now stationed at Dorunda, and another is divided between Banda and Nowgong. If these stations can be abandoned, or can be garrisoned by Bengal troops, the number of regiments of Madras infantry can, as above stated, be reduced to thirty. If, however, Madras infantry is to continue to furnish these garrisons, and also to continue to occupy some of the stations alluded to in the previous paragraph, I see no means of reducing the number of

‡ 40 × 600 = 24,000  
32 × 750 = 24,000  
30 × 800 = 24,000

regiments below thirty-two; but with that number of regiments, the number of privates for each of the thirty-two regiments‡ should be increased to 750, in-

stead of to 800.

37. The Madras sappers and miners should be allowed to remain as at present. They are a most useful body of men, and their services are always being required.

38. No reduction or redistribution of the Madras light cavalry seems to me to be practicable, unless Bengal troops are to occupy Saugor.

39. The reduction of a regiment would leave the whole of the presidency, including the Central Provinces, with only 900 Native troopers, inclusive of the Governor's Body-Guard; but this is not counting the cavalry of the Hyderabad Contingent.

40. As regards the British force in this presidency, I am unable to recommend any reduction.

41. I would propose, however, that the battery of artillery and the detachment of British infantry now located at Trichinopoly be withdrawn, that station being in future held by Native troops only. The field battery now at Trichinopoly might be replaced by a garrison battery, to be stationed at St. Thomas' Mount, when it would become available for coast defence duty, or for employment with the presidency siege train.

42. The field battery now at Thayetmyo should be replaced by a garrison battery with mountain equipment.

43. If this proposal be accepted, the garrison battery at Cannanore need not be replaced.

44. I find it difficult to draw any marked distinction between the "requirements of the province for garrison purposes and the maintenance of order," and its "requirements for internal military purposes"; but I consider that what I have already said

(b) Requirements for internal and external military purposes irrespective of (a).

refers to and meets our requirements under both these headings.

45. As regards the requirements of this province for external military purposes, I consider that, as the Madras army finds the ordinary garrison for British Burma, it ought always to be in a position to meet a call to reinforce that province. Only recently a demand was suddenly made on this army for a British regiment and two regiments of Native infantry, besides a wing of Madras Native infantry, which was sent from Calcutta.

46. Again, consequent on the war in Afghanistan, this army was called upon to furnish two batteries of Royal artillery, a battalion of British infantry, three companies of sappers, and three regiments of Native infantry for the North-West Frontier, besides two regiments to garrison Calcutta.

47. These troops were sent for imperial purposes; and provision for a possible similar demand in the future appears hardly to come within the meaning of *provincial* requirements.

48. I have therefore not considered this contingency in calculating the troops necessary for this presidency; still I wish it to be understood that if the strength of the Native infantry, irrespective of the numbers of regiments, remain as it is, the presidency may be counted upon to render the same aid in the future it has done on previous occasions.

49. At the same time, such a requirement ought always to be borne in mind, or considerable risk is likely to be run; for it is not to be believed that the Supreme Government would hesitate, if the necessity arose, to make a similar call—when, if this army be unduly reduced, compliance might endanger the peace, if not the security, of the presidency.

50. As a matter of fact, whilst Madras troops have been employed on the Afghan frontier, and subsequent to the sudden demand to reinforce Burma, a call has been made to suppress a rising within the limits of the presidency; and owing to the physical nature of the country, and its extreme unhealthiness, it has not been found easy to provide the required infantry from the Madras army.

51. In 1876 this Government was called upon to report what troops could be spared from Madras in case an army was required for a foreign expedition; and I then gave it as my opinion that a force as shown in the attached statement (marked B) could be furnished.

52. That estimate could hereafter hold good as regards Native troops, notwithstanding the reduction in the number of regiments which I have stated I consider possible, provided the number of privates in each regiment be increased to 800 or 750, according as the number of regiments is reduced to 30 or 32.

53. I have already brought to the notice of Government§ that the Native infantry of this

§ My memorandum forwarded with Adjutant General's letter No. 425, dated 28th July 1879.

presidency has not of late obtained the required number of suitable recruits; and as I have been given to believe that this is not the only presidency in which this is

found to be the case, the matter seems to me to be one which might with advantage be considered by the Commission about to sit at Simla.

54. I think I have now replied to all the questions referred to this Government by the Government of India; and it only remains for me to express the hope that, whatever conclusion may be arrived at, the necessity of preserving distinct the armies of the several presidencies may always be kept in view; and that if reductions must be carried out, this may be done, as far as practicable, proportionately in the several armies, and with due consideration for the grave individual interests which are involved.

OOTACAMUND; }  
The 8th August 1879. }

NEVILLE CHAMBERLAIN, *General,*

*Commander-in-Chief, Madras Army.*

A

Table of ordinary and proposed garrisons, Madras Presidency.

Districts.	Stations.	ORDINARY GARRISONS.			PROPOSED GARRISONS.		
		Regiments.	Strength in privates.	Total strength in privates in each division.	Regiments.	Strength in privates.	Total strength in privates in each division.
Southern District ...	Trichinopoly ...	3	1,800	3,000	2	1,600	2,400
	Palamcottah ...	1	600			400	
	Quilon ...	1	600			400	
Centre District ...	Madras ...	3	1,800	3,000	3	2,400	3,200
	Pallaveram ...	1	600			400	
	Vellore ...	1	600			400	
Mysore Division ...	Bangalore ...	2	1,200	2,400	2	1,600	2,400
	French Rocks ...	1	600			400	
	Mercara ...	1	600			400	
Malabar and Canara	Cannanore ...	2	1,200	1,800	1½	1,200	1,600
	Mangalore ...	1	600			400	
Ceded Districts ...	Bellary ...	2	1,200	1,200	2	1,600	1,600
Northern District ...	Vizagapatam ...	1	600	2,400	1	800	2,400
	Vizianagram ...	1	600			400	
	Cuttack ...	1	600			800	
	Berhampore ...	½	300			400	
	Sambalpur ...	½	300				
Hyderabad Subsidiary Force.	Secunderabad ...	4	2,400	2,400	3	2,400	2,400
Nagpore Force ...	Kamptee ...	1½	900	2,400	1	800	2,400
	Hoshungabad ...	1½	300			...	
	Sitabaldi ...	1	600			800	
	Raipur ...	1	600			400	
	Sambalpur ...	...	...			400	
British Burma Division.	Rangoon ...	1	600	3,000	1½	800	4,000
	Thayetmyo ...	1	600			1,200	
	Tonghoo ...	1½	900			1,200	
	Moulmein ...	½	300			400	
	Andamans ...	1	600			400	
		36	21,600	21,600	28	22,400	22,400
Saugor District ...	Jubbulpore ...	1	600	1,800	1	800	1,600
	Saugor ...	1	600			800	
	Banda ...	½	300			...	
	Nowgong ...	½	300			...	
Presidency District, Bengal.	Dorunda ...	1	600	600	...	...	...
		40	24,000	24,000	30	24,000	24,000

## B

In memorandum by His Excellency the Commander-in-Chief, No. 196, dated 3rd July 1876, and submitted to Government, it was stated that the Madras army will be able to furnish the undermentioned troops for service in Burma, provided of course that there be no unexpected internal disturbance to make it undesirable thus to reduce the troops in the presidency:—

	Men.
2 Regiments of British infantry .. .. .	1,200
6 Regiments of Native infantry ... .. .	8,600
2 Light field batteries Royal Artillery (12 guns) ... .. .	314
2 Companies of Sappers and Miners ... .. .	232
Total ... .. .	5,346

The above force gives two brigades, each composed of—

- 1 Light field battery, 6 guns.
- 1 Regiment of British infantry.
- 2 Regiments of Native infantry.
- 1 Company of Sappers and Miners.

The additional two Native infantry regiments may be considered as in reserve.

The proportion of guns is given at two per regiment.

A third light field battery or troop of horse artillery, or garrison battery, might possibly be spared on an emergency.

(Sd.) ST. V. A. HAMMICK, *Captain,*  
*Acting Military Secretary.*

#### *Minute upon the employment of a Regiment of Madras Native Infantry in Cachar.*

In the letter from the Quartermaster-General are shortly set forth the general objections to the employment of a Madras infantry regiment in Cachar; and to these I desire to state others which did not come within the scope of that communication, but which, in my opinion, call for full consideration.

2. This Native army has three kinds of duties ordinarily imposed upon it:—

I.—Service within the presidency—which may be considered as including the Nizam's dominions, the Mysore territory, and the province of Coorg.

II.—Service in other Provinces in India.

III.—Foreign service—under which heading is ordinarily included service, in British Burma and the Andamans.

3. *I. Service within the presidency.*—There are at present serving within the presidency two regiments of light cavalry and twenty-six regiments of infantry, or half of the cavalry and about three-fifths of the infantry.

4. Annexed is a comparative statement of the troops of the Madras presidency since 1837, at intervals of twenty years. I select these periods because 1837 was the end of the long peace which preceded the Afghan war, 1857 was the year of the mutiny, and during the last twenty years our whole military system in India has been reorganized.

5. It will be seen from this statement how large have been the reductions in the strength of this Native army, and the relative decrease of home service as compared to service outside the limits of the presidency. Since 1862 the regiments of cavalry have been reduced from seven to four (a), and the regiments of infantry from fifty-two to forty; or, in other words, the cavalry by nearly one-half, and the infantry by nearly one-fourth. In 1837 and in 1857, seven out of eight of the cavalry regiments were serving within the presidency; now two out of four are serving outside of the presidency.

• Nagpur force .. .. .	5
British Burma ... .. .	12
Singapore ... .. .	3

In 1837, forty-five regiments of Native infantry were serving within the presidency, and seven without. In 1857, thirty-two were serving within and twenty\* without. Now the proportion is twenty-six within to fourteen without.

6. It has to be remembered that from the regiments located within the presidency have to be met the demands for service in the other provinces of India and in Burma; and it cannot, I think, be expected that the Madras army should remain contented and efficient if the proportion of home service is only to be viewed as a fluctuating quantity, to be regulated by the necessities arising elsewhere.

(a) Note.—The 6th Light Cavalry was disbanded in 1857 for misconduct during the mutiny.

7. In 1857, this army had twelve of its battalions of infantry in Burma; the necessity may any day arise for largely increasing the present strength of that division.\* Without a reserve of regiments within the presidency, that demand could not be met; and it seems to me to be the duty of this Government in its desire to meet calls made upon it by other presidencies.

8. The physique of this Native army is far from being what it ought to be. The difficulty of obtaining suitable recruits for the infantry has been forcibly brought to my notice by almost every commanding officer I have come into contact with; and I lately felt myself called upon to publish a General Order prohibiting the enlistment of youths physically unfit to discharge the duties of a soldier. Such men are useless on field service; whilst with ordinary cantonment duties, they, in middle life, become a burthen upon the pension establishment. One of the causes assigned for the difficulty in recruiting from amongst the rural population is the loss of popularity of army service. This is said to

Regiment	Years
2nd Light Cavalry	6 years.
3rd "	16 "
5th Native Infantry	6 "
8th "	5 "
11th "	11 "
20th "	10 "
22nd "	6 "
31st "	5 "
35th "	6 "

proceed partly because of the greatly increased proportion of foreign and Bengal to home service, and the long periods some regiments are kept out of their own presidency.† The Native army can only be kept efficient by drawing to its ranks an unfailing supply of the pick of the village lads; and whatever deters them from accepting military service is, to my mind, a subject worthy of the serious consideration of Government.

9. As some persons measure the efficiency and utility of the Madras army by comparing it with that of Bengal, I here say most distinctly that, do what we may, the Madras sepoy can never attain to the Bengal standard; whilst I believe it to be equally certain that the men of Southern India fall far short, as a race, in possessing the courage and military instincts of the men of Northern India. But I do believe that now, as heretofore, the Madras, properly selected and commanded, can be made into a very serviceable soldier; and further, I am convinced that, for many obvious reasons, no greater blunder could be committed than to allow him to lose his place in the military organization by which this empire is held, merely to let in a better man. Our homely adage of not trusting all our eggs in one basket ought ever to be borne in mind by the Government.

10. *II. Service in other provinces in India.*—The strength of this Native army has admittedly been regulated with reference to its partial employment in other provinces of India; but there are reasons why this system cannot be strained without injury to the army.

11. In 1837, out of an establishment

	Native cavalry.	Native infantry.
‡ Nagpur	1	4
Moulmein	...	1
Straits	...	2

§ In the same year the regiments serving in Burma show an increase from one to twelve, and in the Straits from two to three.

|| One at Dorunda, one at Cuttack. The latter station has since 1803 been frequently held by Madras troops, though it is really in Bengal proper.

of infantry. To fully appreciate the change wrought since 1837 in regard to the relative proportion of service within and without the presidency, it has to be remembered that in that year the only call for foreign service was one regiment at Moulmein and two in the Straits, and that, except the above and the regiments serving in the Nagpur territories, the whole Madras army was cantoned near the homes of the men within the presidency.

12. In fairness to this army, and having regard to its efficiency, its service out of the presidency ought, I think, to bear some proportion to that exacted from the armies of the other presidencies. To the Bengal army, service in Bengal proper has always been considered by the men as coming under the head of service in other provinces, and has always been distasteful to them; but there has been little of it, and regiments have been regularly relieved. In that army there is no ordinary foreign service. The Bombay army has Sind as its outlying field of service, with Aden as foreign service. The Madras army has a large proportion of outlying service; and five regiments of infantry always in the British Burma Division.

13. I have already alluded to the long time our regiments remain at stations in the Central Provinces, &c., &c. This, I believe, partly originated to save Government the heavy expense of a move, and partly because the men are so overwhelmed by their numerous relatives and hangers-on, that the order to march is known to every one in the presidency to carry with it the impoverishment of the regiment. However, if this army is to be considered mobile, the difficulty must be met; and I have instituted inquiries in view to the possible restriction of families. But the measure is a delicate one, needing careful handling; and to produce any lasting effect the Native officers and soldiers must themselves be taught to see that the object in view is for their own good. In my opinion, five years is the maximum limit which any regiment should be allowed to remain at one station. As matters now stand, there is the greatest difficulty in recruiting; whilst, to the injury of officers and men alike, single regiments and detachments are lost to sight, except for a few days during the annual inspection.

14. As regards the matter of cost of a Madras regiment when employed out of its own presidency, there seems to me room to doubt whether the financial result has ever been fully estimated.

Government has to pay the fare of the wives and children, as well as of the men, when moved by rail; if the regiment marches, the difference between actual cost and old rates of cart-hire. The regimental lines are far more costly than those of a Bengal regiment; whilst the lines of a Bengal regiment will not suit a Madras regiment, nor *vice versa*. Further, the compensation for the difference in the price of rations must be a considerable item; for it is calculated upon the Madras articles of food, whilst the men generally live upon the grain of the country.\* Lastly, the clothing and equipment are furnished from Madras.

15. At the same time, my review of the conditions of such service would not be complete were I to omit to say that, but for the comparative cheapness of living (in ordinary years) in the Central Provinces, &c., &c., and the other advantages now derived by the men, a disinclination on the part of the sepoys for such service—which is not now the case—would probably be evinced.

16. No one can, I think, look at the disposition map of the Madras army without being struck by the anomalous distribution of its regiments. By degrees, to meet pressing calls, corps and detachments have been thrust into the Bengal presidency, until in the north they approach to Allahabad, and in the east stretch away to Chota Nagpore and Cuttack. Practically speaking, this is repeating on a small scale, but with less inflammable material, what was done with the Bengal army after the large annexations by Lord Dalhousie. Such a course seems to me hurtful to the interests of the State, as being likely to engender the notion of our being too largely dependent upon this Native army; whilst it is certainly injurious to discipline and military efficiency.

17. The request now comes to send another regiment of infantry to Cachar (to enable a Bengal regiment to be stationed in reserve at Jhelum), consequent upon the advance of one regiment to Quetta and the employment of another in the Simla hills. Speaking on behalf of the interests of this army, I feel called on to oppose the measure, not only on the general grounds already stated, but for other special reasons. Service in that province will be most unpopular. It will possess all the disadvantages of service in Burma without any of its advantages. I presume that no distinction is intended to be made as regards emoluments between service to the north-east of Calcutta at Cachar and service to the west of Calcutta at Dorunda. Unless it be so, the regiment must be accompanied by its families; suitable lines must be built; and the regiment can only be moved there at the commencement of the dry season, so as to be housed by the setting in of the rains. If the regiment is to be moved without its families, free quarters and rations, &c., must be furnished, as in Burma; but I do not see how this could be done without instituting a dangerous precedent as regards this army, and also creating an invidious distinction with respect to the Bengal regiments cantoned in that neighbourhood.

18. Rather than send a Madras regiment to be cantoned in a remote corner of the north-eastern frontier of Bengal, I would urge that this presidency occupy one of the southern stations of the Bombay army, whilst that army sends a regiment to occupy one of the southern stations of the Bengal presidency.

19. This suggestion leads up to the much larger one involving a partial redistribution of the Madras army and the Madras command. According to present arrangements, the regiments stationed at the places named in the margin are not in any way under the direct command of the Commander-in-Chief of this presidency; whilst to reach Kamptee and the other stations occupied by regiments under his immediate control, much of the Bombay presidency has to be traversed. It would appear to me less of an inversion

<i>Bengal Presidency Division.</i>	
Dorunda.	
<i>Saugor District.</i>	
Jubbulpore.	Banda.
Saugor.	Nowgong.

of things to allow the Madras Native regiments to occupy Sholapur and all the stations south of that place, and transfer to Bombay, Kamptee, Jubbulpore, and all stations to its north. If such change be deemed advisable by this Government, I would suggest that the subject be referred to in the letter transmitting our reply to the Secretary to the Government of India.

20. *III. Foreign service.*—I have said that service in Burma and at the Andamans is what is considered in this presidency as foreign service. The men are housed and liberally rationed; and the widows of those who die whilst thus employed receive pensions. Before the regiment embarks, the families are either sent to their homes in the country, or to a depôt formed at some suitable station: this is done at the public expense. Family tickets are given by the men to their families for such portion of their pay as they may desire. The period of such service is limited to three years, when the regiment returns to the presidency. For this duty the roster is kept as carefully as practicable; and from fifteen to seventeen years may be accepted as the time now intervening before the turn of a regiment comes round again.

21. There is no disinclination on the part of the men to embark on such service. They live well, besides saving some of their pay. A regiment returning from such service is proverbially in much better physique than when embarking. All that is needed with regard to such service is to bear in mind that the tour must not be made to come round too quickly. I believe fifteen years would be the safest average; but under no circumstances ought it to be less than twelve years. To preserve this ratio, of course the regiments in the presidency must be in relative proportion to those in Burma. Provided that attention be paid to this point, and that the three years' tour be not exceeded, I believe the Madras infantry soldier will always be found ready to obey the call to embark.

22. In conclusion, I regret the delay that has occurred in my taking up this case; but press of current work and other urgent calls have been the cause.

HEAD-QUARTERS, OOTACAMUND; }  
The 30th May 1878.

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

## Comparative statement of troops of Madras Presidency in 1837, 1857 and 1877.

	1837.		1857.		1877.	
	Native cavalry.	Native infantry.	Native cavalry.	Native infantry.	Native cavalry.	Native infantry.
Northern District	...	14	...	7	...	4
Centre District	2	6	1	4	...	5
Southern District	1	6	1	6	...	5
Mysore Division	1	6	1	4	...	4
Malabar and Canara	...	3	...	4	...	3
Ceded Districts	1	3	1	2	1	2
Hyderabad Subsidiary Force	2	7	2	5	1	4
Nagpur Force	1	4	1	5	1	4
British Burma Division	...	1	...	12	...	5
Saugor District	...	...	...	...	1	3
Bengal Presidency	...	...	...	...	...	1
Singapore, &c.	...	2	...	3	...	...
Bombay Presidency	...	...	1	...	...	...
Total	8	52	8	52	4	40

(Sd.) GODFREY CLERK, Colonel,  
Military Secretary.

No. 2335, dated Madras, 30th March 1878.

From—BRIGADIER-GENERAL H. O'CONNELL, Quartermaster-General, Madras Army,  
To—The Secretary to the Government of Madras, Military Department.

With reference to correspondence from the Government of India, referred to the Commander-in-Chief under your No. 1615 of the 28th instant, I have the honor by order to state that a regiment of Native infantry can be spared from the Madras presidency; but His Excellency the Commander-in-Chief considers that, before ordering one to Cachar, the objections to such a move should be fully represented and carefully considered.

2. Regiments of this presidency have their families with them, except on foreign service. If separated from them, the ordinary pay of the men is not sufficient to maintain themselves and their families. It will be necessary therefore that a regiment proceeding to Cachar should be accompanied by its families. The cost to Government of moving the large number of women and children will be great; and in addition suitable hutting lines will have to be provided at Cachar. The climate there is so unlike that of the Madras presidency, that there will probably be much sickness. Men will be granted sick certificate to their homes, and must take their families with them. The widows and children of those who die at Cachar will have to be sent back to the presidency at considerable cost. All this will cause much suffering and discontent, which, in the opinion of Sir Neville Chamberlain, may be avoided by a more judicious distribution of our Native troops in the three presidencies.

3. At present the Madras army has one regiment of Native cavalry and four of Native infantry serving out of the Madras Command—in the Saugor district and at Dorunda. Whilst these regiments are at long distances from their own presidency, the Bombay army has troops far to the southward, in the Belgaum district, which is close to the homes of the Madras sepoy.

4. It was the intention of Sir Neville Chamberlain to prepare this summer a scheme, for submission to Government, on the redistribution of the Madras army, and he hopes still to do so. The present proposal has led to his views on the subject being now partially and briefly stated.

5. For active or foreign service, the Madras sepoy is ready and willing to go anywhere. He knows that during his absence his family is comfortable; for the rations and allowances granted are sufficient to provide for himself and family. He therefore willingly proceeds wherever he is ordered.

6. But it is different when, merely to garrison a place out of their own presidency, men are sent to an unknown and remote corner in Bengal, where the language, climate, and customs are strange, and where there is not the excitement of active service to occupy their minds. They then brood over the discomforts around them, and are unable to comprehend why they are thus expatriated.

7. In arranging our peace garrisons, His Excellency considers it is wise policy to keep troops near their homes and among their own people; and he is strongly of opinion that both for political and military reasons our three Native armies should be kept distinct.

8. His Excellency the Commander-in-Chief thinks that his views on this subject should be placed before the Government of India for consideration; for he is of opinion that a much larger question than the mere move of a regiment is involved.

9. If it is still deemed necessary to call for a regiment of Madras Native infantry to be placed at Cachar, His Excellency would name the 19th Regiment Native Infantry, now at Trichinopoly. A regiment can best be spared from Trichinopoly. The 14th Regiment Native Infantry, which it was proposed to move next season from Vellore to Trichinopoly, can be sent to Cannanore in place of the 19th Native Infantry, which was put down for Cannanore. The force at Trichinopoly will then be reduced from three to two regiments of Native infantry.

*Minute by the Honorable W. HUDLESTON,—dated August 1879.*

*Army Organization.*—The Government of India ask for our opinion as to the military requirements of this Government in reference to—  
From Government of India, 7th July 1879.

necessary garrisons,  
the immediate repression of internal disturbance or insurrection,  
and the maintenance of order;

and detail the several points to which attention is requested.

*Population.*—The Native population is probably now about thirty-one millions, allowing for loss by the recent famine mortality; and among them are scattered a European and Eurasian population of less than half a million, resident almost entirely in the large towns and at the hill stations.

The Government of India ask opinions as to these last as an element of strength in regard to the aid they could give in the maintenance of order now, or if organized, and as to the element of weakness from their non-combatant section; and suggest the question of compulsory enrolment for consideration.

I think there can be no doubt whatever that the European and Eurasian population do constitute an element of strength, so far as their effective numbers go, and in far larger proportion than their comparative numbers represent. As an aid in actual combatant strength, there can, I think, be no question that organization would add to their efficiency without objection, and that every possible encouragement should be offered for this end. Compulsory enrolment would, I think, be resented, except in case of palpable emergency, when it would be needless; for the inclination of all would be to proffer services. Previous training would, of course, render this infinitely more valuable, and would be attained by enrolment as volunteers in time of peace; but the interest in volunteer service needs to be fostered, if it is to be active, and every encouragement should be afforded by Government. There is not in this country the wealthy and leisurely section of society which does so much in England to promote the success of the movement; and all taking part in it have to make considerable sacrifice of time and convenience in this country, which deserves ample recognition.

The disposition which has in places been manifested by sections of the non-European or Eurasian community (*e.g.*, Parsis and some of the West Coast Natives) to take part in the movement is a somewhat difficult feature. I am averse from its repression absolutely, though I recognize the difficulties that it may produce. On the whole, I doubt whether it can be usefully developed.

The non-combatant section of the European and Eurasian community do not, in my opinion, constitute any exceptional element of weakness, situated as they are.

In all cases, their protection is one of the main purposes of the combatant section of the community; and I think that under our circumstances in this presidency there is no exceptional difficulty on this score in the particular section of the population.

As to the organized force of police and troops required for our needs within the presidency, I think that, excluding Mysore and Coorg (and of course Hyderabad territory), but including Travancore and Cochin, a force of about fourteen Native regiments is needed for garrison purposes, the maintenance of order, and prompt repression of disorder. We

	Regts.
Southern Division, including Travancore and Cochin	3
Centre Division (Madras, Palavaram, Vellore, &c.)	4
Malabar and Canara	2
Ceded Districts	2
Northern Division (including Sambalpur)	3
	14

have treaty obligations with Travancore and Cochin, which certainly have not resulted in excessive demands, but must be observed. We have a considerable tract of country on the north-east and north-west coasts which is not very accessible; and altogether we have an area of about 140,000 square miles to garrison.

At the present moment we are experiencing a certain amount of difficulty in providing the troops needed for asserting the authority of Government against a somewhat numerous body of insurgents with whom the police were unable to cope; the circumstances being aggravated by the season and the extremely unhealthy character of the locality.

I have concurred in the suggested removal of European troops from Trichinopoly. I think this Government are unanimous in thinking that in the Northern Division too wide an area has been denuded of military force by the measures of concentration which were adopted a few years back.

Our force of mounted Native troops in the presidency has, I think, been reduced below what is desirable for purposes of effective administration. Of four regiments which constitute the entire force of Madras cavalry, we cannot count on having more than one within the presidency, and not certainly on that.

We have had to look to the Governor's small Body-guard as a resource for purposes for which it was never intended, and for which we should be independent of it.

I offer no remarks on the distribution of the Madras Native army beyond our own presidency, or on the strength proper to be maintained for the garrisons in other provinces and foreign territory (Native) and over-sea which are supplied from it, except that this strength should be adequate to ensure reliefs sufficiently often to prevent the foreign and over-sea service which falls exceptionally on the Madras army from becoming seriously burdensome on the men, involving as it does separation from their families for prolonged periods. Only I would strongly urge on consideration the ready loyal willingness with which the Madras troops have ever proceeded on any duty that has been required of them, the fidelity that they have exhibited under most trying circumstances, their orderly conduct and good discipline, their proved effectiveness whenever tried; and all this notwithstanding their experience of a somewhat marked measure of neglect and of scant justice. That most effective service can be relied on from Madras Natives the reputation of the Madras sappers furnishes irrefragable proof. There is no reason whatever why equally high reputation should not be earned by all the Madras Native army if fair opportunity be allowed to them. That it is eminently desirable on political grounds to have our Native Indian army recruited in due proportions from all the varying nationalities embraced in the empire, and that these several elements should be kept distinct, does not to my mind admit of question, on positive as well as negative grounds. The extreme importance of this last requirement has been urged repeatedly by the highest and most experienced authorities, from the Duke of Wellington downwards.

The other instrument in the hands of Government for maintaining order and authority is the police, which on 31st March 1879 numbered under 27,000 rank and file, composed of—

Constabulary (including village police)	...	...	...	20,491
Madras town police	...	...	...	1,222
Salt preventive force	...	...	...	2,480
Land customs force	...	...	...	195
Jail guards	...	...	...	2,582
				26,970

The proportion of police proper to population was 1 to 1,487. (In towns 1 to 536, in rural parts 1 to 1,637.) The proportion to area was 1 to 5 square miles. The population with which this force has to deal may, I think, be generally described as an orderly and law-abiding one.

Of exceptional elements of danger or difficulty there are few. The religious antagonism of the Nairs and Moplahs of Malabar is dangerous to one another rather than to Government authority. It is aggravated by the proverbial bigotry of converts on the side of the Moplahs, who are largely composed of converts from the lowest section of Hindus in the province and of their descendants, and by the inflated religious pride and exclusiveness of the Nairs, who are also generally in the position of hard landlords to the agricultural section of the Moplahs. The periodical and fatal outbreaks which have occurred in past years have seldom been suppressed without the use of troops. The Lubby element in the population of the presidency is disorderly, but absorbed in money-making pursuits, greedy, and prosperous, and not likely to risk their opportunities of gain for any political object. The Mahomedans are naturally no more contented with their reduced position here than elsewhere in India; but while they are here probably more reduced, and at least equally dissatisfied, they are also more scattered and in smaller proportion to the rest of the population (under 2 millions out of 31½ millions by last census), and generally of less politically dangerous antecedents probably than in other provinces.

The Brahmin element here, as elsewhere, is the most able and ambitious, but is probably also the most competent to appreciate the advantages of British rule to themselves at least as much as to any other section of the community.

The comparatively large element of Native Christians in the population of the presidency is on the side of order.

The number of great towns, with their invariably large element of criminal and dangerous classes, is comparatively small.

The bulk of the population are, I think, fairly satisfied with the administration under which they live, and recognize in their rulers the best intentions at least to promote their well-being. Of active self-sacrificing loyal effort to uphold the Government, a foreign administration has no right to expect much from the indigenous population. That exceptionally little of patriotic effort is to be expected from the bulk of the population of India is notorious; but at the same time little of combined hostile action need be feared by a Government which strives intelligently to attain the object of good government. While material comfort is experienced by them, we need not anticipate any hostile feeling towards the Government on the part of the great bulk of the population of this presidency. We need only to abstain from oppressive or inconsiderate measures of administration; but from these we must carefully abstain, and we must guard ourselves from tendencies to force them on us from elsewhere. If we, at the same time, afford fair openings for reasonable ambition to rise, I think we may rely in this presidency on ruling over contented, though subject, races for a long time to come.

If this estimate of the position is fairly correct, it may be inferred that the police have no very difficult task to maintain order and security for life and property. Nor indeed do facts oppose the inference. Of organized lawlessness, there is very little as a rule. The abominable crime of dacoity, with its attendant cruelties and horrors, has been greatly reduced of late years. The murder of children for the sake of their jewels is painfully prevalent, but is a cowardly base form of crime, which is encouraged by the habits of the people, and can scarcely be said to involve lawless proclivities. Cattle thefts are seldom perpetrated with violence. In murders other than those of children for their ornaments, jealousy is the leading cause. Nothing of this offers any serious obstacle to the police; and there is reason to think that they are fairly efficient and not unacceptable to the people as a body. That they are capable of improvement as individuals is unquestionable; but I believe that abuse of authority has decidedly decreased of late years.

I am however compelled to admit that, in my opinion, the police administration of this presidency is not as good as it ought to be, or as it would have been, had the principles on which it was so ably organized by Sir W. Robinson been maintained in full force, or allowed their natural development. The great defect is inadequate strength, being the inevitable consequence of the limited means placed at the disposal of the Local Government for the maintenance of the force.

It is now some twenty years since it was organized, and in that time there has necessarily been a considerable increase of population; and the developed working of the department in all directions should naturally have led to some increase of force, even if improved efficiency in individuals had rendered the units composing it more valuable for its purpose. The facts are, however, as shown in the margin; and this notwithstanding that in the interval the army has

1862-68, Constabulary, including village police	...	80,738
1878-79, Constabulary, including village police	...	20,491

been materially reduced in strength.

The result is as might be expected. The men are over-worked, and discipline necessarily suffers. The reserves have been reduced till the force is inadequate to deal with an emergency. The reputation of the force suffers, and with it *esprit de corps* must be lost.



A further very serious difficulty results from the very reduced supply of military officers available and suitable for employment in the force. It has from the first been a leading principle in the force that it should not be allowed to acquire a semi-military character, but still the previous military experience of the original officers enabled them to establish and insist on a standard of discipline and efficiency which officers without that experience are not likely to aim at or attain.

In 1863-64 it was 1 in 1,084.  
In 1864-65 " 1 in 1,187.

As above stated, the force on 31st March 1879 was in the proportion of 1 to 1,487 population.

By the latest return at my disposal, I find that in 1877 the proportion in other provinces was—

Bombay	...	...	...	...	1 in 950
North-Western Provinces and Oudh	...	...	...	...	1 in 1,261
Punjab	...	...	...	...	1 in 1,159
Central Provinces	...	...	...	...	1 in 941
Mysore	...	...	...	...	1 in 1,000
All India	...	...	...	...	1 in 1,096

Thus it may be said that Madras has only about two-thirds of the proportion of police to population that is deemed necessary on the average of India.

The charges against Madras for the service was thirty-six-and-a-half lakhs of rupees (exclusive of the village police).

In 1862-63, before the decentralization system of administration was adopted, under which some thirty-two lakhs net was assigned to Madras for this purpose from imperial revenues, the necessary provision for police in Madras was fixed by the Supreme Government at thirty-nine lakhs.

If it be argued that the necessary inference is that Madras should spend more on her police, I can only reply that Madras already spends on it more than she can afford out of the provincial assignment from imperial revenues for transferred services, and that if a more adequate police force is to be maintained, a more adequate grant must be made from imperial revenues. The Local Government has already, by recent legislation, imposed a considerable percentage of the charge for town police on municipalities, and cannot do more in this direction.

That a stronger force is needed for the effectual attainment of the object, and to allow legitimately of economy in the direction of military expenditure, does not, I think, admit of doubt.

(Sd.) W. HUDLESTON.

*Minute by the Honorable D. F. CARMICHAEL,—dated 9th August 1879.*

Letter from Government of India, Military, No. 204 S.B., dated 7th July 1879.

The Madras army consists (1st July) of—

- (a) 2 Regiments British Cavalry.
- (b) 19 Batteries Artillery.
- (c) 1 Company British Engineers.
- (d) 10 Regiments British Infantry.
- (e) 10 Companies Native Sappers.
- (f) 4 Regiments Native Cavalry.
- (g) 40 Regiments Native Infantry.

The numbers are, by the last return (1st April 1878) at hand, British 11,613, Native 31,292. All but an insignificant portion of this force is serving outside the territorial limits of this presidency, viz., in Mysore, Hyderabad, Nagpur, Saugor, Bengal, and British Burma. Within the presidency, we have no British cavalry, two regiments and three companies only of British infantry, four batteries, one regiment Native cavalry, and thirteen and a half regiments of Native infantry. The presidency area is 140,000 square miles, its population 31½ millions; besides Native States containing about 10,000 square miles, with a population of 3 millions. The state of feeling towards the Government and the elements of danger may be gauged by these figures: The general feeling is loyal, and the elements of danger next to nothing. Just now, in a remote and mountainous tract of country, where, owing to the crass negligence of local officials, injustice and oppression have run their length unchecked, the wild tribes have murdered policemen, burnt the stations, and are now carrying on a guerilla war with a detachment of troops; but this is an isolated case; it is not that the hillmen have revolted against our administration, rather they have not known it. When order is restored, and British authority made accessible to them, these people will soon be as contented with our system as the wilder tribes of Jeypore and Khondistan have long since become.

As to the efficiency of our police, it never was intended—and every approach to the contrary on the part of their officers has been rigidly suppressed—to have in any quarter of it a military or semi-military organization. The nature of the population amongst whom they move does not demand it; we have no conspiracies threatening political disturbances, no burning social questions, agrarian or otherwise, to evoke tumultuous breaches of the peace. The police is quite sufficient for the detection and repression of all ordinary crime in all ordinary times; and our times, as I have said, are very rarely otherwise. When they become so, I am for having the sepoy called in to the aid of the police, in preference to having a permanent military police in reserve for what seldom occurs. I have served for seven years where I soon got to learn what a curse the old military constabulary, maintained in those districts, soon became to the hillmen of Ganjam and Vizagapatam. I am speaking of what I know; and I say, remove their grievances and have British officers living among them, and the mountain tribes on our northern frontier are, with a little kindly management, as amenable to the ordinary procedure as are the people of any other part of the presidency. If, on the other hand, it is

not thought worth while to win their confidence, the result will be a series of petty insurrections, with inglorious but harassing campaigns. What does Colonel Rammell, Commanding the troops, say in his very last letter?—"Military measures alone will not put down this rising; long-standing complaints must be heard and relieved."

(Sd.) DAVID F. CARMICHAEL.

## J.—HYDERABAD.

No. 90, dated Hyderabad, 23rd August 1879.

From—COLONEL SIR R. J. MEADE, K.C.S.I., C.I.E., Resident at Hyderabad,

To—The President, Army Organization Commission, Simla.

Under instructions from the Government of India in the Military Department, as conveyed in letter No. 205 S.B., dated the 7th ultimo, from Colonel Burne, I beg to address you on the subject of the military requirements of the Hyderabad administration.

2. Before giving expression to my views in the above matter, I will, in the first place, endeavour to afford the information called for in the 2nd paragraph of the letter quoted above.

3. As the Government of India is aware, the territory designated the Hyderabad Assigned Districts, forming the northern portion of Hyderabad, has been ceded, under treaty, by His Highness the Nizam to the British Government for the maintenance of the Hyderabad Contingent. This territory, which bears the name of Berar, and which will hereinafter be alluded to under that designation, forms the province of the Hyderabad administration, the area whereof may be reckoned at 17,600 square miles.

4. The information called for, it would seem, had reference primarily to Berar and the stations where forces under this administration are located; but as the Hyderabad Subsidiary Force and the Hyderabad Contingent (two separate forces) have been maintained with the definite object of preserving the tranquillity of His Highness the Nizam's dominions, otherwise called Hyderabad, a report drawn up under present injunctions would, it is considered, be incomplete unless it included the latter. I will, therefore, proceed to give the required information under two separate heads, *viz.*, Berar and Hyderabad.

5. *Firstly, Berar.*—The strength of the Native population of Berar may be stated at about

(a) Strength of native population. 2,300,000, and the extent of the country at about 150 miles in length from east to west and 140 in breadth at the average. The population for the most part is agricultural, and is in easy circumstances. Only 7.5 per cent. is Muhammadan, and the rest are Hindus, &c.

6. The strength of the European and Eurasian population (exclusive of the army) may be stated at 600 souls, a very small figure indeed, compared with that of the Native population; but this is easily accounted for by the fact that the British have

(b) Strength of European and Eurasian population (exclusive of army).

only since the year 1854 undertaken the administration of this province, and that most of the European and Eurasian residents consist of persons who subsequent to that date have taken up employment in the Government service in Berar.

7. The state of feeling of the Native population in Berar, and especially with the agricultural classes, is predominantly favorable towards the British.

(c) State of feeling. The people themselves are mostly a peaceable race, and appreciate the protection they enjoy under British administration.

8. The elements of danger in Berar may be safely put down as *nil, i.e.*, referring to any probable warlike demonstration on the part of the people of the province. At the period of the mutiny

(d) Elements of danger.

of 1857-58, some anxiety prevailed in regard to the feeling of the large Muhammadan population of Ellichpur, and British ladies were advised to leave the province by the then Deputy Commissioner of the district, Mr. Bullock. The persons who then composed the population have since mostly died out, or been admitted into the provincial service, or obtained employment under the Nizam's Government. The cause of their bad feeling was chiefly due to what they considered the ill-treatment of the family of the Nawab of Ellichpur, which had rendered good service to Colonels Wellesley and Stevenson during the Mahratta war. The Nawab's jagir of the value of 8½ lakhs per annum was included in the ceded territory, and after petitioning at Hyderabad for many years for redress, he ultimately had an estate conferred on him amounting to about Rs. 50,000 a year in the Oodgher district in Hyderabad. His adherents and relatives naturally felt the hardship inflicted on the family by this arrangement.

9. Political feeling may be said to be non-existent in Berar; and should it ever arise with the progress of education, it will probably be swayed by currents from Bombay, as the influential inhabitants are mostly of the same class—Mahrattas. The people generally are Kunbis, though speaking Marathi. The standard of education is very low at present in Berar. The few vernacular papers that exist there breathe little of discontent. The capabilities of Berar in producing cotton, for which it is chiefly famous, have resulted in an extraordinary growth of commerce during the last 15 years, and this, it may be hoped, will promote peaceful tendencies within its borders.

(e) Strength of police.

10. The strength of the police in Berar is as follows:—

Inspector-General of Police	...	...	...	...	1
District Superintendents	...	...	...	...	6
Assistant Superintendent	...	...	...	...	1
					8
Regular Police	...	...	...	...	2,304
Railway Police	...	...	...	...	63
Municipal Police	...	...	...	...	302
					2,669

(f) Distribution of police.

11. The distribution of the police is as follows:—

District.	Regular.	Railway.	Municipal.	Total.
Amraoti	467	26	90	583
Ellichpur	209	...	53	262
Wun	420	...	17	437
Akola	433	37	77	547
Buldana	413	...	36	449
Basim	382	...	29	391
Total	2,304	63	302	2,669

12. The distribution of the Berar Police according to the work on which they are engaged is as follows:—

Guards at district, central, or subsidiary jails	...	...	18
„ over lock-ups and treasuries or escort to prisoners or treasure	...	...	208
On town or municipal duty	...	...	289
In civil stations	...	...	22
On ordinary police duty	...	...	2,132
			2,669

13. As above stated, Berar is occupied by a peaceable race, rendered so, I may say, by our own vigorous and conciliatory administration of the country. The police are quite efficient for the work for which they are maintained. Beyond being called upon sometimes to trace or apprehend dacoits, occasion has never arisen for their employment against armed disturbers of the peace. There is one policeman to every 6 square miles and to every 816 persons in the province.

14. The strength of the European and Eurasian population (mostly servants of the State) has just reached a number that has admitted of the formation of two companies of volunteers. One of 44 members at Akola, and another of 60 members at Amraoti, the two sudder stations in Berar; and as these companies are not likely to be called on to contend with other than local disturbers of the peace, who themselves cannot but be wanting in discipline, they would doubtless suffice for the maintenance of order at these stations in any case of simple local disturbance.

15. Except in the event of a general rising of the Native population or of foreign invasion, the weakness of the European and Eurasian population is not such as to cause anxiety for the safety of non-combatants, women and children, or to call for special arrangements for their protection, beyond what is already at hand, as noted in parts (a) and (b) of this report in reply to paragraph 3 of Colonel Burne's letter.

16. As above stated, the able-bodied of the European and Eurasian population have already enrolled themselves into a volunteer rifle corps, for the maintenance of order in case of disturbance.

17. The compulsory enrolment of Europeans and Eurasians in Berar in a volunteer corps would appear to be unnecessary, as there are no settlers in the province, and as a fair proportion of the residents of this class, who are mostly Government servants, have already, of their own accord, enrolled themselves in the volunteer companies above referred to.

18. The volunteer system has only lately been introduced into Berar. The information above afforded gives a general idea of the manner in which the British residents have responded to the proposal for enrolment; and I have little doubt but that, with the necessary encouragement, the system will in due course develop itself beyond the point at which it now stands. Much cannot, however, be expected in this respect in a province where European and Eurasian population is so sparse, as is the case in Berar.

19. Turning, now, to the information called for in paragraph 3 of Colonel Burne's letter.—  
Military requirements in Berar—  
(a) for garrison purposes and the maintenance of order.

* 1 Regiment infantry, 7 companies	Strength	...	705
1 Troop cavalry	...	...	59
1 Battery artillery, 4 guns	...	...	123
	Total	...	887
† At Amraoti—			
One company from regiment, Ellichpur	...	...	110
At Akola—			
A detachment from the regiment at Hingoli	...	...	155

20. For internal military purposes, this force is ample, as far as Berar is concerned. On the subject of the utilization of this force, which is part of the Hyderabad Contingent, for external military purposes, I shall defer recording my remarks till I submit my views in reference to the Hyderabad Contingent and the general military requirements of this administration. I will merely add here that we have at stations bordering on the province of Berar, viz., Aurangabad, Jalna, and Hingoli, an available force of contingent troops of 3,500 men and 8 guns, which answers the double purpose of being in a position to render service in Berar by co-operating there if necessary, as well as operating against insurgents in the Nizam's country.

21. I will now revert to the second head under which I propose to furnish the information required for the Commission, viz. :—

#### Hyderabad.

(a) Strength of Native population.			
Aurangabad	...	...	4,532
Bolarum	...	...	6,000
Hingoli	...	...	4,800
Jalna	...	...	7,000
Lingsugur	...	...	2,237
Mominabad.	...	...	2,957
Shahabad	...	...	2,000
Secunderabad	...	...	42,959
	Total	...	72,485

22. The kingdom of Hyderabad is ruled by a Prince in subordinate alliance with the British Government. It is the largest existing Native principality. Its extent in area is stated at 90,000 square miles, and the strength of its Native population is estimated at about 10,660,000 souls, which is probably considerably in excess of the fact. This latter figure includes the population of the stations under British jurisdiction, the numbers of which are as stated in the margin.

23. There are no European or Eurasian residents in the interior of this country, except possibly a few stragglers, of whom nothing is known or need be said. At Hyderabad itself, i.e., at the seat of government and at the several stations occupied by the Subsidiary and Contingent forces, there is a small number of Europeans and Eurasians, mostly in employment under the State; and there are also a few at other places occupied by the Nizam's troops or by the Nizam's engineering establishments. The strength of the European and Eurasian male adult population, exclusive of those in the army, is estimated to be as follows :—	In His Highness the Nizam's dominions	...	200
	In Secunderabad	...	151
	In the Hyderabad Residency bazaars	...	25
	At Bolarum and other stations of the Hyderabad Contingent	...	50
			426
	In His Highness the Nizam's army of this class there are about	...	121
	Making a total of	...	547

24. The above statement as to the number of Europeans and Eurasians in His Highness the Nizam's dominions is only an estimate, as there are no reliable returns, except those of Europeans in His Highness' service, from which to extract the required information; and His Highness the Nizam's Minister has intimated his inability to furnish an accurate list without much delay. The figure 200 given above as the strength of the male adult European and Eurasian population in His Highness the Nizam's dominions has been made up as follows :—

Number in civil employ under the Nizam's Government	...	...	112
Employés of the Resident's office	...	...	60
Number engaged in trades and professions	...	...	28
	Total	...	200

25. The state of feeling of the people in His Highness the Nizam's dominions may be considered under two heads, viz., in regard to its bearing (1) towards the Nizam's Government, and (2) towards the British Government, the relations between which are so close and intimate, in consequence of the long-standing and still existing treaty engagements between the two Governments.

26. On this subject I would premise by stating that so lately as 25 years ago Hyderabad was a most turbulent country, rendered so by, among other evils, the system that then, and for many years previously, existed of farming out to contractors, saukars, Arabs, &c., the collection of the revenue, partly in payment of their own dues, and partly on behalf of the State. These collectors frequently sublet their contracts or entrusted their working to naibs, who, for the maintenance of their own position, and for the purpose of enforcing their demands, employed armed foreigners.

Zemindars, and other wealthy owners of property, again, for their own protection, also employed mercenaries. Disputes often arose between the people and the troops, or between zemindars themselves, or sometimes these latter became refractory; and it was hence found necessary on the part of the State to coerce them, or otherwise to quell disturbances that arose from these causes. The Nizam's Government frequently was unable to do this, and called on the Resident to assist with the Contingent troops, which were employed on the duty after the Resident had first satisfied himself that such was warranted by the facts of the case. In this manner, the people of the country became familiar with the use of arms; and being at liberty to move about armed at all times, they gained for themselves the reputation of being a class who were always ready to fight. They continue still to carry arms as they did at the period here referred to; and there is thus at the capital and throughout the Nizam's a large class of men used to arms, and in case of disturbance the element for feeding the same will not be found wanting.

27. The agricultural classes, as distinguished from the armed class described above, are a peace-loving people, who have been much oppressed by the unprincipled and grasping officials who have been put in authority over them. They appear to chafe much under the present system, which has given employment to a large number of strangers from other parts of India, who are generally personally unpopular, and against whose proceedings many complaints are made. Most of the districts are managed by persons of this class, who are said to fill all subordinate offices with their own relations and friends, and there is much discontent in consequence.

28. The Nizam, while still a vassal of the Mogul empire, and before he assumed independence, had created a class of nobles and sirdars in Hyderabad, upon whom he conferred grants of land or the State revenues for their own support and the maintenance of their retainers, on conditions which generally conveyed to them hereditary rights in such grants. Any interference with these rights in after-years was invariably resisted by the grantees; and where such interference was persisted in, disturbance and bloodshed were the result.

29. The zemindars and hereditary landholders are described as being in some cases much dissatisfied with the course His Highness' Government has for some time past taken towards certain persons of their own class. These classes are much connected by intermarriages; and individual grievances are commented on by many, far and near. The contrast between Berar and Hyderabad in the treatment of the rights of hereditary landholders is much discussed amongst them. The British Government does not interfere with the internal administration of Hyderabad, and the grievances of these classes have not as yet been put forward in a way to demand its notice; but they are the cause of much complaint and dissatisfaction.

30. The trading classes are generally well-disposed towards the British Government, but not equally so towards the Nizam's—especially the bankers at Hyderabad, who have large unsettled claims against His Highness' Government. Every description of article comprising the home trade finds its way into the Hyderabad country. The exports are limited. No oppression is exercised towards traders; but they find some difficulty in recovering their dues from the nobles and others at the capital, as they receive very little assistance from the courts.

31. In regard to the more wealthy class mentioned above as dissatisfied—*viz.*, the bankers—the Nizam's Government has from time to time borrowed large sums from numerous firms at Hyderabad which have remained unpaid for years, to the ruin of the bankers, who have thereby in many instances been reduced from wealth to bankruptcy. The nobles and others have followed the example of Government; and while decrees are often given in favor of complainants against such persons by the courts, no adequate assistance is rendered in obtaining execution of the same, and the decrees are thus in many cases of no use whatever.

32. These remarks will explain the ground for the opinion I entertain that the state of feeling of the people throughout the Hyderabad territory cannot be described as one of contentment and good-will towards His Highness' Government; and where the feeling is not one of discontent, it may perhaps be best described as one of indifference.

33. This feeling has to some extent extended itself towards British officers, to whom in the interior ill-will is occasionally shown, the slightest provocation on the part of a European being apt to be immediately, and sometimes violently, resented. It is, at the same time, a fact that persons of all classes, who are discontented with the existing system and state of things, appear to look for relief from the action sooner or later of the British Government.

34. While expressing myself thus freely on this point, I do not question the existence, amongst certain classes and persons, of good feeling towards the Executive. Those who are exceptionally well treated, or who compose or are connected with those in power, and may be termed the ministerial party, are well content. These, however, are, as a rule, cordially disliked by the more influential of the court or Hyderabad party. Their ranks are filled from Hindustan; and the Nizam's own subjects are naturally indignant at seeing the State favors in a large degree allotted to, and almost appropriated by, persons whom they consider to have no claims thereto.

35. Surrounded as Hyderabad is by British territory, no immediate external elements of danger exist. The internal elements of danger, I regret to say, are more serious. Apart from the sources of evil mentioned above, wherein exists the nucleus of future possible trouble, the condition and character of the armed forces of the State are, and must always continue to be, a subject of anxiety, so long as they are maintained as at present.

36. Besides the two British forces called the Hyderabad Subsidiary Force and Hyderabad Contingent, which are maintained under treaty for all military purposes in the Hyderabad country, large State forces and levies are kept up, the greater part of which are located in the city of Hyderabad and its suburbs. One of these is the force termed the "Reformed Troops," the cost of which must be greatly in excess of the services it renders, at present at all events. This force has a political significance, to which I shall refer by and by.

37. Another element of insecurity is to be found in the system permitted at Hyderabad by which almost every nobleman maintains a set of armed retainers at the expense of the State, who are so

attached to the person of their master as to forget the allegiance and obedience they owe to the head of the Government, against whom they would probably not hesitate to act, if prompted to do so by their immediate superior.

38. Possible trouble might also be found to spring from the free admission into Hyderabad of foreigners from Hindustan, who, in the event of any *émeute* occurring from religious or other causes, would probably sympathize with and join in the same. As long as the Hyderabad Subsidiary Force is located at Secunderabad, and the Hyderabad Contingent garrisons Bolarum and other stations in the Nizam's country, no serious danger from this cause need however, it is thought, be apprehended. The British troops of these forces at the capital are quite sufficient to cope with the armed rabble of the city, even if it were joined by the Nizam's reformed troops, who are mostly recruited from Hindustanis. Should, however, a *general rising* take place in the city against His Highness' Government, in which the Arabs and other levies took part, the case would no doubt be one of much gravity. In such event, the rebels would at once secure the persons of the Nizam and his chief nobles, whose residences surround the palace, and hold them and His Highness' family as hostages; and the operations of the British force against the city under such circumstances would be attended with much difficulty and risk, as there would be fully 25,000 armed men to oppose it in any attempt to suppress the outbreak and rescue the Chief.

39. The chief portion of the troops and levies which compose the Nizam's army is located at Hyderabad, the greater part of them being within the city walls. This arrangement, which is of long standing, is, for obvious reasons, a most objectionable one, the capital being at all times filled with armed men who have little real duty to occupy them, and who are ever at hand and ready to join in any trouble that may break out.

40. The strength of the Nizam's armed forces of all descriptions located in and around the city is about as follows:—

				Strength.
1. Reformed troops	...	...	Infantry	2,471
			Cavalry	920
			Artillery, 14 guns...	298
Total				3,689
2. Reformed city troops	...	...	}	2,317
3. Miserim regiment	...	...		
4. Other city troops and levies	...	...		5,823
5. Surfi Khas troops	...	...		4,815
6. Minister's troops	...	...		534
7. Arab Jamaiahs	...	...		4,484
8. Other levies of all sorts, Sikhs, Rohillas, &c.	...	...		3,789
9. Pughah	...	...		7,315
				29,077
Total combatants				32,766

41. Of these forces, the reformed troops, which have several European and Eurasian officers in their ranks, are the best disciplined.

42. The reorganized city troops and the Arab and Rohilla regiment at Miserim (Jamaiah Nizam-i-Myboob) are next in this respect.

43. The other troops and levies are little disciplined; but the Arabs and Rohillas amongst them would be no contemptible foe to expel from the city in the event of such becoming necessary.

44. The history of the reformed troops, and of the circumstances under which they were raised, was fully reported to the Government of India in despatch from the Resident to Foreign Secretary, No. 136A. of 14th March 1876. This force was, as is well known, brought up to its present strength with the object of becoming a substitute for the Hyderabad Contingent, which it is, however, quite unfitted to replace. Its maintenance is a heavy charge on the State revenues, for which it cannot be said to give a corresponding return, as the Contingent is available to do, as it has done for the last sixty years, most of the work for which it has been raised. The reformed force is viewed by the influential court party, and probably other classes at Hyderabad, with disfavor; and some of the highest among the nobles regard it with distrust, and as an element of future danger in the event of troubles occurring. The Minister does not share this feeling; but it is doubtful if he has much confidence in the efficiency of the force as a military body. As already stated, the force is chiefly recruited from Hindustanis; but it is believed that many discharged men from the Madras army and the Hyderabad Contingent are to be found in its ranks.

45. I have always been of opinion that this force, as at present constituted, was raised in a manner and is maintained for purposes obnoxious to the object of the treaty of 1853. This has been in a way avowed by the Minister, Sir Salar Jung, who, in his last application for the restoration of Berar, demanded the abolition of the contingent, which he deemed to be no longer required, consequent on the existence of the reformed troops.

46. On this subject I have no hesitation in recording my firm belief that the maintenance of order throughout the Hyderabad territory is largely dependent on the contingent, and that the reformed troops would not adequately supply its place in this respect. I have further to remark that this force has been raised, not by His Highness the Nizam, but by the Minister, for a special purpose, viz., to furnish ground for setting aside a treaty between the two Governments which was solemnly agreed to and executed by the Nizam himself.

47. I have submitted to Government that this force may be suffered to remain as at present, on the condition that its strength does not exceed a fixed complement; and this has been sanctioned, and has been agreed to by His Highness' Government. But should the question arise of the necessity of breaking up it or the contingent, I could have no hesitation in recommending the retention of the latter, and the reduction of the reformed troops to such strength as would suffice for the duties for which a small force of the sort is really required.

48. A description of the Nizam's army may perhaps not be out of place. The Nizam's regular troops, known as the reformed troops, I have described as a disciplined force, which is trained in parade and field manœuvres on the same principle as that of the British Native army.

The total strength of this force and of the reformed city troops, which are also included under the head of regular troops, is given at 5,099 combatants of all ranks, the greater portion of which is located at Hyderabad. The Miserim regiment of Arabs and Rohillas, which was stated in the return furnished in October 1878 to muster 1,268 men of all ranks, is now described as having only 907 combatants. This regiment is not included in the regular troops; but it and the latter make up a force of 6,006 combatants that are more or less trained and disciplined. The Miserim regiment is cantoned 20 miles from the city, and is commanded by an officer who is a native of Algiers, and has many Turks as well as Arabs and Rohillas in its ranks.

49. The other portions of the Nizam's army are composed of Africans, Arabs, country-born Arabs, Sikhs, Rohillas, Afghans, Sindhis, and Hydrabadis, and are under the command of several officers, all independent of each other; some of whom instruct their men in drill, while others do but little in this respect. These perform all the guard duties of the Nizam's Minister's and other high nobles' palaces and at treasuries, jails, &c., in the districts. Their number is given at close on 46,592 combatants of all ranks, a large proportion of whom may be termed mercenaries.

50. Since the above was written, His Highness the Nizam's Minister has furnished a return shewing that the Nizam's army amounts to 52,598 men. The distribution in the districts of a portion of this force is as stated in the margin, and exhibits, as will be seen, a total of ... 10,493

<i>Dewani troops in the districts.</i>			
Nandair	...	...	1,167
Bedor	...	...	630
Nuldrng	...	...	547
Gungakheir	...	...	150
Raichore	...	...	19
Shornpore	...	...	1,223
Gulburgah	...	...	797
Anrangabad	...	...	950
Reerd	...	...	389
Purbunny	...	...	495
Indore	...	...	858
Maiduck	...	...	832
Elgundul	...	...	565
Surpoor Tandoor	...	...	97
Kumnum	...	...	446
Nulgoondah	...	...	272
Naggur Kurnool	...	...	584
At customs posts in different talukas	...	...	50
On guard duty at sudder treasuries	...	...	67
			<hr/>
			10,138

<i>Surfi Khas troops in the districts.</i>			
On guard duty at judicial courts, Government offices, treasuries, &c.	...	...	855
			<hr/>
Total	...	...	10,493

The rest of the troops are stationed in and about the city of Hyderabad, as here detailed, viz. :—

*I.—Dewani troops.*

(1) Present for duty, on guard duty, &c.	...	17,200
(2) On guard duty at Government offices, courts, treasuries, &c.	...	8,375
(3) On duty at the Minister's palace	...	744
		<hr/>
Total	...	*26,339

*II.—Surfi Khas troops.*

(4) Present for duty, on guard duty, &c.	...	1,823
(5) On guard duty at Government offices, courts, treasuries, &c.	...	5,250
		<hr/>
Total	...	7,073

*III.—Pagah troops.*

(6) Present for duty, on guard duty, &c.	...	8,693
		<hr/>
Making a grand total of	...	52,598

51. Of these, the mounted troops are as follows—

Dewani troops	...	...	...	10,600
Surfi Khas troops	...	...	...	736
Pagah troops	...	...	...	2,153
				<hr/>
				13,489

and footmen and infantry as follows—

Dewani troops	...	...	...	25,877
Surfi Khas troops	...	...	...	6,692
Pagah troops	...	...	...	6,540
				<hr/>
				39,109

making a total as shown of ... 52,598

52. The strength and character of the reformed and other troops in His Highness the Nizam's

Addressed to the Secretary to Government, Foreign Department—

- (1) No. 136A. of the 14th March 1876.  
 (2) No. 58A. of the 3rd August 1877.  
 (3) No. 65P. of the 16th August 1877.  
 (4) No. 127A. of the 4th October 1877.

service, and the reported reorganization and armament of His Highness' forces, have been the subject of full report by the Resident to Government in the marginally noted despatches; to the first of which I have already referred, and copies of all of which could doubtless, if desired, be furnished to the Commission by the Foreign Office.

\* Note.—The reformed troops, &c., shown above under heads 1 and 2 in para. 40, are included in this number.

(e) Strength of police.	(f) Distribution of police.	53. The strength and distribution of His Highness the Nizam's police is as follows :—				
In the city and suburbs	...	...	...	...	4,606	
Aurangabad	...	...	...	...	867	
Beerd	...	...	...	...	526	
Purbunny	...	...	...	...	571	
Beder	...	...	...	...	631	
Nandair	...	...	...	...	796	
Nuldrug	...	...	...	...	526	
Kummum	...	...	...	...	901	
Nulgoondah	...	...	...	...	676	
Nagur Kurnool	...	...	...	...	931	
Goolburgah	...	...	...	...	661	
Shorapore	...	...	...	...	436	
Raichore	...	...	...	...	451	
Lingsugur	...	...	...	...	436	
Indore	...	...	...	...	1,246	
Elgundul	...	...	...	...	751	
Maiduck	...	...	...	...	603	
Total					15,615	

This force is mostly armed with swords and firearms.

54. Their mode of carrying on their duties is generally slovenly and wanting in smartness, though a proportion of those employed at the capital are better in this respect. They cannot be described as

(g) Efficiency of police. efficient in the sense applicable to British police, and are quite incapable of acting against the armed mercenaries of His Highness the Nizam's troops. Their arms to a considerable extent, as is the case with those of the reformed troops, have been manufactured in military workshops at Hyderabad, where the ammunition for them has also been made up, and in regard to which I have already submitted special reports in the letters as per margin.

(1) Letter No. 13, dated 3rd August 1877.

(2) Letter No. 14, dated 15th August 1877.

55. The police in the Hyderabad territory, which is under the control of British officers, consists of—

(1) The Railway Police of the Nizam's State Railway and that portion of the Great Indian Peninsula Railway that runs through Hyderabad territory, about	...	...	250
(2) The Residency Bazaar Police	...	...	112
(3) The Secunderabad Cantonment Police	...	...	246
(4) The police of the six Hyderabad Contingent stations	...	...	110
Total			718

56. As the duties of these several bodies of police are purely local, it is unnecessary to give any further account of them; but I may remark that the railway police are active and efficient, and that the Secunderabad cantonment police is also fairly trained.

(h) European and Eurasian population considered as—  
 57. The strength of the able-bodied members of the European and Eurasian population at Secunderabad and Hyderabad not belonging to the British or Nizam's force is sufficient to form perhaps two companies of volunteers.

58. In their present state, in the absence of all military organization amongst them, they cannot but be viewed as a weak body requiring protection for themselves and their families in case of an outbreak. Those who live in the immediate vicinity of the Hyderabad Residency would, in such case, find protection there, as the Resident has a guard of 200 men from the Subsidiary Force on duty at the Residency. Non-combatants in Secunderabad residing sufficiently near the entrenchment in the European part of the military station at Trimulgherry would find shelter in it; but for the rest of the large population of this class there would be no protection in case of a serious disturbance.

59. Within the Residency limits and in the adjoining suburbs of Chadarghat the male adults of the European and Eurasian population would be sufficient to admit of the organization from it of a small volunteer force; but as the greater number of these persons are either in, or are connected with, the Nizam's service, and are residing within His Highness' jurisdiction, it is not clear how such a force could be enrolled.

(i) Of possible greater utility if organized.



60. Compulsory enrolment under such circumstances is, of course, out of the question, so far as the Nizam's employes are concerned; but the Residency European and Eurasian employes might be required to form a volunteer company.
- (c) Compulsory enrolment.
61. The Nizam's State Railway officials have organized themselves into a volunteer company in connection with those of the Great Indian Peninsula Railway; but the State Railway line is so short, and the officials so few, that further development amongst the latter need not be expected.
- (j) Development of volunteer system.
- Military requirements—
- (a) For garrison purposes and the maintenance of order.
- |                       |     |     |               |
|-----------------------|-----|-----|---------------|
| * Subsidiary Force—   |     |     |               |
| Men                   | ... | ... | ... (a) 4,980 |
| Guns                  | ... | ... | ... 18        |
| Hyderabad Contingent— |     |     |               |
| Men                   | ... | ... | ... 7,520     |
| Guns                  | ... | ... | ... 16        |
62. The obligations of the British Government in connection with the military protection of the Nizam and his country, which are very comprehensive and onerous, are provided for by the maintenance of two large forces, the Hyderabad Subsidiary Force and the Hyderabad Contingent, of the strength respectively noted in the margin.\*
63. The whole of the Subsidiary Force, which includes a large portion of European troops is located at Secunderabad, five miles from the Residency, and six from the city.
64. The head-quarters and a portion† of the Contingent are stationed at Bolarum, 10 miles from the Residency. There is thus a total British force of 6,480 men and 22 guns in the immediate neighbourhood of the capital and at hand to meet any emergency that may arise at it.
- |       |     |     |     |       |
|-------|-----|-----|-----|-------|
| † Men | ... | ... | ... | 1,500 |
| Guns  | ... | ... | ... | 4     |
65. The rest of the Contingent is cantoned at six stations, one in Berar, and five in Hyderabad, which have been selected as the best located for the military requirements of the territory and the general maintenance of order therein.
66. The Subsidiary Force has hitherto answered a two-fold purpose, viz., (1) the protection of the Nizam against internal foes, and (2) the upholding of British prestige at Hyderabad. This force is not stronger than is necessary for these purposes, with reference to the large number of armed men collected at the capital and the vast population of the latter and the suburbs, stated to amount, with that of the cantonment of Secunderabad, to 450,000 souls. Except under absolute necessity, no considerable portion of the Subsidiary Force should, I consider, be employed away from the capital—certainly not for any length of time—as such a measure might be attended with an unsettlement of public feeling in the city and consequent risk.
- (b) Internal and external military purposes.
67. The Hyderabad Contingent, which is a perfectly equipped and efficient force, composed wholly of Native troop, is quite adapted for external as well as internal military purposes; and a considerable portion of it might be regarded as always available for the former, with the concurrence of His Highness' Government, when the condition of affairs in Hyderabad does not specially require the presence of the whole force within its limits.
68. The military requirements of this administration, including Berar, are, in my opinion, sufficiently provided for by the Subsidiary Force and the Contingent.
69. The former is composed of troops of the Madras army, and, as a division of that army, is under the command of the Commander-in-Chief at Madras, while its services are at the disposal of the Resident, if occasion should arise for his requiring them.
70. The Hyderabad Contingent is a local force raised, recruited, and located within the territories of His Highness the Nizam, and maintained for service primarily in these territories. It was originally part of the Nizam's army, which was gradually reorganized and officered by European officers chiefly from the Hon'ble Company's army. Under the provisions of the Treaty of 1853 it became a British "auxiliary force," and its control was vested in the Resident.
71. Both these forces are political forces, maintained under treaty engagements. Article II of the Treaty of 21st May 1853 provides, (1) that the Subsidiary Force shall consist of not less than 8 battalions of sepoy and 2 regiments of cavalry, with their requisite complement of guns and European artillerymen, fully equipped, &c.; and (2) that, unless with the Nizam's express consent, there shall never be less than 5 regiments of infantry and 1 of cavalry, with a due proportion of artillery, of the Subsidiary Force stationed within His Highness' territory, and that the residue of the force shall at all times be brought into the latter without delay on His Highness' making requisition therefor.
72. The payment of this force was provided for by the cession in perpetuity by the Nizam to the British Government, under Article V of the Treaty of 12th October 1800, of all the territories acquired by His Highness under the Treaties of Seringapatam of 18th March 1792 and of Mysore of 22nd June 1799.
73. Any economy that can be effected in the charges of the Subsidiary Force, without reducing it below the strength as above specified in the treaty, will be a saving to the British Government.
74. The only arm in which the Subsidiary Force is at present in excess of its treaty strength is in the cavalry, of which there are one European and one Native regiment, whereas the treaty specifies two (Native) regiments. As one European regiment is in such cases deemed to be equal to two Native, the present strength of the cavalry represents three Native regiments. Looking, however, at the actual number of men of this arm now with the Subsidiary Force, viz., 737 of all ranks, excluding officers, I do not think that any reduction in it would be prudent.

(a) NOTE.—One field battery of the force was moved to Mooltan in December 1878, and has not been replaced, and 3 companies European infantry (271 men) are on duty at Madras. These are not included in the strength shown here.

75. For many years past, a large annual charge has been incurred at Secunderabad for military works for the European portion of the force, which have been extremely costly; but these are now approaching completion, and this heavy item connected with the maintenance of the force will, I trust, soon cease to appear in the annual charges.

76. As regards the Hyderabad Contingent, Article III. of the Treaty of 21st May 1853 provides that it shall consist of not less than 5,000 infantry and 2,000 cavalry, with 4 field batteries of artillery. Article VI of the same treaty provides that for the payment of the Contingent certain districts, of which there was a subsequent readjustment under Articles V to VII of the Treaty of 26th December 1860, should be assigned to the exclusive management of the British Resident for the time being, while Article VI of the latter treaty states that the districts assigned for the purpose, as so readjusted, shall be held for it, in trust, by the British Government.

77. The strength of the cavalry and infantry of the Contingent was somewhat in excess of that provided for in the treaty up to 1877, when certain reductions were sanctioned to admit of new charges for increase of pay and other items being met from the savings so effected. These reductions brought the aggregate strength of these arms down to 2,204 cavalry and 5,112 infantry, of all ranks, exclusive of European officers, at which it now stands.

78. The revenues of the Hyderabad Assigned Districts have largely increased during the last 10 or 12 years, and are ordinarily considerably in excess of the amount required for the payment of the Contingent, the annual surplus being duly handed over to His Highness' Government, as provided for in Article IV of the Treaty of 26th December 1860.

79. During the last two years the charges of the force have been quite abnormal, owing to the disbursement of compensation for dearness of food and some other minor causes, and the surplus payable to His Highness' Government has been much reduced in consequence. These causes are, however, only temporary; and with a couple of good seasons the charges will doubtless fall again, and return to their ordinary figure.

80. It may be noted that there has been a considerable increase of charge in the Contingent (1) by the abolition in 1864 of the rule previously in force under which all officers were removed from it on attaining the rank of regimental major, and (2) by a more recent order under which the Berar revenues are charged with a proportion of the pensions or pay of the European officers who may retire or succeed to colonel's allowances according to their service with the Contingent.

81. The only opening for reducing the ordinary charges of the Contingent somewhat would be by fixing the strength at the figures specified in the treaty including European officers and all other ranks, and allowing all in excess of those figures to be absorbed. This measure would effect a saving of about Rs. 80,000 annually.

82. In former discussions on this subject, any such reduction has been deprecated on the score of its being intended that the figures recorded in the treaty "meant rank and file" only, and did not include officers and non-commissioned officers. This view may certainly be correct; but in the absence of any record to show that it is so, I am of opinion that it is quite open to Government to act as it pleases in the matter.

83. The force, with a strength of 2,000 cavalry and 5,000 infantry of all ranks and grades, and with 4 batteries of artillery (strength 520), would be quite strong enough for the duties it has to perform; and looking at the increase that has unavoidably taken place in the charges during the last 15 years, from the causes mentioned above and in other ways, I think there are good grounds for reducing it to that strength, if Government sees no objection to that course on the score that it might be open to question for the reason stated above. I feel sure that His Highness' Government would, if consulted, readily concur in the measure.

84. In closing this report, it may be as well that I should bring to notice that the matter of the military establishments maintained in Hyderabad and the expenditure incurred therefor was made the subject of consideration by a Commission appointed by the Government of India for the purpose, in Financial Resolution No. 6737, dated 8th June 1861, whose report, completed on the 10th August of that year at Hyderabad, affords full information on many points discussed in my present letter.

No. 129, dated Hyderabad, 27th October 1879.

From--COLONEL SIR R. J. MEADE, K.C.S.I., C.I.E., Resident at Hyderabad,  
To--The Secretary to the Army Organization Commission, Simla.

The figures showing the strength of the Nizam's troops given in paragraphs 40 and 48 to 51, inclusive of my letter No. 90, dated the 23rd August last, have been the subject of reference to His Highness' Government since that letter was written, as it was found impossible to reconcile them with the returns previously furnished by it; and as it now appears that they are seriously incorrect, I beg to forward an amended return of the Hyderabad forces which has been furnished by the Nizam's Government after the fullest inquiry possible, and the accuracy of which, the Minister assures me, is quite reliable.

2. In addition to minor errors in the previous returns, it appears that from some mistake the horses were shown in the columns for men, and their number was added up with that of the latter.

3. I regret this mistake extremely.

## Abstract return of the strength of His Highness the Nizam's Troops for 1879.

Detail of Troops.	MEN OF ALL GRADES.			CATTLE.		Remarks.
	Combatants.	Non-combatants.	Total.	Horses.	Bullocks.	
<b>I.—DEWANI TROOPS.</b>						
(1) <i>Reformed Regular Troops.</i>						
(a) Cavalry (4 regiments) ...	1,263	444	1,707	1,227	...	
(b) Artillery (3 batteries) ...	351	170	521	140	53	
(c) Infantry (3 regiments) ...	2,297	218	2,515	...	...	
Total (1) ...	3,911	832	4,743	1,367	53	
(2) <i>Reformed City Troops.</i>						
(d) Infantry (2 regiments) ...	1,458	128	1,586	...	...	
(e) His Highness the Nizam's own regiment of Arabs and Rohillas or Jamait Nizam-i-Myboob ...	935	179	1,114	...	...	
Total (2) ...	2,393	307	2,700	...	...	
Total (1) and (2) ...	6,304	1,139	7,443	1,367	53	
(3) <i>Irregular Troops.</i>						
(f) Cavalry ...	3,604	292	3,896	3,616	...	
(g) Dismounted cavalry ( <i>Bargheers</i> ) ...	136	330	466	3	...	
(h) Arabs ...	5,835	727	6,562	82	...	
(i) Rohillas, Sindis, Turks, and Beluchis ...	1,444	47	1,491	...	...	
(j) Sikhs ...	906	46	952	5	...	
(k) Rathore, Burkundauz, and Bar-Jowan ...	8,924	540	9,464	12	...	
(l) Loda, Aligole, and Carnatic ...	161	10	171	...	...	
Total (3) ...	21,010	1,992	23,002	3,718	...	
I.—Grand Total Dewani Troops (1), (2) and (3) ...	27,314	3,131	30,445	5,085	53	
II.—Surfi Khas Troops ...	5,307	1,753	7,060	338	76	
III.—Pagah Troops ...	7,315	...	7,315	1,378	73	
IV.—Minister's Troops ...	601	159	760	51	...	
Grand Total ...	40,537	5,043	45,580	6,852	202	

HYDERABAD RESIDENCY;

The 27th October 1879.

R. J. MEADE,

Resident.

## K.—MYSORE.

No. 3814-51, dated Bangalore, 5th August 1879.

From—W. J. CUNNINGHAM, Esq., Secretary to the Chief Commissioner of Mysore,

To—The President, Army Organization Commission, Simla.

I am directed by the Chief Commissioner of Mysore and Coorg to reply to the letter No. 204 S.B., dated 7th July, on organization, asking for full particulars on the points therein specified.

2. According to the census taken in 1871, the Native population of Mysore numbers 5,047,841.

(a) Strength of the Native population. Since that census was taken, the population has been considerably reduced by the late severe famine, but to what extent it is not possible to say more accurately than that it is now probably between 4 and 5 million souls. The Native population of Coorg at the same time numbered 167,902.

The numbers, according to the census, of the European and Eurasian population will be nearer the truth at the present day than in the case of the Native population. They were for Mysore 4,374 of the civil population, and 1,399 women and children belonging to the military. In Coorg there were only 410 Europeans and Eurasians.

(b) Strength of European and Eurasian population (exclusive of army).

The population of Mysore is singularly peaceable and well-disposed. For many years past, there has been no cause for anxiety; and so long as the administration is fairly carried on, and justice impartially administered, there will not, Mr. Gordon thinks, be any probability of cause for anxiety. In Coorg the same may be said. The Coorgs are a fine and martial race, who are well disposed to British rule, and whose interests are identical with ours.

(c) State of feeling.

The above remarks will indicate that, in Mr. Gordon's opinion, the province of Mysore is particularly free from danger arising from within, unless the opposition of the people is aroused, as it has been before now, by maladministration. In Coorg, the Coorgs themselves are in a minority; and should the aliens push the advantages which greater wealth, higher education, and wider enterprise give them to the impoverishment or ejection of the Coorgs, that warlike race might display its resentment in overt acts of violence. This is not probable. Neither the laws nor the customs favor the possibility of such an eventuality; but the possibility is merely mentioned.

(d) Elements of danger.

The strength of the Mysore police, according to the report for 1878, was 4,661 officers and men. In Coorg an organized police force only exists in municipal towns, and to the number of five officers and forty-nine men. Every "jamma ryot," that is Coorg occupant of Coorg land on the feudal tenure peculiar to the country, is liable for military service in times of emergency, for police duties of escort, custody of prisoners, and so forth.

(e) Strength of the police.

(f) Distribution of police.

The following statement gives the distribution of the Mysore police:—

DISTRICTS.	ON DISTRICT.				Town or municipal duty and cantonments.
	Guards over lock-ups and treasuries or as escort to prisoners and treasure.		Other duties.		
	Officers.	Men.	Officers.	Men.	
Bangalore ... ..	...	23	93	474	427
Kolar ... ..	..	30	67	348	18
Tumkur ... ..	6	48	66	377	14
Mysore ... ..	6	26	75	499	239
Hassan ... ..	...	20	61	371	11
Shimoga ... ..	8	32	63	355	35
Kadur ... ..	6	18	44	256	16
Chitaldroog ... ..	4	55	62	383	16
	30	252	531	3,063	495

The Coorg jamma ryots are, as is to be inferred from the nature of their occupations, scattered all over the country; but there are fewer of them proportionally to the population in North Coorg.

Mr. Gordon can confidently report that the improvement in efficiency in the Mysore police of late years has been great, and that they are fairly efficient as a repressive force. In Coorg the police are more efficient than on consideration of the constitution of the force one would imagine; but there is room for improvement.

(g) Efficiency of the police.

3. The European and Eurasian population of Mysore could under no circumstances be of much strength as a combatant power. There were only, according to the census, 973 adult males. They are dispersed (though the majority are in Bangalore) through all the districts of the province, and in the west as well as in Coorg are scattered on different detached coffee estates. Their women and children would, in case of disturbance, be always a source of much embarrassment; and no special measures have anywhere been devised for their safety. In Bangalore, the fort, which is perhaps the only place where non-combatants could be collected and guarded, is situated so that the Native town intervenes between it and the European garrison. That they would be of possible greater utility than at present if organized for the maintenance of order in case of disturbance cannot be controverted; but the consideration of the means of so organizing them cannot, in Mr. Gordon's opinion, be separated from the question of the development of the volunteer system. Neither in Mysore nor Coorg does he consider that compulsory enrolment is possible, or to be desired; but on the development and encouragement of the volunteer system he would lay the greatest stress, and he directs me to invite attention in connection with this subject to my letter No. 2456-39M., dated 18th June 1879, to the Secretary to the Government of India; Foreign Department. There is a volunteer corps in Bangalore, with a company stationed at Mysore; and by the most recent returns it numbers 13 officers, 38 non-commissioned officers, and 116 effective volunteers and 49 cadets.

4. With regard to the opinion asked for in paragraph 3 of the letter under reference, on the general military requirements of the province, I am to state that the situation of Mysore is somewhat peculiar. A Native State itself is bound by treaty to maintain a force of cavalry, which by recent reductions now numbers little over 1,000 sabres. There is also a local infantry consisting of three regiments, each of 500 rank and file, who are employed almost exclusively on jail and treasury guards. By treaty Mysore is guaranteed military protection. The position, accessibility, and good climate of Bangalore render it a suitable place for a considerable garrison not only with regard to the actual requirements of the province itself, but for military purposes of the British power. And the

interior garrison at the French Rocks has been found sufficient for the rest of the province, especially when it is taken into consideration that at Mercara in Coorg, on the western frontier of Mysore, there is a small garrison of Native infantry. For Coorg itself the garrison of one regiment is believed to be sufficient, but not more than enough, since its reduction this year, owing to troops being sent on active service, appears to have reduced the garrison below what is actually necessary for guards. At Bangalore there would, on the grounds above referred to, always be a considerable garrison of British troops. What the strength of that garrison should be, must depend on considerations other than the wants and interests of Mysore; and Mr. Gordon therefore refrains from expressing any opinion on that point.

No. 480-77, dated Bangalore, 13th August 1879.

From—W. J. CUNINGHAM, Esq., Secretary to the Chief Commissioner of Coorg,  
To—The President, Army Organization Commission, Simla.

In continuation of my letter to your address No. 3814-51, dated the 5th instant, reporting on

Letter No. 3720, dated 11th July 1879, from the Secretary to the Madras Government, Military Department.  
Letter No. 383-3, dated 17th July 1879, to the Secretary to the Madras Government, Military Department, with enclosure.  
Letter No. 4242, dated 4th August 1879, from the Secretary to the Madras Government, Military Department.  
Letter No. 4298, dated 7th August 1879, from the Secretary to the Madras Government, Military Department.

the military requirements of Mysore and Coorg, I am directed by the Chief Commissioner to forward copies of correspondence with the Madras Government on the subject of the Mercara garrison; and to report in connection therewith that, in Mr. Gordon's opinion, it would be less expensive and on other grounds preferable if, instead of keeping a wing of a Native infantry regiment at Mercara, a company of the European regiment stationed not far off, at Cannanore, were placed in detachment at Mercara.

2. The military being relieved of the present guard duties at the jail and treasury, a company of Europeans would, Mr. Gordon believes, be amply sufficient for all military purposes; and whereas the climate of Mercara is unsuitable to the Natives of the plains, and causes sickness and dissatisfaction among the sepoys, to the European soldiers stationed in the enervating climate of the western coast an occasional change to Mercara would be exceedingly acceptable and beneficial. The existing accommodation would probably amply suffice for one company of Europeans.

3. If it should also be determined to reduce the French Rocks garrison to a wing of a Native regiment, which Mr. Gordon believes is quite sufficient, the detachment could as easily now be supplied from Bangalore, and more easily hereafter when the State railway to Mysore is open.

No. 3720, dated Ootacamund, 11th July 1879.

From—The Secretary to the Government of Madras, Military Department,  
To—The Chief Commissioner of Coorg.

His Excellency the Commander-in-Chief having brought to the notice of this Government the severity of guard duty imposed on the men of the wing 40th Regiment Native Infantry at Mercara, I am desired by His Grace the Governor in Council to request that you will be good enough to take the matter into consideration, and cause early steps to be taken to relieve the sepoy guards at the jail and treasury by police or any other means that may be practicable.

No. 383-3, dated Bangalore, 17th July 1879.

From—The Secretary to the Chief Commissioner of Coorg,  
To—The Secretary to the Government of Madras, Military Department.

I am directed by the Chief Commissioner to acknowledge receipt of your letter No. 3720, dated 11th July 1879, on the subject of the severity of guard duty imposed on the men of the wing 40th Regiment Native Infantry at Mercara, and in reply to state that the subject having already been brought under the consideration of the Chief Commissioner by Major-General Payn, Commanding Mysore Division, I addressed to him, under the Chief Commissioner's instructions, a letter, copy of which I have the honor to enclose, explanatory of the circumstances of the Coorg province, which render it impossible to relieve the military guards without going to considerable expense and obtaining the previous sanction of the Government of India.

2. I am desired to enquire whether, after perusal of the enclosed letter, His Grace in Council still wishes steps to be taken to increase the police at Mercara with a view to relieving the military of guard duty.

No. 308-3, dated Bangalore, 1st July 1879.

From—The Secretary to the Chief Commissioner of Coorg,  
To—MAJOR-GENERAL W. PAYN, C.B., Commanding Mysore Division.

In continuation of my letter No. 198-1, dated 31st May 1879, I am directed to explain the peculiar circumstances of the Coorg province, in which it is not practicable to furnish a police guard over the Mercara jail to relieve the guard of the 40th M. N. I.

2. Most of the ordinary police duties in Coorg are performed by "jamma ryots" who hold their lands on a species of feudal tenure which requires their assistance in arresting and escorting prisoners; but they could not be called out for permanent duty, such as guarding the jail, without special arrangements being made for pay and batta. In Mercara the regular police force only numbers 3 officers and 14 men.

3. It is manifest, therefore, that, in order to supply a jail guard, the entertainment of a special extra police force would be necessary; and the Chief Commissioner is precluded by the recent orders of the Government of India from making any proposition involving an increase of expenditure, unless the same can be shown to be absolutely unavoidable.

4. Mr. Gordon does not know how far it would be considered expedient by His Excellency the Commander-in-Chief to withdraw part of the detachment stationed at the French Rocks for the purpose of strengthening the Mercara garrison; but I am desired to say that if that measure would afford a solution of the present difficulty, the Chief Commissioner will have no objection on his part to urge against it.

No. 4242, dated Ootacamund, 4th August 1879.

From—The Secretary to the Government of Madras, Military Department,

To—The Chief Commissioner of Coorg.

In reply to your letter No. 383-3, dated 17th July 1879, I am directed by His Grace the Governor in Council to state that, as there is now only a wing of Native infantry at Mercara, the guard duty at the jail and treasury cannot any longer be taken by Madras troops.

2. This Government do not consider that there is any military reason for increasing the present garrison of the station, nor do they think it expedient to withdraw any portion of the detachment at the French Rocks (which has to provide for guard duty at Mysore) for ordinary jail duties at Mercara. Such a course would necessitate the maintenance of additional quarters, and, not being for military but for civil purposes, would probably be more expensive to the province than the provision of the necessary police or other guards.

3. As the health of the men is suffering, and the necessity for relieving them of the guard duty urgent, I am desired to request that you will again take this matter into early consideration.

No. 4298, dated Ootacamund, 7th August 1879.

From—The Secretary to the Government of Madras, Military Department,

To—The Chief Commissioner of Coorg.

In forwarding for your information the annexed copy of a letter\* from the Quarter Master

\* No. 1068, dated 26th July 1879.

General, I am directed to request that His Grace the Governor in Council may be favored with an expression of your views on His Excellency the Commander-in-Chief's proposal to reduce the permanent garrison of Mercara to a force not exceeding a wing of Native infantry.

2. I am to remark that ordinary jail and treasury guards, which form the only duty apparently calling for a larger force, are throughout the Madras presidency taken by police.

No. 1068, dated 26th July 1879.

From—The Quarter Master General, Madras Army,

To—The Secretary to the Government of Madras, Military Department.

With reference to paragraph 2 of G. O., 23rd June 1879, No. 3844, I have the honor by order to state that, in the opinion of His Excellency the Commander-in-Chief, a wing of a Native regiment is sufficient to occupy Mercara; and to request that the Government of India may be addressed with the view of deciding that a wing shall be the permanent garrison of that post.

2. The climate of Mercara is not suited for the Natives of the plains. The men suffer from the extreme humidity and the feverishness of the place.

3. On military grounds, there seems no reason for keeping a whole regiment at Mercara. At present the guard duty is severe for a wing; but that is in consequence of the jail guard, Mercara, being taken by the military. This might be remedied. Such guards should be taken by the police; and His Excellency recommends that the Government of India be requested to direct this to be done at Mercara, in conformity with the practice elsewhere.

4. A Native infantry regiment can be divided between Mercara and the French Rocks, a wing at each place.

## L.—BURMA.

No.—, dated Rangoon,—August 1879.

From—G. D. Burgess, Esq., Officiating Secretary to the Chief Commissioner, British Burma,

To—The President, Army Organization Commission, Simla.

I am directed by the Chief Commissioner, in compliance with the instructions contained in the letter from the Secretary to the Government of India in the Military Department No. 205 S.B., dated 7th July 1879, to submit the information required by the Army Organization Commission, together with the Chief Commissioner's opinion on the military requirements of this province. Statistics in regard to (1) the strength of the Native population, (2) the strength of the European and Eurasian population (exclusive of the army), and (3) the strength and distribution of the police, are given in the tables appended to this letter.

2. In estimating the state of feeling among the people of this province, regard must of course be had mainly to the Burmese, who form, in round numbers, 2,591,240 of the population. These form the most part inhabit the valley of the Irrawaddy, and have, of all sections of the population, the closest and most active connection with Upper Burma. The Arakanese, the Mons, or Talains of the Pegu plains, the Karens of Pegu and Tenasserim, and the Tai or Shan races may be considered as in some respects a counterpoise to the Burmans.

3. The Arakanese are content with our rule. Although excitable, their indolence and the absence of influential leaders render it unlikely that they would join in any serious disturbance. They still retain a recollection of the cruelties practised on them by the Burmese, which would prevent them from uniting in any general movement with that race. The Talains and Karens are universally well affected to the British Government. The antagonism between all these tribes and the Burmese, arising out of their past history, is gradually softening down under our rule, the tendency of which is to obliterate race distinctions. The separation of the Karens from the Burmese is likely to last longest. In the history of Burma, as of China, the Karens everywhere appear as a subject and oppressed people. In Burma they owe their rights and liberties to the British Government alone; and their attachment to our rule is proportionately strong. As the result of the labors of the American missionaries, there is also a large Christian element among the Karens, upon which some reliance may be placed.

4. Among the pure Burmese the majority of the respectable classes are at least satisfied with our Government, and would be unwilling to have it disturbed. Their preference is, however, founded to a great extent on the supposition of its stability and absolute power to protect life and property. If this belief were once shaken by attack from without, or by serious internal disturbances, the adherence of the Burmese to our Government could not be reckoned on. To some extent also the contentment of the Burmese is to be ascribed to the material prosperity of British Burma, and the extraordinary increase of wealth which during the last few years has been distributed among the agricultural population. Long-continued depression of trade or ill-judged measures of taxation, or any sudden and serious check on the prosperity of the province, might produce a revulsion of feeling.

5. The chief internal element of danger to our rule lies in the unsteady excitable character of the people. Their history has accustomed them to sudden and extreme changes of political fortune. They are an ignorant and superstitious people, with a surprising recklessness of temperament, which is encouraged by the popular literature. They have a thorough faith in *minlouns*, or persons who give themselves out as princes; and the appearance of one of these impostors is always sufficient to create excitement, and sometimes to secure a large following. Deeds of adventure have a charm and fascination for men even of good character, which to many prove irresistible in spite of the criminality and the punishment which follows sooner or later.

6. These are elements of danger upon which evil-disposed persons in our own territories occasionally work and which an enemy would not neglect. In the event of troubles with the Court of Ava, the King, who, from his position as the temporal head of Burmese Buddhism, necessarily exercises a very potent influence over the religious and superstitious feelings of the people, would doubtless appeal to these sentiments. The prestige of the King is great. Although there are no powerful aristocratic houses in British Burma, there are a few families of the old official classes, especially in the Thonkwa and Bassein districts, whose sympathies are more with Native than British rule, and who would require to be looked after in time of trouble. Moreover, although the people are, on the whole, contented with us and wish for no change, it would be a mistake to assume any enthusiasm on their part for British rule.

7. In the town of Rangoon there is a considerable population of Upper Burmans, many of them bad characters and ripe for mischief. The commercial intercourse between Rangoon and Mandalay affords facilities to these classes for the concoction of plots. The inflammable character of the houses in Rangoon, as indeed in all towns in Burma, makes it easy for one or two ruffians to excite conflagration in several quarters. At any time of unusual disquietude therefore, such as has prevailed since the beginning of the present year, exceptional precautions are necessary. But under ordinary circumstances, when there are no political complications at Mandalay, there is no quieter or more peaceful quarter of Her Majesty's Eastern dominions than the province of British Burma.

8. Unless in the event of a European war, we have nothing to fear by way of the sea; and when the defences of the seaport towns now under construction are completed, every necessary precaution in that direction will have been taken. On the land side we have a frontier of over 1,000 miles, which in some parts, and especially to the north of the Pegu division, is everything that a frontier should not be. We are exposed to attack from Upper Burma in all three divisions of the province; and

to secure ourselves in the event of hostilities, we ought to be prepared to strike a quick and heavy blow by the valley of the Irrawaddy. The Burmese army is, as an army, contemptible, and quite incapable of opposing us in regular operations in the field; but it would be capable of causing an immense deal of mischief if we were to show any disposition to be inactive. Portions of it could penetrate far into our territory on every side, sacking the villages and slaughtering the people, or compelling them to join their forces. This would expose our authority to a severe shock. To stand on the defensive in such an emergency would be suicidal; and the most effectual step that we could take would be to invade Upper Burma in force.

9. On the Arakan side there are wild tribes, such as the Looshais, Shandoos and Khyengs, which might on occasion enter our territories. It is not probable, however, that they would penetrate to any great distance; and it is believed that the police force would be strong enough to repel their raids.

On the borders of Tenasserim live the Karennees, Yahains, and other tribes of a lawless disposition from whom a certain amount of danger is always to be apprehended. These people visit our territories in considerable numbers. They are able to form extensive combinations without detection; but their schemes and enterprises generally take the form of dacoities and local raids.

10. To these forms of danger may be added the minor one of Chinese riots, which are liable to break out with suddenness and violence, but which under ordinary circumstances are not beyond the power of the police force to deal with.

11. The police force contains 7,318 men, distributed as shown in the annexed statement. The statement in the margin exhibits the proportion of the force employed on what may be called frontier duty. The neighbourhood of foreign races and tribes on a long and open frontier makes it necessary to entertain 1,244 men beyond the numbers which would be required if all the districts were inland. Two-thirds of the whole force, roughly speaking, are Burmans; the remainder being natives of India, Karens, and Goorkhas, with a few Shans, Khyengs, Toungthoos, and Karennees. The Goorkhas are mostly enrolled in the Arakan Hills district. They are armed with snider rifles, and are looked on as a thoroughly efficient body of men. The rest of the police are armed for the most part with enfield muskets. In the Salween district the frontier is guarded by Karens, who have done their duty in check-

Division	Men
<i>Arakan Division—</i>	
Akyab	32
Kyauk hpyoo	64
Sandoway	80
Arakan Hill Tracts	195
<i>Pyu Division—</i>	
Thayetmyo	473
<i>Tenasserim Division—</i>	
Amherst	89
Mergui	20
Shwe-gyee	16
Toungoo	135
Salween	200
Total	1,244

Annual cost, including clothing .. Rs. 2,30,140

ing the Toungthoo and Karennee marauders against whom they have had to act. The northern frontiers are protected by outposts of Burmese police, containing from 10 to 20 men each, and situated about 10 miles apart. These outposts have been found to be able to repel bodies of dacoits; and if massed together and commanded by their European officers, they might be depended upon to act successfully against considerably larger numbers of Upper Burmans. Care is taken to enlist men only whose ties lie in our territories; and the force is believed to be thoroughly loyal.

12. The police force is fairly efficient in treating ordinary crime. The pay of the men in the lower grades has recently been raised; and a scheme has been devised for supplementing the regular force with a rural police, so that there are well-founded hopes that its character and general efficiency will be much improved in the future.

13. Except in the larger towns, the number of Europeans and Eurasians is quite insignificant; and they would rather be an element of weakness than of strength, as they would require protection if any commotion should take place. In the larger towns they would be useful, if properly trained.

The total number of Europeans and Eurasians in the province is returned at 7,734. The male adults are reckoned at 4,466; and of this number the non-combatants may be taken to form about 10 per cent. The combatants would then amount to 4,020, leaving 3,714 non-combatants and women and children to be cared for. In the seaport towns this part of the population could be transferred to the shipping in case of necessity; and in Thayetmyo, Toungoo, Bassein, and Shwe-gyee it would find protection in the forts. Elsewhere there would be no refuge, except in flight or in the protection of a force specially despatched for the purpose. By organization the Europeans and Eurasians, where they live together in any numbers, might perhaps be rendered of more utility for purposes of local defence than they are at present; but their services would be quite inappreciable for the general protection of the province.

14. It is understood that the question of compulsory enrolment, on which the Chief Commissioner's opinion is asked, applies to Europeans and Eurasians only. The measure may be at once pronounced impracticable so far as British Burma is concerned. Not only, as already observed, are the numbers of Europeans and Eurasians so small that (except perhaps in Rangoon and Moulmein) such a measure would be of inappreciable benefit, but the conditions under which men of these races work in this country would make it impracticable as well as unadvisable. Any attempt to make military service compulsory would put a check on commerce, tend to drive capital and European enterprise away from the country, and seriously retard the progress of this province.

15. There now exist in Burma a corps of volunteers at Rangoon, a corps at Moulmein, a Railway corps, and corps at Prome and Akyab. The number of men enrolled is small; and it is with difficulty that a small proportion even of those enrolled can be mustered on special occasions. It would seem to be requisite to hold out stronger inducements than at present to join the volunteer force, and to bring official influence to bear in support of the movement. Many would probably be willing to join if led, but do not care to do so when their enlisting or not is regarded as a matter of indifference.



16. The last subject on which the Chief Commissioner's opinion is asked is the general military requirements of the province—

- (a) for garrison purposes and the maintenance of order ;
- (b) for internal and external military purposes, irrespective of (a).

17. When the forces in Pegu were reduced, the proportion of troops assigned represented a force numerically much stronger than the present, as the cadre of regiments has now been greatly diminished. On the other hand, the population, the wealth, and the trade of Burma have largely increased, while the necessity for protection has at least not decreased. With the exception of the construction of the railway from Rangoon to Prome, there has been little, if any, improvement in communications ; and it is still as important as, if not more important than, ever to maintain an effective force at the various military stations of the province.

18. At present troops are located at Rangoon, which is the head-quarters for the province, Thayetmyo, Toungoo, Moulmein, and Shwe-gyeen ; and detachments, owing to exceptional circumstances, have been temporarily placed at Bassein and Thambhula. The garrison at Rangoon is as small as it is consistent with safety to allow it to be. The force recommended by the Major-General Commanding is—

- one and a half batteries of garrison artillery ;
- one company of sappers ;
- one battalion of European infantry ; and
- two battalions of Native infantry.

The Major-General, a copy of whose letter is attached, speaks of furnishing a detachment to Port Blair, and a wing or two companies of Native infantry to Moulmein. It would appear worthy of consideration, however, whether the detachment to Port Blair could not be more conveniently supplied either from Calcutta or Madras ; while, as it is proposed to garrison Shwe-gyeen from Rangoon, the wing or companies to Moulmein could hardly be spared. The two companies spoken of should be detached to Shwe-gyeen. The force required at Thayetmyo is estimated by the Major-General to be—

- one mountain battery organized with elephants, half on the right and half on the left bank of the Irrawaddy ;
- one mountain battery with guns carried by coolies or by mules ;
- half a battery of garrison artillery ;
- one company of sappers ;
- one battalion of European infantry ; and
- two battalions of Native infantry.

The garrison at Toungoo should apparently be of the same strength. At Moulmein there should be a wing of Native infantry, and at Shwe-gyeen two companies.

19. The Chief Commissioner was in hopes that it might have been possible to dispense with detachments at Moulmein and Shwe-gyeen ; but further consideration has induced him to alter his opinion. The necessity for troops at Moulmein and Shwe-gyeen lies in the possibility of an organized attack by Karennees or some other of the wild tribes on our borders. It is believed that one such attack was not long ago planned on Moulmein, and that nothing but the fear of the regular troops stationed there prevented the enterprise from being carried into execution. If no military force were maintained at these places, apprehensions would perhaps be roused among the Native population, and an encouragement and a temptation might be held out to their savage neighbours to plunder both towns. There would be little hope of effectually resisting such an attack ; and there would be no possibility of punishing it before the authors had retired in safety beyond our frontiers.

20. The arrangements suggested for Thayetmyo and Toungoo are only of a temporary nature, because as soon as the railway is completed to Alanmyo, and the Sittang Valley Railway is opened to Toungoo, both Toungoo and Thayetmyo can be treated as outposts, to be garrisoned from Rangoon, where the great body of troops will be concentrated. To complete the position of defence, a good road is required between the two frontier posts. Early provision should be made for the railway extension to Alanmyo and the construction of the railway from Rangoon to Toungoo. Revised estimates for the latter project will be submitted to the Government of India in a few days.

21. Beyond the purposes mentioned in section (a) of paragraph 3 of the letter under reply, there do not appear to be any military requirements for internal purposes. For external purposes a military force would probably be required only against Upper Burma, and possibly against Karennee. In case of a rupture with the former country, an addition of one company of sappers and a regiment of European and one of Native infantry would probably be all that would be necessary. If any disturbance in the latter required our interference, the ordinary garrison of the province, if placed on the footing detailed above, could supply all that would be wanted. A rupture with Burma, however, would no doubt be followed by a redistribution of our forces with a view to the permanent maintenance of peace and good order, which would probably reduce Thayetmyo to a position of less importance than it must necessarily hold at present. These considerations, however, appear to be beyond the scope of the present reference.

22. It is a matter for consideration whether British Burma should not be garrisoned from the Bengal army instead of from Madras. The administrative connection of the province in all other respects is with Bengal ; and there is an obvious inconvenience in having military matters directed from a different quarter. The Chief Commissioner believes it would in many ways be convenient if the troops for service in Burma was supplied from Bengal.

Statement No. 1 showing the strength of the Native population of Arakan with the number of adult males in 1878.

Race.	Males 18 years of age and upwards.	Total number.
1. Arakanese and Burmese ...	113,223	387,491
2. Karens ...	43	155
3. Khyengs ...	5,652	20,393
4. Chinese ...	235	274
5. Madrasis ...	214	263
6. Bengalis ...	13,359	44,651
7. Native Muhammadans ...	7,627	25,672
8. Khwamis ...	4,116	13,066
9. Khyoungthas ...	3,377	11,491
10. Mroongs ...	69	237
11. Mroos ...	1,854	7,256
12. Shans ...	63	127
13. Daignets ...	581	1,917
14. Anoos ...	11	43
15. Kyaws ...	50	219
16. Shandoos ...	10	50
17. Khoons ...	20	100
<b>Total</b> ...	<b>150,509</b>	<b>518,405</b>

Statement No. 2 showing the strength of the Native population of Pegu with the number of adult males in 1878.

Race.	Males 18 years of age and upwards.	Total number.	
1. Burmese and Arakanese ...	514,862	1,289,112	
2. Talaings ...		255,068	
3. Karens ...		192,118	
4. Khyengs ...		32,155	
5. Shans ...		31,114	
6. Yabaings ...		8,163	
7. Chinese ...		6,085	
8. Kways ...		633	
9. Muhammadans ...		6,952	17,608
10. Hindus ...		9,828	17,248
11. Armenians, Africans, &c. ...		9,827	30,703
12. Parsis, Jews and others ...		1,637	2,391
<b>Total</b> ...	<b>543,106</b>	<b>1,882,398</b>	

Statement No. 3 showing the strength of the Native population of Tenasserim with the number of adult males in 1878.

Race.	Males 18 years of age and upwards.	Total number.
1. Burmese and Talaings ...	135,171*	389,301
2. Karens ...	60,985	175,635
3. Toungthoos ...	9,972	28,718
4. Shans ...	7,774	22,389
5. Bengalis ...	3,424	9,861
6. Muhammadans ...	3,013	8,677
8. Madrasis ...	6,951	20,019
9. Chinese ...	3,752	10,802
10. Siamese ...	1,849	5,326
11. Other nationalities ...	3,298	9,497
<b>Total</b> ...	<b>236,189</b>	<b>680,225</b>

\* These figures have been worked out assuming the proportion to be as in the other two divisions, viz., 1 in 2.88 of the total number of population.

Statement No. 4 showing the strength of the Native population of British Burma with the number of adult males in 1878.

Race.	Males 18 years of age and upwards.	Total number.
1. Burmese, including Talaings and Arakanese ... ..	763,256	2,591,240
2. Hindus and Muhammadans ... ..	51,154	143,736
3. Karens, Shans, Toungthoos, hillmen, Chinese and Siamese ... ..	100,632	303,461
4. Other nationalities ... ..	14,762	42,591
Total ... ..	929,804	3,081,028

Statement No. 5 showing the European and Eurasian population of British Burma (excluding foreigners).

	Male adults.	Total number.
Arakan ... ..	145	336
Pegu ... ..	3,304	5,668
Tenasserim ... ..	1,017	1,730
Total ... ..	4,466	7,734

From the foregoing statement it will be seen that the proportion of European and Eurasian male adults to the European and Eurasian population is 1 in 173.

Statement No. 6 showing designation and distribution of police in the districts of the province of British Burma.

District.	Inspector-General.	Superintendents.	Assistant Superintendents.	Chief Inspectors.	Inspectors.	Head-constables.	Sergeants.	Constables.	River Police.	Total.
Head-quarters ... ..	1	...	...	1	1	2	...	...	...	5
Akyab district ... ..	...	1	...	...	2	5	20	339	13	380
Kyouk-hpyoo district ... ..	...	1	...	...	2	5	14	320	25	368
Sandoway district ... ..	...	...	1	...	3	3	12	200	8	226
Hill Tracts, Arakan ... ..	...	...	1	...	2	2	10	248	8	271
Akyab town ... ..	...	...	...	...	2	...	3	67	...	72
Rangoon district ... ..	...	1	1	...	7	4	42	462	50	567
Thonkwa district ... ..	...	1	...	...	3	5	17	210	42	278
Bassein district ... ..	...	1	...	...	4	6	25	399	42	477
Henzada district ... ..	...	1	...	1	2	3	21	296	5	329
Tharrawaddy district ... ..	...	...	1	1	2	4	20	221	5	254
Prome district ... ..	...	1	...	...	5	8	32	435	15	496
Thayetmyo district ... ..	...	1	1	...	3	12	34	789	5	845
Rangoon town ... ..	...	1	...	2	4	4	17	261	17	306
Amherst district ... ..	...	1	1	...	4	14	49	614	36	719
Tavoy district ... ..	...	1	...	...	2	4	14	163	10	199
Mergui district ... ..	...	1	...	...	2	5	14	194	5	221
Shwe-gyeen district ... ..	...	1	...	...	3	7	23	325	33	392
Toungoo district ... ..	...	1	...	...	4	6	30	422	...	463
Salween district ... ..	...	...	...	1	2	5	12	229	12	261
Moulmein town ... ..	...	...	1	...	3	6	7	138	11	166
Railway Police ... ..	...	...	...	1	...	...	...	22	...	23
Total British Burma ... ..	1	14	7	7	62	110	416	6,359	342	7,318

No. 1059, dated 5th August 1879.

From—The Assistant Quarter Master General, British Burma Division,

To—The Officiating Secretary to the Chief Commissioner, British Burma.

I have the honor by order to acknowledge the receipt of your letter, Military Department, No. 941-98 of the 26th ultimo, addressed to the Assistant Adjutant General, British Burma Division, and which has been transferred to my department, giving cover to a copy of a letter No. 205 S.B. of the 7th ultimo, from the Military Secretary to the Chief Commissioner, British Burma, in which certain information is called for, and parts of which the Chief Commissioner desires to be furnished by the Major-General Commanding the division. These portions are apparently as follows:—

## I. Particulars regarding the European and Eurasian population viewed as—

- (a) a source of strength in combatant power and for the maintenance of order;
- (b) a source of weakness in necessity for the provision of the safety of non-combatants, women and children;
- (c) to the possible means of rendering them of greater utility than at present if organized for the maintenance of order in case of disturbance.

## II.—Question of compulsory enrolment.

## III.—Development of the volunteer system.

## IV.—Expression of opinion on the general military requirements of the province—

- (a) for garrison purposes and the maintenance of order;
- (b) for internal and external military purposes, irrespective of (a).

2. With reference to paragraph I and its sub-divisions (a), (b), and (c), attention is invited to the following tabular statement, taken from the latest accessible statistics, giving the population, European and Eurasian, of the different districts throughout British Burma, and irrespective of the military:—

District.	CHRISTIANS.	
	Europeans.	Eurasians and mixed classes.
Rangoon	628	3,342
Rangoon District	4	10
Moulmein	269	1,010
Akyab	116	160
Bassein	114	123
Prome	61	250
Henzada	53	157
Thayetmyo	15	36
Mergui	14	182
Tavoy	10	73
Shwe-gyeen	10	50
Amherst	10	45
Thonkwa	10	7
Sandoway	6	12
Toungoo	6	8
North Arakan	6	...
Kyouk-phyoo	4	32
Salween	3	...
Total	1,339	5,497

3. It will be observed from this table that, with the exception of Rangoon and Moulmein, and Akyab and Bassein to a much minor extent, and Prome and Henzada to a still less, the population of British Burma, viewed under the two-fold aspect above designated, can only be considered under (a), (b), and (c) in the light of weakness, not of strength.

4. As regards the districts of Rangoon and Moulmein, any element for the constitution of a combatant force that exists should be absorbed, were inducements of a more encouraging character held out, in the volunteer corps established at Rangoon and Moulmein respectively.

5. In reference to Akyab and Bassein, the materials for defence are so sparse as to give, for the present at least, small hope of anything of practical defensive utility being evolved from them.

6. The remaining eleven districts, with an average of less than 9 Europeans and about 40 Eurasians, are outside the pale of consideration, inasmuch as they would have probably to be protected in time of trouble, instead of rendering any assistance.

7. As to paragraph II, viewing the question as bearing solely on Europeans and Eurasians, it is very questionable, even were the materials sufficiently abundant, to invite the experiment, whether compulsory enrolment would be expedient; and, unless in the districts of Rangoon and Moulmein, it would afford practically no benefit, and at Akyab, Bassein, Prome, and Henzada, where the result would be insignificant.

8. Regarding paragraph III, much might be done at Rangoon and Moulmein to develop the volunteer system, but not under the existing regulations, which are rather deterrent than inviting; where, as in Burma, the expense of existence is so considerable, and the pressing business avocations of the

people are such as at all events to withhold from joining the movement those calculated to influence others to do so. This will appear clear when, as in Rangoon, out of 628 Europeans and 3,342 Eurasians, only some 260 are found enrolled in the volunteers; and it is with difficulty that more than 135 can be mustered, even on special occasions. In the case of Moulmein, a total strength of about 137 has been reached, out of 269 Europeans and 1,010 Eurasians.

9. To impart an element of popularity to the volunteer system, the capitation grant should be increased, and pecuniary rewards distributed to those who attend drill regularly, and evince efficiency and zeal; or other inducements of a practical nature held out to them to join. The proposed administrative battalion, composed of the Rangoon volunteers, the partially-formed Railway corps, and the corps not yet started at Akyab, would appear a good idea to develop, as conducing to emulation, and ensuring at the same time a more searching and comprehensive system of inspection than is feasible under mere local supervision.

10. Lastly (paragraph IV), with reference to the general military requirements of the province, the Major-General recently conveyed his ideas in full on this subject to Madras Army Head-quarters in his letter No. 127G. of the 7th of last June, of which a copy was transmitted to the Chief Commissioner for information; and although that letter viewed the question on the supposition of affairs being unsettled, yet the Major-General considers the force therein detailed should constitute, if possible, the permanent garrison for some years of British Burma, and thus obviate the necessity of calling for assistance in a hurry, whenever any disturbing influence might arise. It will be observed that the distribution detailed in the above-quoted letter aims especially to apportioning entire units as far as practicable to the different stations, which is a matter of material consideration, so far as efficiency of corps and compactness of commands are concerned; and in Burma particularly, where the climate is enervating, and much of the year unsuited, either through intense heat or persistent rain, for out-of-door exercise, the temptations to relaxation of discipline are very great, and the *morale* of the troops becomes affected. A glance at the crime-list of the garrison of Burma will render apparent the truth of these remarks. It will be seen in the general order by His Excellency the Governor-General of India, No. 20A. of 1861, that the infantry detailed for Thayetmyo as the minimum for efficiency was one battalion of Europeans and two battalions of Natives, which in those days represented a force numerically far stronger than now, when the cadre of regiments has been so much diminished. The reduction of the forces in Pegu (the term then used) was made at a time when an enduring quiet seemed settled over the province, and was the result of much deliberation. The Commission had the benefit of the experience of Lieutenant-General Sir Patrick Grant, K.C.B., whose advice was, as stated by the Supreme Government, of material assistance in "combining a scheme of reduced military expenditure with efficiency." Since those days the population and importance of British Burma have, certainly in the latter particular, vastly increased, and, with them, the responsibility of the trust has materially augmented. Thus to be on the safe side, and to avert risk to the interests of the empire, as well as to secure for the future confidence in the imperial sway, an efficient garrison at each of the important stations of Rangoon, Thayetmyo, and Toungoo should be maintained, as specified in the Major-General's letter referred to. As to (b), paragraph IV, *viz.*, the internal and external military purposes of the garrison, I am desired to say that the Major-General considers the principles advocated in No. 3982, Proceedings of Military Finance Department, Calcutta, 21st February 1861, should obtain to the utmost in this province—namely, that the maintenance of internal order should be assigned to the civil constabulary, and the troops solely employed on military services, such as repelling armed aggression, whether proceeding from external or internal sources.

## M.—ANDAMANS.

No. 384-394G., dated Port Blair, 15th August 1879.

From—LIEUT.-GENERAL C. A. BARWELL, C.B., Chief Commissioner and Supdt., Andaman and Nicobar Islands.

To—The President, Army Organization Commission, Simla.

In accordance with the instructions given in letter No. 205 S.B., dated Simla, July 7th, 1879, from the Secretary to the Government of India in the Military Department, I have the honor to furnish the following information.

		Port Blair.	Nicobars.
<i>Convicts.</i>			
Male	...	8,957	187
Female	...	985	...
	Total	9,942	187
<i>Con. released Convicts.</i>			
Male	...	196	...
Female	...	39	...
	Total	235	...

### *Strength of Native population.*

The Native population consists almost entirely of convicts and conditionally released convicts, the numbers of which are marginally given. The free Native population, exclusive of army, is too insignificant to require any consideration in this report.

### *Strength of European and Eurasian population (exclusive of army).*

Is composed entirely of Government officials, few in number.

### *State of feeling and elements of danger.*

With so large a number of convicts, in an isolated situation, the elements of danger must always be considerable. Hitherto, however, there have been no outbreaks, excepting with the view to escape, and the parties concerned have been speedily arrested.

*Strength of police.*  
*Distribution of police.*  
*Efficiency of police.*

The strength and distribution of the police are shown in tabular statement marked A. As an armed force, for general protective purposes, I consider it to be efficient and trustworthy.

2. As regards the general military requirements of the Settlements, the present force consists of—

	Total of all ranks.
A detachment of European Infantry ... ..	140
A regiment of Madras Native infantry ... ..	709

which is quite sufficient.

These troops are kept as a reserve, in readiness to be called out in case of emergency; but they take no duties other than regimental, excepting the following:—

	N. C. O.	Privates.			
European infantry ...	1	9	On Ross Island.	}	Main guard, giving sentries at Chief Commissioner's house and office.* Guard over Commissariat store godowns. Guard over treasury.†
Native infantry ...	1	9			
Native infantry ...	1	6			

*N.B.*—A small sum of money is kept here†, the bulk of the money amounting to about one lakh of rupees being kept in a strong room attached to the Chief Commissioner's office, guarded by the European sentries above referred to.\*

3. The whole of the duties therefore, such as the provision of jetty guards for the protection of boats, settlement officers' guards, and orderlies, escorts, &c., devolve on the police, who have also during eight months of the year to guard the transportation prisoners of the season *en route* from Calcutta to Port Blair.

4. The police are in fact perpetually on duty, whilst the troops lead a life of comparative ease.

5. In order to remedy this, and to lessen very considerably the heavy cost of the present establishment, I have the honor to make the following proposals:—

(a) Ross Island (the head-quarters of the Port Blair Settlement) should retain its present garrison of European and Native infantry, which would furnish the guards it now does and be available as a reserve for use in any other part of the Settlement in case of need.

(b) At all other stations I would have police only, who, in addition to performing their present duties, should have a sufficiently large reserve to occupy the positions now held by the several detachments of Native infantry.

6. Statement A gives detailed particulars of the present and proposed distribution of the military and police forces for the Settlements at Port Blair and the Nicobars.

Statement B the present and proposed strength and cost of the police force.

Statement C the saving that could be effected by garrisoning the Settlements at Port Blair and the Nicobars with two companies of a Native infantry regiment and an increased police force, instead of with a whole Native regiment and the present force of police, amounting to about one lakh and twenty-seven thousand rupees per annum.

There would also be a further saving in the cost of the clothing for the Native infantry and the expenses connected with its periodical relief.

7. After very careful consideration and inquiry, I am satisfied that, with the small military reserve which I propose to retain, and a well-organized police force of the strength recommended, under an experienced district superintendent (who should be a military officer), due provision will be made for the safety of these Settlements.

*Statement A showing the present and proposed distribution of the military and police forces for Port Blair and the Nicobars.*

Station.	PRESENT.					PROPOSED.					Remarks.
	European infantry.	Native infantry.	Police officers.	Police sergeants.	Police constables.	European infantry.	Native infantry.	Police officers.	Police sergeants.	Police constables.	
Ross ...	140	210	1	2	79	140	2 companies.*	1	3	80	* Under a European officer.  † Only those who require change for the benefit of their health.
Aberdeen ...	...	269	1	1	42	...	...	3	8	173	
Haddo ...	...	...	5	9	86	...	...	3	7	104	
Navy Bay ...	...	35	...	1	16	...	...	1	3	50	
Mount Harriet ...	...	27	...	...	...	...	...	1	2	24	
Chatham ...	...	...	...	1	23	...	...	...	1	23	
Port Moutat ...	...	...	...	1	10	...	...	...	2	20	
Viper ...	...	121	...	2	55	...	...	1	4	100	
Hope Town & Phoenix Bay ...	...	...	...	2	19	...	...	...	2	19	
Nicobars ...	...	47	...	2	24	...	...	1	5	50	
On leave ...	...	†	...	1	29	...	...	1	3	50	
<b>Total ...</b>	<b>140</b>	<b>709</b>	<b>5</b>	<b>22</b>	<b>383</b>	<b>140</b>	<b>2 companies.</b>	<b>12</b>	<b>40</b>	<b>693</b>	

*N.B.*—In the numbers given under the headings of European and Native infantry, all ranks are included.

Statement B showing present and proposed strength and cost of the Andaman and Nicobar Police.

	District Superintendent on Rs. 500.	Inspectors on Rs. 150.	Sub-Inspector on Rs. 110.	Sub-Inspector on Rs. 100.	Chief Constable on Rs. 86.	Chief Constable on Rs. 86.	Chief Constable on Rs. 80.	Sergeants on Rs. 40.	Sergeants on Rs. 30.	Sergeants on Rs. 25.	Constables on Rs. 20.	Constables on Rs. 15.	Constables on Rs. 12.	Total monthly cost.	Total annual cost.	Contingent charges per annum.	Clothing charges per annum.	Grand total annual cost.	Remarks.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Present ...	1	1	1	1	1	...	11	11	...	*33	350	...	...	7,220 0	86,040 0	†1,990 0	5,900 0	93,820 0	* Includes the Chief Commissioner's boat's crew.
Proposed ...	1	2	1	1	1	2	5	10	10	20	*13	300	380	12,386 0	1,48,740 0	†1,990 0	10,995 0	1,61,715 0	† Includes rations supplied to Chief Commissioner's boat's crew

N.B.—A Native doctor and an armourer should also be provided for. This only occurred to me after the statement had been prepared.

Statement C showing proposed saving by garrisoning Port Blair and the Nicobars with two companies of a Native infantry regiment and an increased police force, instead of with a Native regiment and the present force of police.

	Pay and allowances of all ranks of the Native infantry per annum.	Value of rations supplied to the Native infantry per annum.	Cost of police per annum, inclusive of all charges.	Total annual cost.	Proposed saving.	Remarks.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Present ...	1,90,633 12 0	62,489 12 4	98,820 0 0	3,36,940 8 4	.....	The cost of clothing of the Native infantry and the expenses of relief are not shown, as the information is not obtainable.
Proposed ...	* 82,589 14 0	15,621 11 1	1,61,715 0 0	2,09,917 0 1	1,27,023 15 3	

\* Includes the pay of one European officer.

C. A. BARWELL, *Lieut.-Genl.*,  
Chief Commr. and Supdt., Andaman and Nicobar Islands.

### APPENDIX III.

Replies and Opinions of the Commanders-in-Chief in India, Madras, and Bombay, the Governor of Bombay, and the Lieutenant-Governor of the Punjab to the questions proposed by the Commission.\*

#### I.

#### ADMINISTRATION AND ORGANIZATION.

Replies by His Excellency General Sir Fred. P. Haines, G.C.B., G.C.S.I., C.I.E., Commander-in-Chief in India.

#### QUESTIONS.

1. What, in your Excellency's opinion, should be the full war establishment of the army of India, calculated under the two heads—

- (a) The number of troops that India ought to be able to place and maintain in the field for service wherever required?  
(b) The garrisons and reserves to be maintained?

#### ANSWERS.

1. (a) About 65,000 men should be available for field service and for the reserve. The Commission no doubt has before it Lord Napier of Magdala's memorandum on our military position in India, and the arrangements that would seem necessary under certain specified circumstances. These circumstances we have yet to face. The Afghan campaign of 1878-79 has not lessened the gravity of the situation to such an extent as to enable us to say that a smaller force than that contemplated by His Lordship would enable us to deal with it.

(b) I have recently submitted to Government a scheme for the redistribution of the Bengal army. I can think of no other which will provide equally well for cantoning our troops in time of peace or for holding them in readiness for mobilization in time of emergency, viewed with reference to existing accommodation for troops.

\* Files of the questions proposed by the Commission to the Commanders-in-Chief were also sent to all Governments and Administrations, but the above alone have replied.

## QUESTIONS.

2. What, in your Excellency's opinion, should be the organization of the army of India? Is it necessary, in the present circumstances of the country, to maintain the three presidential armies under three separate Governments and three Commanders-in-Chief, with three large staffs and separate departments?

3. Could not all the advantages of separate armies be secured with a great increase of efficiency and economy by forming the entire army of India into one army, under one Commander-in-Chief, and dividing it into four army-corps; each army-corps to be under the command of a lieutenant-general, and to be entirely complete and self-contained in respect of organization, arms and equipment?

The lieutenant-general to be vested with complete powers of control and to be responsible for the appointment of all regimental officers, subject only to the confirmation of the Commander-in-Chief for India in respect to the nomination of officers commanding regiments.

The officers of all the army-corps to be equally eligible for service on the staff of the army.

The army-corps to be territorial and localized—one in the north, one in the south, one in the east, and one in the west. The army-corps of the south and west to be, as far as practicable, recruited from the districts from which the present armies of Madras and Bombay are now recruited, thus maintaining four armies distinct in race, religion, and language, but so organized as to be practically in a state of thorough efficiency and readiness for action in any direction in which the army of India may be called upon to undertake separate or combined operations under the Commander-in-Chief of India.

What should be the strength of each army-corps?

6. Setting aside historical sentiment, and looking to the relative importance, the population, and the wealth of the various local Governments of India, is there any more reason why the armies of Madras and Bombay should at the present time be under the local Governments of Madras and Bombay and under local Commanders-in-Chief, with separate departments for every branch of military administration, than there is that the same system should be followed in the Lower Provinces of Bengal, the North-Western Provinces, and the Punjab?

## ANSWERS.

2. I consider that the three armies as they stand, separate and distinct the one from the other, should be maintained under the three separate Governments and three Commanders-in-Chief; each army complete in itself as to its staff and departments.

3. I do not consider that either economy or increased efficiency would be secured by the establishment of four army-corps, each under a lieutenant-general. Being distinctly opposed to any such organization, I shall not discuss the subjects in questions 4 and 5, which can only be usefully answered by those who are prepared to accept the establishment of four armies instead of three. But I would wish to state that three armies under their separate Governments and Commanders-in-Chief are now, and always have been, as much at the disposal of the Government of India and the Commander-in-Chief as they could possibly have been if they had the organization now proposed. Each army is complete in itself and self-contained in respect of organization, arms, equipments, and supply of all military stores and munitions of war. For these purposes, I consider that decentralization is carried far enough, and that to increase the sub-division of centres of armament and administration from three parts to four is quite unnecessary, and not in my mind calculated to insure increased efficiency. The three armies are at all times in a state of thorough efficiency and readiness for action in any direction, whether separate or combined. That is to say, ready so far as armies can be said to be ready when so small a proportion of transport is maintained, when the commissariat and ordnance establishments are kept so low as barely to suffice for the performance of duties in time of peace.

6. In this question I am asked to set aside historical sentiment. How far this can be done depends upon the idiosyncrasy of the individual; but in any case we cannot put aside historical facts or the impressions they create. The armies of India have grown with the growth of our Empire. That of Bengal had the larger growth. It has been impelled by force of circumstances to leave the cradle of its birth, and to advance step by step northward, until it now stands in the Khyber, on the crests of the Shutar Gardan and of the Khojak. There has never been a question of an army for the province of Bengal; and I do not see how it can arise. As long as it could, the Bengal army provided for the wants of that province. It is now mainly, and I think fitly, held by Madras troops. The population, seething though it be as to numbers, is singularly unwarlike. The communications with our great military centres are so good, that all possible demands can easily be met. I think therefore that the question as put has no very practical bearing on military efficiency. Bengal, the North-West, and the Punjab are modern expressions as local Governments, the establishment of which, we may hope, will turn out a comparatively perfect system of civil administration. They are the outcome of peace; with war they have no concern. The Madras and Bombay armies have had no small share in creating the Empire of British India, and, like that of Bengal, have spread over immense tracts of country. The magnitude of their military charge is not to be measured by the square mileage of their own provinces, by the density of their population, or by the amount of revenue collected. That of Madras, for instance, has within its military area, though excluded from that of its civil administration, Mysore, the territories of the Nizam, and the Central Provinces. It is assumed that the population of Madras is essentially peaceful; but this is not the case even within its own provinces. The Polygars of the south are not to be implicitly relied on; the Moplas of Malabar are extremely dangerous, constantly giving rise to coercive measures; that the Northern Circars require troops and are beyond police control we have present evidence. The Ceded Districts also have elements of trouble within them. The Mysore territory has its turbulent population,



## QUESTIONS.

## ANSWERS.

especially in Nuggur: in this province arose the disturbances which ended in the assumption by the British of the administration of the country. Mysore is about to be restored to Native rule—an experiment which requires to be watched. Coorg also has an armed population. But the sorest spot within the limit of Madras military government is Hyderabad in the Deccan. This is notoriously the resort of outlaws and desperadoes of all sorts. In addition to this semi-criminal class, there is a large body of partially organized troops and irregular bands of Arabs, Rohillas, and Sikhs in the pay both of the Nizam and of his nobles. This is a hotbed of mischief: however we may despise even the best organized of these armed men, they require a large force to watch them. The military demands from the Central Provinces are not excessive.

The scope of action of the Madras army does not march with the civil administration, and therefore the force necessary to be maintained and its *raison d'être* cannot in reason be referred to the population, revenue, or extent of the provinces of Madras Proper. But it is clear to my mind that these extraneous matters are better dealt with by that army, which has in the course of time grown up in their midst, than by any other means. The Madras administrators who have advocated reduction have always excluded from their calculations these foreign demands, giving the discussion an unpractical turn; for the Madras military liability ranges from Cape Comorin to Cuttack on the east coast, to North Canara on the west, and skirting the Bombay boundary to Nagpore to the north. This under ordinary circumstances: for many years Sangor has been added to its liabilities.

It must be remembered that we hold the Berars, and have in old days received other territories as payment for the Hyderabad Subsidiary Force and for the Contingent; that we receive a subsidy from Mysore for the maintenance of the troops in that province; and I believe some slight payment from the Maharaja of Travancore for the regiment at Quilon, so that the military burdens imposed upon us by those States are by no means so heavy as a calculation of the cost of so many regiments and batteries would imply; but no credits on account of these transactions appear in the military budgets.

I am altogether in favor of retaining the armies of Madras and Bombay on their present footing: they have stood the test of time, and have been found equal to every strain. No doubt the existence of these separate Governments having under them armies separate and distinct from that of Bengal as to race, religion, customs, and interests has proved the strongest element of safety to the empire, and may do so again. I am specially opposed to the formation of a localized and a locally-recruited army-corps for the Punjab, which I infer No. 4 army-corps would be. It would be an impolitic arrangement to have the Punjab element predominant in the north. Then, again, it would tend to localize the Hindustani element too much in its own home districts; it would lessen the general range of relief—an objection in a sanitary as well as in a political point of view. I trust no step will be taken towards forming two army-corps out of the Bengal army.

7. As a matter of fact, if a large reserve for the northern armies is to be maintained, is it not the duty of Government to see that this reserve is formed of the most efficient fighting men whom it is possible to procure and to maintain with due regard to the admitted necessity of keeping up armies of different races and religions and with due regard to the safety of the Empire?

Does your Excellency look upon the Madras and Bombay armies in their present organization as constituting the most efficient reserve for the armies of Upper India?

7. Madras has ever been spoken of as the army of reserve, and rightly so; but it must always be remembered that Madras has a front of her own on which Bengal and Bombay must be considered as her support. She must always be called upon to furnish the main force for eventualities in the Eastern Seas, Burma, China, and the Straits. Now less than ever can Bengal troops be made available on those fields. To Madras this zone of operations must be confided; and that army must, in my opinion, be maintained at such a strength as to enable it to take this responsibility on itself and to enable the local Government to provide for the comparatively heavy calls for foreign service its troops have to meet in ordinary times.

Bombay likewise has a front of its own, notably the Western Seas, the Persian Gulf, and Sind as regards the Kandahar line, where her troops, conjointly with those of Bengal, must inevitably be employed should emergency

## QUESTIONS.

## ANSWERS.

arise. It is incorrect to look upon these armies as merely armies of reserve; but as such I would say that India cannot be supplied with a safer or more efficient army of reserve. Distinct in race, language, and interests from the more numerous army of Bengal, it is, in my opinion, eminently politic and wise to maintain these armies as a counterpoise to it; and I would on no account diminish their strength in order that a reserve composed of what is called "the most efficient fighting men whom it is possible to procure" may be established. If by this it is meant to replace the sepoys of Madras and Bombay by a reserve of men passed through the ranks of the Bengal army, and composed of the same classes of which it is formed, I would say that anything more unwise or more impolitic could hardly be conceived.

It has been customary to declare that the Madras army is composed of men physically inferior to those of the Bengal army; and if stature alone be taken into consideration, this is true. It is also said that by the force of circumstances the martial feeling and the characteristics necessary to the real soldier are no longer to be found in its ranks. I feel bound to reject the above assertions and others which ascribe comparative inefficiency to the Madras troops. It is true that in recent years they have seen but little service; for, with the exception of the sappers, they have been specially excluded from all participation in work in the field. I cannot admit for one moment that anything has occurred to disclose the fact that the Madras sepoy is inferior as a fighting man. The facts of history warrant us in assuming the contrary. In drill, training, and discipline the Madras sepoy is inferior to none; while in point of health, as exhibited by returns, he compares favorably with his neighbours. This has been manifested by the sappers and their followers in the Khyber; and the sappers are of the same race as the sepoys. I have no doubt all I have said for Madras may be urged equally justly for Bombay. I therefore have no hesitation in saying that the Madras and Bombay armies form the safest and most efficient reserves for the army of Upper India.

8. What is the feeling of the <sup>Madras</sup><sub>Bombay</sub> army in respect to employment in other presidencies in India in times of peace? For instance, at the present time 26 regiments of the Madras army are employed within their own presidency and no less than 14 outside its limits, some of them at distant stations in Bengal. Is this service popular with the army? Are the Madras regiments more efficient than the Bengal regiments, or are they when on this duty cheaper, the cost of relief, transport, of clothing, equipments, and compensation for food being taken into account? If they are neither cheaper nor more efficient, is there any object in garrisoning Bengal and Burma partly from the Madras army?

8. I have no reason to suppose that the employment of the Madras army in other presidencies or abroad in Burma, or for purposes of field service in any part of the world, is in any way unpopular with them. From the desire always evinced by these men to see service, by the alacrity with which men from the three armies embarked for the somewhat mysterious expedition despatched from Bombay in May 1878, and from the enthusiasm displayed in Madras and Bombay when their regiments were recently required to join their comrades of Bengal in the North-West, I would say that this class of service is eminently popular in those armies. I take it that these manifestations of spirit go some way to refute the assertion that martial feeling and characteristics necessary to the real soldier are no longer to be found in the ranks of those armies.

I claim no superior efficiency for the Madras army over that of Bengal in the performance of any duty; but it is most fortunate that we have Madras regiments available for the performance of garrison duty in Saugor and Bengal, now that the Bengal army is not strong enough to take it.

The remainder of question 8 refers to figures, which experts will more readily supply.

9. Is your Excellency aware of any difficulty in obtaining recruits for the army of a good class of healthy strong young men of the agricultural population physically qualified to perform the duties of a soldier?

10. Has it ever been asserted that a difficulty in obtaining efficient recruits is attributable to the unpopularity of the service of the local army beyond the limits of its own presidency in times of peace?

9 & 10. The system of recruiting is strictly regimental. Some regiments are more successful than others; but I do not think that any extraordinary difficulty exists in getting a good class of recruits, beyond that which has been created by the construction of railway and other large public works. As in England, competition for labor has a somewhat adverse effect on recruiting. I would refer for figures and for precise information on this head to Major-General Sir Peter Lumsden, Adjutant-General, a member of the Commission.

11. If your Excellency is of opinion that the army-corps should be formed territorially, and as far as possible localized within its territorial area, what alteration would you propose in the strength of the various armies to render them fit for their home duties, and to place them in a position to take part in any war going on in India by the detachment of a force of all arms?

11. On No. 11 I have nothing to say, being opposed to the whole scheme.

## QUESTIONS.

## ANSWERS.

12. Could not the duties of the Native army be very materially decreased by a general concentration of troops in large centres in the neighbourhood of railways, thus abolishing all small cantonments and outlying and isolated stations?

12. No doubt the duties of the Native army might be materially decreased by a general concentration of troops in large centres; but I imagine that the enormous outlay which would be caused by the construction of barracks and the large amount of subsidiary buildings which are required to complete the accommodation of a British regiment must, once for all, be held to negative any attempt to carry out such a measure, notwithstanding many advantages which would undoubtedly be derived from it. It appears to me that the existing accommodation, on which such an enormous sum of money has been expended, ties us down somewhat to the scheme of distribution of the army as it now stands. Some trifling alterations of detachments and of the smaller cantonments may be found feasible when the recommendations of the Commission are placed before Government; but, as at present informed, I can suggest none which will materially affect the strength or disposition of the army.

14. Recognizing the fact that India cannot afford to maintain the most perfect army which could be devised in which economy did not enter, and that large reductions of army expenditure are absolutely essential, what changes and alterations would your Excellency be prepared to recommend in the organization and administration of the army?

14. The fact which I recognize more clearly and distinctly than any other is this—that the strength of our armies in India is not in any way greater than that which our foreign and domestic liabilities require us to keep up. Without large reductions in strength, I see no source from which economies can be effected. I am prepared with no scheme for reorganization and administration of the army in this sense. Indeed, such modifications as I should be prepared to recommend would have the effect of increasing the expenditure, to wit, an increase of British officers to Native regiments.

15. Are you in favor of amalgamating the Adjutant General and Quartermaster General's departments under a Chief of the Staff, so that, as in other armies, the staff of the army shall consist of certain grades of staff officers, the work being apportioned as may be desirable, but without a division, as at present, into two distinct departments?

15. I am greatly in favor of retaining the Adjutant General and Quartermaster General's departments separate and distinct, as at present. Personally, I consider this method far preferable for the transaction of current work to the system which amalgamation would create. There are extremely few points on which joint action of the departments is necessary; and these are so evident that it can seldom happen that the departments would fail to communicate with each other, and the Commander-in-Chief fail to see the necessity of bringing them together.

In the prosecution of a campaign it is necessary that the Commander-in-Chief should daily see the Adjutant General and the Quartermaster General together; for on such an occasion almost everything that occurs affects both departments. One of these officers naturally becomes the Commander-in-Chief's most confidential adviser, and thus becomes Chief of the Staff, not by virtue of any special appointment, but by force of character, knowledge, and general ability; and this I consider to be far preferable to the appointment of a Chief of the Staff, for either he becomes the fifth wheel of the coach, as was the case in Spain, when it was sought to impose a Chief of the Staff on the Duke of Wellington, but with whom he positively refused to act, or the Commander-in-Chief is in the opinion of the army relegated to that most undesirable position.

There is another reason why I greatly prefer to work with two departments unbracketed by a Chief of the Staff. All correspondence from England reaches me in that form; and it is more convenient to issue the necessary orders in the same channel as that from which it reaches me. Custom may have much to say to the formation of this predilection; but the business of the army flows so smoothly and evenly through these channels from and to the Commander-in-Chief, that I should regret the intervention between him and them of any other authority: I could even say obstruction, for I believe by the creation of a Chief of the Staff business would be rather obstructed than facilitated.

The business as now must be prepared departmentally, but will be submitted first to the Chief of the Staff, then to the Commander-in-Chief, introducing a third action where two are amply sufficient. If it is said the Chief of the Staff can dispose of much that now comes before the Commander-in-Chief, I would say that it will be done in supersession of the Commander-in-Chief; for the Adjutant General and Quartermaster General now have full power to dispose of matters

## QUESTIONS.

## ANSWERS.

16. If the army were divided into army-corps, and power given to the lieutenant-generals commanding to dispose of many questions which are now referred to superior authority, so that important matters only were treated of by the central military authority at head-quarters, would not a staff of about the following strength be sufficient :—

*Head-Quarters.*

- 1 Chief of the Staff.
- 4 Officers of the General Staff.
- 3 Officers of the General Staff for intelligence duties.
- 1 Officer of the General Staff for Royal Artillery to be Inspector General of Artillery, with two staff officers.
- 1 Officer of the General Staff for Royal Engineers.
- 1 Officer of the General Staff for Musketry Inspection, &c.
- 1 Judge Advocate General.

*Army-Corps.*

- 1 Chief of the Staff.
  - 2 Officers of the General Staff.
  - 1 Staff Officer of Royal Artillery.
  - 1 Staff Officer of Royal Engineers to be Deputy Inspector General of Engineers, Military Works and Fortifications.
  - 1 Deputy Judge Advocate General.
- Departmental staff officers in addition to be under the Chief of the Staff of the Army-Corps.
17. If your Excellency does not approve of this arrangement either in strength of *personnel* or nomenclature, what would your Excellency propose ?

SIMLA ;  
The 31st August 1879. }

of detail and those on which previous rulings have been given. I require no further relief in this direction.

A Commission is now sitting in England: if it be decided so to alter the military administration of the army as to supersede in the exercise of their present high functions the Adjutant General and Quartermaster General, the change must of necessity be made here. The system adopted in the Horse Guards should govern us in this respect.

16. I have nothing to say under this head, objecting to the army-corps system.

17. I have nothing to say under this head, objecting to the army-corps system.

(Sd.) FRED. HAINES, *Genl.*,  
Commander-in-Chief in India.

## QUESTIONS.

## ANSWERS.

18. Does Your Excellency consider that it would be advisable to place the administration of the Royal Artillery in India more directly under the Adjutant General or Chief of the Staff, as is the case with the other arms, the Adjutant General being provided with assistance in special artillery questions or technical subjects in the person of the Inspector General of Artillery ?

19. Would it not be in all respects a more efficient arrangement if the Inspector General of Artillery acted as the Artillery adviser of the Commander-in-Chief, the Inspector General having two staff officers to assist him, one of whom should carry out the duties now performed by the present Deputy Adjutant General of Royal Artillery in India; or, in other words, the amalgamation of the offices of Inspector General of Royal Artillery and Deputy Adjutant General of Royal Artillery effected, making the former the head Staff Officer of Artillery in India, and associating with him two staff officers of Artillery in India, who would carry on the work under him.

18. The administration of the Royal Artillery is directly under the Adjutant General of the Army now. The Deputy Adjutant General, Royal Artillery, is head of a branch of the Adjutant General's Department, the work of which is kept separate and distinct from that of other branches, except in matters of discipline. It is essential that it should be so maintained.

19. When present at head-quarters, the Inspector General's advice is always available; and he is frequently referred to with advantage. But I do not think it would be found advantageous to the service that he should be drafted into the Adjutant General's Department as part of that establishment. The duties of the Inspector General of Artillery are those of inspection. In the performance of this duty, he ranges from Aden to Toungoo, involving long and uncertain periods of absence from head-quarters. His duty is of the most important kind, and its results are most valuable, as his inspection is of so minute a nature as to detect the slightest deviation from regulation in all points of equipment such as might easily escape the eye of an infantry or cavalry general. It is calculated to curb the introduction by divisional commanders of royal artillery of pet methods of packing wagons, adjusting harness, allotment of ammunition, &c., which they, having advocated before committees or by report, and failed to secure their adoption, might still like to see introduced in their own little circle, to the destruction of that perfect uniformity which must be insisted on. If

## QUESTIONS.

## ANSWERS.

20. In your relations as Commander-in-Chief with the Military Department of Government, does your experience suggest any modifications of procedure or other matter tending to facilitate business, reduce expenditure, or add to general efficiency of administration?

21. Does your Excellency think that the departments of Ordnance, Military Works, Commissariat, and Military Accounts should be brought more *en rapport* with the Commander-in-Chief; and if so, will you suggest the mode of giving effect to your views?

22. Does your Excellency consider it an advantage or otherwise to have three separate departments of Commissariat, Ordnance, Medical, Clothing, &c., for the work of the army of India?

any part of the duties of the Adjutant General's office be entrusted to him, it can only be for six months, another system prevailing during the remainder of the year. This, I hold, would be a most inconvenient method of carrying on the Artillery branch of the Adjutant General's office, as it would give it an uncertain and inconstant head. Greatly as I value the privilege of resorting to the Inspector General of Royal Artillery for advice, and valuable as it certainly is, I value his work in his own substantive duties of inspection at a still higher rate. There seems to be no question of economy involved. I prefer things as they are to any possible modification of them which has as yet suggested itself to my mind or to that indicated by the question.

20. On this I have nothing to say as to the routine of departmental office work. What I may have to say outside of it I shall record when the report of the Commission comes up for review.

21. The Ordnance, Commissariat, and Military Works are the great spending departments of the army. The department of Military Accounts is that which controls and accounts for the expenditure under the above and other heads. For the transaction of ordinary business, I do not think it advisable that these branches of the service should be placed more directly under the Commander-in-Chief. Concerning all matters relating to construction of vehicles, armament, and equipment of artillery, the Commander-in-Chief is in close communication with the Inspector General of Ordnance. The factories must always be matters of deep interest to him, but the control over them should rest in the hands of Government. It is the same with the Commissariat. The Commander-in-Chief has thought general officers commanding divisions and districts sufficient control over the rationing and comfort of the troops.

In time of war the staff of these departments deputed for service should be absolutely under the control of the Commander-in-Chief through the officers commanding forces in the field.

There is no necessity for the Commander-in-Chief's interference with the Military Accounts Branch.

The modifications I propose in the working of these departments are so slight as to require no special organization. They apply only to a time of war, and will be best carried out by the abstention from all interference on the part of Government with their working in the field.

22. I consider that the separate departments of supply of munitions of war as existing in connection with the three separate armies in India are sources of power and security the value of which cannot be overrated. I would ever retain them in their integrity.

The Commissariat should be kept absolutely distinct. Each department has as much on its hands as it can well manage. The most ordinary intellect and capacity for organization would suggest the free interchange of information regarding surplus and wants which would render the one available for the supply of the other; and that is all that is necessary.

It is almost the same thing as regards the Ordnance, except in this. The annual indents for ordnance supplies should be submitted to the Government of India through the Inspector General of Ordnance in Bengal; and this is not for the purpose of picking small holes in the demand for the various items and the quantities demanded, but in order that he may assure himself that the wants of one presidency cannot be supplied from the surplus stock of the other without resort to the British market at all. But, outside of this class of supervision to be exercised by the Inspector General of Bengal under the authority of the Government of India, the Government of each presidency should be responsible for the supply of munitions of war and for the maintenance of the allotments under each head for its own army. The department in each case should be kept absolutely distinct; but so much of supervision on the part of the Bengal establishment seems to be necessary to the more perfect working of the whole. The

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## ANSWERS.

annual indents are most complicated documents, including demands for articles varying in importance and value from a tin-tack to a 9-ton gun, from a grindstone to machinery of enormous value. It is impossible that due supervision can be given to such demands except by experts. It is understood that these papers go through the Military Department now; but, as far as Madras and Bombay are concerned, do not come before the Inspector General of Ordnance for revision in the above sense. It might be interesting to the President and members of the Commission were copies of the annual ordnance indents placed before them for inspection. A glance would show that a professional review of documents such as these can alone deal with them satisfactorily.

This is the only point at which centralization appears to be at all necessary with regard to the ordnance establishments in India. It is no more wise to-day to place all our eggs in one basket than it was when our admirable military organization in India was first established.

It has been said that, with a concentration of these departments of supply, the resources of one presidency would be at the disposal of the other:—when has it been otherwise? In 1857, when Delhi, our chief arsenal in the North-West, Fatehgarh, the gun-carriage factory, Cawnpore, the leather and harness factory, were all in the hands of the mutineers, Madras supplied fourteen lakhs worth of military stores for the use of the troops in Bengal (the amount of this supply is far greater than the same sum would now represent). Communications were interrupted, except by sea; and Madras became in a measure the base for operations against Cawnpore and Lucknow. Could more prompt or efficient aid have been rendered under a more completely centralized system of organization than that rendered by Madras in her independence?

True the system of railways has been greatly extended since then. But is it not true that an outburst similar to that which occurred in 1857 would inevitably cause a similar dislocation of our military system, of our means of communication, whether as regards locomotion or transmission of intelligence? Most of the arguments in favor of army reduction and of centralization of departments of supply are grounded on our possession and enjoyment of these improved conditions of life and of their perpetuity. Is it safe to indulge in the hope that they will remain to us under all possible circumstances in which we may find ourselves? It is not for me to say that the internal condition of India forbids the idea that history may repeat itself, or that it suggests the possibility of a recurrence of most deplorable events. But this I would affirm, that our separate armies are water-tight compartments, which should be maintained in strength and in integrity; and that the separate establishments adverted to in question 22 are essential to the complete efficiency of those armies. Further, that as in days past they may again become main factors in maintaining our power in India.

These separate presidencies, even though isolated the one from the other by rebellion or mutiny, and consequent disturbance of lines of communication, may be looked upon as separate sources of power and independent action from which safety may spring in the face of almost desperate circumstances.

23. Is your Excellency of opinion that any reduction can be made in the number or class of British troops serving in India? Could India dispense, for instance, with any regiments of infantry or cavalry or any batteries of artillery; or could garrison batteries at any station safely take the place of field batteries, or field batteries take the place of horse artillery?

23. The British force now serving in this country is, in my opinion, suitable to the work it may have to perform. It is not capable of reduction in any branch that is in a sense worthy of the consideration of the Commission. A few changes in the composition of the artillery are now about to take place; they will result in some saving, but not of any very great moment. I say this without reference to the larger savings which have recently been effected in the cost of the administration of the artillery branch of the service in India, amounting to between four and five lakhs of rupees.

24. Bearing in mind the fact that the annual cost of officers to men is as follow:—

	For a regiment, British cavalry. Rs.	For a regiment, British infantry. Rs.
Officers	1,46,797	1,43,793
Non-commissioned officers and men	1,14,081	1,76,126

is your Excellency of opinion that any change

24. The British cavalry regiments are, as they stand, too weak in rank and file for complete efficiency in the field, being mere cadres capable of expansion: hence the discrepancy in cost between officers and men; but I would retain them as they stand, for I deem it right that, at this point especially, fair consideration should be given to the share India should take in support of the general maintenance of the British empire.

## QUESTIONS.

## ANSWERS.

in the organization of regiments is possible, so as to maintain the fighting strength of the British force in India and at the same time diminish the relative cost of officers to men?

25. In your opinion is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the home army?

26. In your Excellency's opinion would it be advisable, apart from the question of reduction of the strength of the army, to modify the present proportion of British to Native troops?

27. Reviewing the Enlistment Act of 1870, together with the Regulations issued under that Act, War Office Circulars, clauses 36 and 189 of 1878, especially as applicable to India, are you of opinion that, in the event of a local force not being employed, any further modifications of existing Acts should be made?

28. Can you suggest any means by which the present cost of supplying British soldiers for service in India can be reduced without decreasing in any way their efficiency? In discussing this subject, a fair consideration must be given to the share India should take in support of the general maintenance of the British Empire.

29. There is a large staff of assistant adjutant generals and deputy assistant adjutant generals for musketry, regimental instructors, and assistant instructors of musketry, throughout India. Does not your Excellency consider that regimental instruction in musketry can be carried on by company officers as part of their ordinary military duty, and that the staff for musketry inspection can be largely reduced, the duty of inspection being carried on by generals and their staff, assisted if absolutely necessary by a specially trained officer?

30. Is any reduction in the Judge Advocate General's Department practicable by the concentration of work at head-quarters, courts-

25. I would on no account revive the local army. No one who remembers the closing scenes of the old local force could, I think, wish to see it revived. I say this with a vivid recollection of the admirable service performed by the splendid batteries and regiments of which it was composed; but I am constrained to say that, whilst their appearance and efficiency were on parade and in the field magnificent and undoubted, their discipline in quarters was not up to the mark.

26. I should not ask for additional British troops were it decided to increase the Native army to the moderate extent I deem to be necessary under the altered relations established with Afghanistan and on our north-western frontier; but under no circumstances would I reduce a man of the British army serving in India. I hold this opinion on general military grounds, irrespective of the proportions which it may be deemed necessary to maintain as between British and Native troops. I am not disposed to keep a very exact account under this head, so long as the present proportion of races is maintained in the Bengal army, and the separate armies of Madras and Bombay are maintained intact.

27. The measure which introduced limited service in lieu of enlistment for an unlimited period is one among the changes which have been introduced under the guise of military reorganization and reform which commends itself to my judgment as a manifest improvement both as regards the soldier's relation with the service and that of Government with the soldier. For Indian purposes, the nearer the conditions of service can be brought back to those contemplated by the original limited Enlistment Act the better. India has certainly no interest whatever in the modifications which have recently been introduced with a view to favoring the formation of a reserve. Her interests are mainly served by being supplied with fully-trained and mature soldiers, so that a regiment should at all times be able to take the field, reduced only by such casualties from sickness as might be expected to prevail among a body of seasoned men. The present system increases the rate enormously; for it gives us a vast proportion of immature lads to deal with. As regards re-enlistment after the first period of service, we have the working of that in our hands. It should perhaps be sparingly resorted to; but its judicious use would enable commanding officers to maintain a supply of more efficient and trustworthy non-commissioned officers than can at present be procured.

28. I believe the above measures would tend to this desirable result more than any others; for they are calculated to secure a longer period of service in India on the part of the individual soldier, thereby reducing the transport charges and also a higher standard of health, entailing a reduction in the charges for men who become non-effective from sickness. But, to derive full value in this last respect, no man should be permitted to embark for India under 21 years of age.

29. Some modification may, I think, be made in the musketry staff of the army. There is a considerable portion of the year during which their active intervention is not required; but for the musketry course, I don't think any portion of the staff can be reduced.

In the Native army there is no special musketry officer. I am clearly of opinion that the duty of instruction and independent supervision of practice cannot be intrusted to the Native officers commanding companies. Nor do I think this duty could be entirely intrusted to company officers in a British regiment, as many of them do not and cannot attain to that stage of proficiency in this important branch of military training which the rôle of instructor demands. Any change in this respect applied to British regiments should be initiated from the Horse Guards, whence is derived the whole regimental system.

30. A great deal of work in this department must of necessity come up to head-quarters; but if it is to be con-

## QUESTIONS.

martial being conducted by officers with the usual allowance for the discharge of this duty, and in very special cases by an officer deputed from head-quarters?

## ANSWERS.

concentrated, then great inconvenience and delay in the transaction of court-martial business cannot fail to be the result. Such a measure would be distinctly opposed to the line of action I have adopted, which has been one of decentralization. It is of immense advantage that crime should be dealt with promptly, and with as little correspondence as possible. In furtherance of this view, powers which can be delegated have been conferred without limit on officers commanding divisions and districts, who are in a position to deal promptly with cases which in former days were subject to reference to head-quarters. Work is now carried on with a minimum of correspondence, and with great relief to the post office in the matter of transmission backwards and forwards of extremely bulky packets.

The circles in which judge advocates perform their duties are extremely large; and I do not consider that they can be well reduced, having in view the perfect efficiency of the department. It is frequently found necessary to depute officers not in the department to conduct proceedings of courts-martial. The contingent expenses arising out of this are not insignificant; and were the principle suggested by the question adopted, they would become very large. I am entirely opposed to it, as likely to entail delay, to increase correspondence uselessly, to throw a huge mass of needless labor on the post office, and to decrease the power and responsibility of officers commanding divisions and districts regarding the punishment of crime with which it is their special province to deal up to a certain point.

SIMLA;  
The 1st October 1879. }

(Sd.) FRED. P. HAINES, *Genl.*,  
*Commander-in-Chief in India.*

NOTE.—Owing to pressure of work, His Excellency was unable to reply to any more of the questions proposed to him by the Commission.

## I.

## ADMINISTRATION AND ORGANIZATION.

Replies by His Excellency General Sir Neville Chamberlain, G. C. B., G. C. S. I., Commander-in-Chief, Madras Army.

## QUESTIONS.

1. What, in your Excellency's opinion, should be the full war establishment of the army of India calculated under the two heads—  
(a) the number of troops that India ought to be able to place and maintain in the field for service wherever required?

(b) the garrisons and reserves to be maintained?

## ANSWERS.

1. I am not able to give any definite answer to this question, not being in possession of information, without which my opinion is of no value.

The answer to (a) must depend upon whether India is to be expected to give aid to England in the event of her being engaged in an European war, or whether such aid is to be confined to Asia.

As regards an European war, it would seem to me that nothing short of 20,000 men would be of any avail, except to occupy an island, or some position where the command of the sea would secure the control of the communications.

The answer to (b) must depend upon various considerations,—

(1) on our relations with the neighbouring independent States:

(2) on the amount of interference exercised by Russia or Persia in Afghan affairs, such a contingency being beyond present calculation and control:

(3) on the extent of territory we occupy; for as we hold advanced positions on the North-West frontier, such as Lundi Kotal, Peiwar, Vitakri, Quetta, so we ought to have proportionate reserves within supporting distance:

(4) on the completion of the strategical system of railways:

(5) on the mobility of the troops after they quit the railways:

(6) on the political condition and military strength of the Feudatory States:

(7) on the administration of the country, and the state of feeling of the population:

(8) on the number and efficiency of the police.



## QUESTIONS.

2. What, in your Excellency's opinion, should be the organization of the army of India? Is it necessary, in the present circumstances of the country, to maintain the three presidential armies under three separate Governments and three Commanders-in-Chief, with three large staffs and separate departments.

## ANSWERS.

I consider that the army of India is not larger than is required under existing conditions, and to meet contingencies which may any day arise.

2. I believe it to be advisable to maintain separate Governments, with separate armies under separate Commanders.

The political necessity of keeping distinct the three armies cannot, I think, be overestimated; and I look on the separate Governments and separate Commands as guarantees towards that end. The local Governments naturally take an interest in the welfare of their own armies, and may be looked to to support their interests and their well-being; whereas without such countenance and support the army is not likely to receive the same attention and consideration. A very marked distinction exists between the people occupying the countries termed the "Madras presidency" and those occupying the other two presidencies.

This distinction is, in my opinion, of great political value; and it can best be maintained by the continuance of the separation of the Governments and of the armies. Owing to the existing means of rapid travelling, the vast size of India is apt to be forgotten. Its provinces are equal in extent and in population to European countries; and they differ as much in religion, race, and customs.

Although the three Native armies may in regard to the great principle of military organization be considered as homogeneous, still they differ greatly as to caste-prejudices and local customs, which can only be understood and controlled by local Governments and local officers intimately acquainted with their peculiarities.

If you remove this safeguard, the supreme military controlling authority will, with rare exceptions, be unable to appreciate such distinctions; and though the armies may nominally be distinct, still the tendency will always be towards uniformity; and that tendency will in the end prevail.

The Commander-in-Chief in India, even though not commanding an army-corps, will by force of circumstances pass the greater portion of his time in the northern part of India, and, as is even the case with the Viceroy, will naturally become better acquainted with, and take a greater interest in, the Northern armies than in the officers and men, whom he will be able to see but very rarely throughout his tour of service. The number of men to be visited and the distances to be compassed are too great to permit of anything more than a casual inspection; and, as above said, the Commander-in-Chief in India will naturally look to, and most consider, those with whom he is best acquainted.

Outside the question of prescribed military organization and routine, numberless questions, and especially all those bearing on expense not absolutely sanctioned by regulation but coming within their spirit, have now to be referred for the decision of the local Government; and if this court of appeal be swept away, either the decision on all such points must rest with the lieutenant-general in command of the army-corps, or every question must be referred for the decision of the Government of India.

In the provinces not included in the Madras presidency proper\* but garrisoned by Madras troops, such matters are referred to, and disposed of by, the Madras Government.

Already the Government of India has to deal with all questions connected with the whole of the Bengal army; and the minor Governments have to refer to it all matters beyond their disposal. Centralization to a certain extent is no doubt needful for the sake of preserving uniformity and to promote economy; but it cannot be wise to strain this principle by throwing upon the Supreme Government more duty than it can possibly discharge, whereby indeed the decision upon most of the references must be left in the hands of the subordinates of the department.

References of the kind require attention and occupy time; and speaking from my own experience, I should be adverse to entrusting the authority for their disposal to the general in command, being certain that much money is saved to the

\* Travancore, Cochin, Mysore, Hyderabad, the Central Province, parts of Bengal, and the North-West Provinces occupied by Madras troops, British Burma.

## QUESTIONS.

## ANSWERS.

3. Could not all the advantages of separate armies be secured with a great increase of efficiency and economy by forming the entire army of India into one army under one Commander-in-Chief, and dividing it into four army-corps? Each army-corps to be under the command of a lieutenant-general, and to be entirely complete and self-contained in respect of organization, arms, and equipment.

The lieutenant-general to be vested with complete powers of control and to be responsible for the appointment of all regimental officers, subject only to the confirmation of the Commander-in-Chief in India in respect to the nomination of officers commanding regiments.

The officers of all the army-corps to be equally eligible for service on the staff of the army.

The army-corps to be territorial and localized—one in the north, one in the south, one in the east, and one in the west. The army-corps of the south and west to be, as far as practicable recruited from the districts from which the present armies of Madras and Bombay are now recruited, thus maintaining four armies distinct in race, religion, and language, but so organized as to be practically in a state of thorough efficiency and readiness for action in any direction in which the army of India may be called upon to undertake separate or combined operations under the Commander-in-Chief of India.

What should be the strength of each army-corps?

State by the present system of supervision. It may be cumbersome and it may be tedious; but it is a safeguard, and it checks waste.

I wish it, however, to be understood that I advocate the retention of a local administrative supervision, independent of the question as to whether it should be exercised by a Governor or a Lieutenant-Governor, with or without a Council.

3. I understand that, under existing conditions, the army of India is practically under the command of the Commander-in-Chief in India. It is certainly so as regards the British forces; and though the Commander-in-Chief in India is debarred from interfering with the details of the administration of the Native troops of the presidencies of Madras and Bombay, still in all matters of importance uniformity prevails; and, even in regard to minor details, recommendations made by the Commander-in-Chief in India are constantly, under the orders of the Government of India, being made applicable to the three presidencies.

When standing orders are published by the Commander-in-Chief in India, but are not thus made applicable, it is customary for the Commanders-in-Chief of the minor presidencies to republish them, if suitable, to their own armies; whilst, if involving increased expenditure, they are referred for the sanction of the Local Governments.

I cannot see how the efficiency of the Madras and Bombay armies can be affected by changing their names to the South and West Army-Corps; though of course economy might result from reducing the salary of the officers in command, and effecting some minor reductions in the army staff, to which allusion will be made in the answer to the next question.

I have always, on political as well as military grounds, been in favor of dividing what is now called the Bengal army into two distinct portions—one to consist of the races of the north of India; the other to be drawn from the North-West Provinces and from Bengal. I do not, however, see why the Northern Army-Corps should not remain under the immediate command of the Commander-in-Chief in India. If His Excellency be relieved of any command of the kind, and the officers commanding the four army-corps are vested with full powers, it would seem to me that the head of the army would have little occupation, except during the cold weather, when carrying on his inspections. If it were considered desirable to relieve him of the duties of such a command during his tours of inspection, it would be possible to nominate a *locum tenens* to command during his absence.

If the four army-corps are to be distinct, and the officers commanding them be vested with full powers, I cannot see what advantage could be gained by referring nominations to the command of regiments to the Commander-in-Chief. His personal knowledge of the officers could be but small; and he must either be guided by the recommendation of the officer commanding the corps, or set his recommendation at naught.

I can see no object in throwing open the staff of the several army-corps to the whole army. There would be sufficient field for selection in each army-corps; and I think it would be better to restrict it to that, so as to ensure local knowledge and experience.

If the Hyderabad Contingent, the Central India Horse, and the Punjab and Sind Frontier Forces are kept distinct, as at present, the officers for them might be drawn from the army generally.

The Madras and Bombay armies are already territorial and local; and if the present Bengal army be divided into two, there will be four army-corps, each recruited from different provinces, and distinct in race, religion, and language. I do not, however, see how this division is of itself necessarily to create the thorough state of efficiency and readiness for action contemplated in the latter portion of this question.

As regards Madras, I have already in another paper given my views. As regards the Punjab, Bombay, and the North-West Provinces, I am unable to express an opinion, for the reasons given in my answer to the first question.

## QUESTIONS.

4. If such a formation of the army were adopted, would it not, in your Excellency's opinion, be possible to carry out a very material reduction in the staffs and departments, placing at the same time at the disposal of the lieutenant-general commanding army-corps a staff so efficient and complete as to enable him to relieve the Commander-in-Chief of India of much unimportant work which now comes before him.

5. Supposing such an organization to be adopted, what proportion of each army-corps should be prepared for mobilization and maintained in a state of readiness to take the field at short notice? What should be the relative proportion of each arm of the service in such active portion of each army-corps?

6. Setting aside historical sentiment, and looking to the relative importance, the population, and the wealth of the various local Governments of India, is there any more reason why the armies of Madras and Bombay should at the present time be under the local Governments of Madras and Bombay and under local Commanders-in-Chief with separate departments for every branch of military administration than there is that the same system should be followed in the Lower Provinces of Bengal, the North-Western Provinces, and the Punjab?

7. As a matter of fact, if a large reserve for the Northern armies be maintained, is it not the duty of Government to see that this reserve is formed of the most efficient fighting men whom it is possible to procure and to maintain, with due regard to the admitted necessity of keeping up armies of different races and religions, and with due regard to the safety of the empire?

## ANSWERS.

4. Some reductions might possibly be carried out; but I do not believe it would be possible to carry out a very material reduction in the staff and departments, that is to say, after placing at the disposal of the generals commanding the army-corps an efficient staff.

In this presidency I have already recommended the abolition of two district commands with their staff; and I would further propose that the general staff of the brigades named in the margin should be reduced to one officer each. If this reduction be carried out, I would allow the general officer an aide-de-camp. The State would save the difference between the staff salary of an assistant quarter master general and an aide-de-camp for each brigade.

Nagpore Force, Ceded Districts, Malabar, and Canara,

5. I am under the impression that the existing army in India is prepared for mobilization and ready to take the field at short notice, provided that it be found with carriage and supplies.

*Bangalore.*

- 2 Guns.
- 1 Troop British cavalry.
- 2 Companies British infantry.
- 2 Companies Native infantry.

*Bellary.*

- 2 Guns.
- 1 Troop Madras light cavalry.
- 3 Companies British infantry.
- 1 Wing Native infantry.

*Secunderabad.*

- 1 Field battery.
- 1 Heavy battery.
- 1 Squadron British cavalry.
- 1 Squadron Native cavalry.
- 1 Wing British infantry.
- 1 Regiment Native infantry.

*Kamptee.*

- 2 Guns.
- 1 Troop Native cavalry.
- 1 Wing British infantry.
- 1 Wing Native infantry.

In this presidency moveable columns are detailed,\* for the movement of which carriage is maintained. I consider, however, that the amount of carriage so maintained is insufficient; for, if the columns move out, not an animal nor a bearer is left to carry on the station duties. I consider that the existing moveable columns suffice for internal purposes in this presidency. I am unable to express an opinion as to the arrangements which exist in the other armies of India.

6. The Madras and Bombay armies hold the same position towards their local Governments as does the Bengal army towards the Government of India. The other local Governments mentioned in the question have been of comparatively late creations, having their origin in view to relieve the Government of India from details of administration which the growth of the empire and the elaboration of the system of government made it impossible for it to continue to discharge.

When, however, these lieutenant-governorships were formed, the Government of India retained in its own hands the decision of all matters affecting military control and military expenditure. No difference therefore exists in the system of control exercised by the Civil Government over the armies of the three presidencies. If the existing Bengal army be divided into two army-corps, a similar power of control to that now exercised by the Governments of Madras and Bombay might, I think, with advantage be conferred on the Lieutenant-Governors of the Punjab and the North-Western Provinces.

I have shown that the anomalies inferred by this question do not exist; and, as previously stated by me, I can find no real difference whether the Commanders of the Madras and Bombay armies be styled Commanders-in-Chief or Commanders of Army-Corps; but, whatever be their titles, I believe it will be best to let them have separate departments for every branch of military administration. In this presidency the wants of some 40,000 men have to be provided for. The territory is large and the distances are great. The only change that I can recommend is, that the Ordnance Department throughout India should be placed under one general head.

7. As a measure tending towards the peace of the country and security of British rule, it seems to me expedient that the general reserve should be proportionally maintained in the three armies, and therefore that it is inadvisable to give undue preference to the races possessing the most efficient fighting power. For this reason I consider that the Madras and Bombay armies should provide their share of the reserve

## QUESTIONS.

Does your Excellency look upon the Madras and Bombay armies in their present organization as constituting the most efficient reserve for the armies of Upper India?

8. What is the feeling of the <sup>Madras</sup> <sup>Bombay</sup> army in respect to employment in other presidencies in India in times of peace? For instance, at the present time 26 regiments of the Madras army are employed within their own presidency and no less than 14 outside its limits, some of them at distant stations in Bengal. Is this service popular with the army? Are the Madras regiments more efficient than the Bengal regiments; or are they when on this duty cheaper, the cost of relief, transport of clothing, equipment, and compensation for food being taken into account. If they are neither cheaper nor more efficient, is there any object in garrisoning Bengal and Burma partly from the Madras army?

9. Is your Excellency aware of any difficulty in obtaining recruits for the army of a good class of healthy, strong young men of the agricultural population physically qualified to perform the duties of a soldier?

10. Has it ever been asserted that a difficulty in obtaining efficient recruits is attributable to the unpopularity of the service of the local army beyond the limits of its own presidency in times of peace?

11. If your Excellency is of opinion that the army-corps should be formed territorially, and as far as possible localized within its territorial area, what alteration would you propose in the strength of the various armies to render them fit for their home duties, and to place them in a position to take part in any war going on in India by the detachment of a force of all arms?

12. Could not the duties of the Native army be very materially decreased by a general concentration of troops in large centres in the neighbourhood of railways, thus abolishing all small cantonments and outlying and isolated stations?

13. Would not this arrangement enable the officers commanding army-corps to make a much larger number of men available for service, and justify a very considerable reduction of troops in some parts of the country; and would it not enable the discipline, exercise, and instruction of the troops to be more effectively carried on, and render the formation of camps of exercise more feasible?

14. Recognizing the fact that India cannot afford to maintain the most perfect army which could be devised in which economy did not enter, and that large reductions of army expenditure are absolutely essential, what changes and alterations would your Excellency be prepared to recommend in the organization and administration of the army?

## ANSWERS.

for the armies of Upper India. I will give further reasons in detail for entertaining this opinion when replying to questions 5 and 6 in the paper headed III, Madras.

8. The Madras sepoy is not unwilling to be employed in other presidencies in time of peace, provided that the advantages now given him for so doing are continued, and that he be not kept too long out of the presidency. I do not consider a Madras regiment to be more efficient than a Bengal one; but I am of opinion that the loyalty of the Madras army towards the Government is less likely to be influenced by causes of a political or military character which might have their origin in the Bengal presidency, and influence the feeling and conduct of that army.

Taking into consideration cost of relief and compensation for dearthness of rice, I believe it would be cheaper to garrison

• Jubbulpore.  
Saugor.  
Banda.  
Nowgong.  
Dorunda.

† My Minute, dated 8th August 1879, in replying to questions referred by the Government of India to the Government of Fort St. George.

Minute on the employment of a regiment of Madras Native infantry in Cachar, dated 30th May 1878.

9. Yes; I brought the subject to the notice of Government in my memorandum,

‡ Memorandum by His Excellency the Commander-in-Chief to accompany the confidential reports on Native regiments for the year 1878-79, dated 14th July 1879.

with Bengal or Bombay regiments the stations noted in the margin\* now occupied by Madras troops. The object of garrisoning Burma with Madras troops will be entered upon when replying to question 2 of the paper headed III, Madras. I would also beg to refer to what I have already said on this subject in my Minutes quoted in the margin.†

subject to the notice of Government dated 28th July 1879, on the subject of recruiting. I beg to invite attention to that paper, and also to my memorandum‡ which accompanied the inspection reports.

10. See the papers above quoted in the margin.

11. Yes, I think the army-corps should be formed territorially and be localized as much as possible; but I see no objection to troops being employed out of their own territory, provided the amount of duty thus imposed on them is moderate. When troops are required for active service, each army-corps should be fairly represented. I am unable to give

My Minute, dated 8th August, in reply to the questions addressed to the Government of Fort St. George by the Government of India.

any definite answer to the latter portion of this question, except as regards the Madras army. This I have given in the paper noted in the margin.

12. I strongly advocate the concentration of troops at large stations as far as may be practicable; but I do not believe it would be politic, or even safe, to abolish all small cantonments and isolated and outlying stations. I will enter more into this subject in dealing with question 7 of the Madras paper.

13. The concentration of troops must of course make a larger number of men available for service by reducing the number of stations to be protected and the duties to be taken. It would also enable the discipline and instruction of the troops to be more efficiently carried out; but I do not believe that any concentration would justify any large reduction of troops.

14. I fully admit the urgency of reducing all military expenditure to the uttermost; and I believe that considerable reduction is feasible by a more careful control of all expenditure and by a more accurate and just distribution of charges in the various departments under the control of the Civil Government; but I do not believe in the propriety of largely reducing the rank and file of the army; for I consider that the maintenance of our position in India depends on the existence of a sufficient military force, and its being loyal and content and kept in a state of efficiency. I am not prepared

## QUESTIONS.

15. Are you in favor of amalgamating the Adjutant General and Quartermaster General's departments under a Chief of the staff, so that, as in other armies, the Staff of the Army shall consist of certain grades of staff officers, the work being apportioned as may be desirable, but without a division, as at present, into two distinct departments?

16. If the army were divided into army-corps, and power given to the lieutenant-generals commanding to dispose of many questions which are now referred to superior authority, so that important matters only were treated of by the central military authority at head-quarters, would not a staff of about the following strength be sufficient :—

*Head-quarters.*

- 1 Chief of the Staff.
- 4 Officers of the General Staff.
- 3 Officers of the General Staff for Intelligence duties.
- 1 Officer of the General Staff for Royal Artillery to be Inspector General of Artillery, with two staff officers.
- 1 Officer of the General Staff for Royal Engineers.
- 1 Officer of the General Staff for Musketry Inspection, &c.
- 1 Judge Advocate General.

*Army-corps.*

- 1 Chief of the Staff.
- 2 Officers of the General Staff.
- 1 Staff Officer of Royal Artillery.
- 1 Staff Officer of Royal Engineers, to be Deputy Inspector General of Engineers, Military Works, and Fortifications.
- 1 Deputy Judge Advocate General.
- Departmental staff officers in addition to be under the Chief of the Staff of the Army-Corps.

## ANSWERS.

to recommend any radical changes in the organization and administration of the army; but I will refer to these subjects more in detail when replying to subsequent questions.

15. I can see no advantage in amalgamating the two departments. At the head-quarters of a presidency, or of an army-corps, or of a division, the duties of each department require the services of one or more officers; and they could not therefore be amalgamated either with advantage to the despatch of business or to economy. In the smaller brigade commands where there is now an officer for each department,

\* See reply to Question 4. one officer might be able to discharge both duties; and I have suggested that this be done.\*

For an army-corps in the field, where the general's attention must be taken up with every matter bearing on the interests of his army and the larger duties he is called upon to fulfil, a Chief of the Staff would be a very useful appointment; as to him the general in command could entrust the authority to issue in his name orders on all matters of detail. But in peace time and in quarters the general officer commanding an army-corps has ample time to attend to all matters of detail; and it seems to me to be a simpler and preferable arrangement that he should transact his business direct with the Adjutant General and Quartermaster General than that he should do so through a Chief of the Staff, who would have to re-communicate the orders to each of the departments. India has never yet placed 40,000 men in the field as an united body acting under one authority, and is never likely to do so, unless it be to oppose invasion by a European power. Lord Clyde had a Chief of the Staff when in command in the field in the suppression of the mutiny, and when several columns were acting under his orders. That arrangement may have been a very suitable one, and under exceptional circumstances could again be adopted.

It has, I think, to be borne in mind that, in considering such matters as regards the Indian army, there is little or no analogy between its circumstances and those of armies in Europe. In India we have a vast peninsula to occupy under exceptional conditions, which necessitate the troops being scattered, and which make it difficult to get even 10,000 men suddenly together at one spot; whereas in Europe the armies hold a perfectly different position, and in proportion to the extent of country occupied are vastly superior in numbers.

16. If the lieutenant-generals commanding army-corps be invested with such authority as is now possessed by the Commanders-in-Chief of the minor presidencies, and the command of an army-corps be not imposed upon the Commander-in-Chief in India, then I think that a staff less numerous than that proposed in this question might suffice for head-quarters. There at present exists, in my opinion, a great deal of unnecessary correspondence, from having to refer to the Commander-in-Chief in India many matters which could equally well be decided by the Commander-in-Chief of the presidency, or which are only referred to the Commander-in-Chief in India to be passed on to the Horse Guards for the decision of the Field Marshal Commanding-in-Chief. Either the provincial Commander-in-Chief is capable of deciding them, or he is unfit for his position.

Until I am aware of what the exact function of the Commander-in-Chief in India is to be, I am unable to say what staff he would require in time of peace. In time of war it would depend on whether His Excellency was to command the army in person, or on the nature of the operations of which he had the general direction.

## QUESTIONS.

17. If your Excellency does not approve of this arrangement either in strength of *personnel* or nomenclature, what would your Excellency propose?

18. Does your Excellency consider that it would be advisable to place the administration of the Royal Artillery in India more directly under the Adjutant General or Chief of the Staff, as is the case with the other arms, the Adjutant General being provided with assistance in special Artillery questions or technical subjects in the person of the Inspector General of Artillery.

19. Would it not be in all respects a more efficient arrangement if the Inspector General of Artillery acted as the Artillery adviser of the Commander-in-Chief; the Inspector General having two staff officers to assist him, one of whom should carry out the duties now performed by the present Deputy Adjutant General of Royal Artillery in India? Or, in other words, the amalgamation of the offices of Inspector General of Royal Artillery and Deputy Adjutant General of Royal Artillery effected, making the former the head Staff Officer of Artillery in India, and associating with him two staff officers who would carry on the work under him?

20. In your relations as Commander-in-Chief with the Military Department of Government, does your experience suggest any modifications of procedure or other matter tending to facilitate business, reduce expenditure, or add to general efficiency of administration?

21. Does your Excellency think that the departments of Ordnance, Military Works, Commissariat, and Military Accounts should be brought more *en rapport* with the Commander-in-Chief; and if so, will you suggest the mode of giving effect to your views?

22. Does your Excellency consider it an advantage or otherwise to have three separate departments of Commissariat, Ordnance, Medical, Clothing, &c., &c., for the work of the army of India?

## ANSWERS.

17. As regards the staff required for an army-corps,

At present there is an Assistant Adjutant General in addition: this appointment might be abolished. Since 1861 the Quartermaster General's Department at head-quarters has been reduced by two officers.

I consider that the Madras army requires one Adjutant General, one Deputy Adjutant General, one Quartermaster General, one Deputy Quartermaster General, one Judge Advocate General, and one officer of the Royal Artillery, who, besides carrying on the duties connected with the Artillery, might give his services in the Adjutant General's office.

18. I cannot see that any good would be derived from such a change. According to the existing organization of the Royal Artillery, the duties of that branch of the service and those of the Adjutant General are, as a rule, distinct. The artillery staff officer's duties are mainly confined to questions of regimental detail; and these are more easily and quickly disposed of by direct communication with the Commander-in-Chief than would be the case if they had to go through the Adjutant General. Only questions of general importance, such as those affecting the discipline and efficiency of the army, need to go through the Adjutant General. This is the course followed in this presidency, and I believe in the other presidencies of India.

19. The Commander-in-Chief in India always has the means of consulting the Inspector General of Artillery. I am not aware of any reason why the Deputy Adjutant General, Royal Artillery, should not conduct his duties in communication with, and in subordination to, that officer; or the Inspector General of Artillery might, as suggested, be the principal Staff Officer of Artillery, and the Deputy Adjutant General be merely his assistant to carry out orders. The drawback to this arrangement is, that the Inspector General of Artillery ought to be away from head-quarters for months, carrying on his inspections, when all the duties connected with the Royal Artillery must devolve on his subordinate.

20. I cannot suggest any modification of procedure or other matter tending to facilitate business, reduce expenditure, or add to the general efficiency of administration. The present system, I think, works well, and is on the whole, I believe, conducive to economy. Either the treasury and departments of military supply must be authorized to meet all demands and pass all charges which receive the approval and sanction of the Commander-in-Chief, or such authority must continue to rest, as now, with the Civil Government. I consider the existing system the proper one. In case of emergency, when there is not time to go through the regular forms, I have never experienced any difficulty in having the wants of the army met in anticipation of the necessary sanction.

21. I have experienced no difficulty under the existing system in obtaining all required information from, or in conducting my duties with, the departments referred to in the question.

22. I consider it an advantage to have separate departments for the three presidential armies. To amalgamate them would, I believe, be creative of a vast amount of unnecessary correspondence, would weaken supervision and control, and, whilst hindering the despatch of business and reducing efficiency, would add to expense. If the Bengal army be divided into two army-corps, I would then have separate departments for each of them, one having Calcutta for its base of supply, and the other Kurrachee. According as the amount of work to be done is reduced, so may each of the establishments and salaries be proportionately reduced.

The Ordnance is the only department which, I think, can with advantage be unified under one Inspector General, with Deputies under him to carry on the duties appertaining to each presidency or army-corps. The stores in this department are of a totally different nature to those of the other branches of supply; and misappropriation or dishonesty in regard to them is less easy. They are, as a rule, received direct from England; and all that is required is to see that

## QUESTIONS.

## ANSWERS.

23. Is your Excellency of opinion that any reduction can be made in the number or class of British troops serving in India? Could India dispense, for instance, with any regiments of infantry or cavalry or any batteries of artillery; or could garrison batteries at any station safely take the place of field batteries, or field batteries take the place of horse artillery?

24. Bearing in mind the fact that the annual cost of officers to men is as follows—

	For a regiment of British cavalry. Rs.	For a regiment of British infantry. Rs.
Officers ...	1,46,797	1,43,793
Non-com- missioned officers and men ...	1,14,061	1,76,126

is your Excellency of opinion that any change in the organization of regiments is possible, so as to maintain the fighting strength of the British force in India and at the same time diminish the relative cost of officers to men?

25. In your opinion is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the Home army?

26. In your Excellency's opinion would it be advisable, apart from the question of reduction of the strength of the army, to modify the present proportion of British to Native troops?

27. Reviewing the Enlistment Act of 1870, together with the Regulations issued under that Act, War Office Circulars, clauses 36 and 189 of 1878, especially as applicable to India, are you of opinion that, in the event of a local force not being employed, any further modifications of existing Acts should be made?

28. Can you suggest any means by which the present cost of supplying British soldiers for service in India can be reduced without decreasing in any way their efficiency?

In discussing this subject, a fair consideration must be given to the share India should take in support of the general maintenance of the British empire.

they exist in proper quality and quantity at the proper arsenals and magazines, and that they are issued in accordance with regulations.

23. I have answered\* this question as regards the Madras army, and I am not now possessed of the necessary information to enable me to do so as regards the other presidencies. I would, however, urge the importance of not reducing this backbone of our power, except after the most careful consideration.

24. The statement upon which this question is framed seems to me misleading. The calculation is evidently based on the pay of each grade; but whereas the pay of the officers covers all their expense to the State, that of the men does not include the cost of their barracks, the commissariat charges, their clothing, their arms, ammunition, and accoutrements, &c., &c. If account be taken of these charges, and of the Indian allowances saved of the officers who are absent from India, the disproportion is not as represented in the question.

As far as my experience goes, I have never found a superfluity of officers with British regiments; whilst I have had to bring to the notice of superior authority that, from some cause or another, the number of officers necessary for the efficient discharge of the duty were not present. I do not believe it practicable to reduce the proportion of officers without impairing the fighting strength of regiments. The value of the men depends upon their being well-officered.

25. I am opposed to the introduction of a local British army. Any force of the kind now introduced would, in my opinion, not be held in the same estimation as the British regiments taking their ordinary tour of Indian service; consequently it would, I fear, not possess the same feeling of self-respect and *esprit de corps*. If a local force be determined upon, it might perhaps best be furnished by the second battalions of the required number of regiments being located in India; the officers being allowed to exchange, and the soldiers being, at their wish, transferred to the home battalion after a fixed period of Indian service. A system of the kind would probably best meet the disadvantages I have referred to, and also, by keeping up the home connection and feeling, lessen the risk of unpleasant consequences likely to arise out of purely local service. Economy would no doubt be obtained were a portion of the British force localized; but I think that economy had better be sought through other means.

26. Taking into consideration that the artillery in India is manned by British artillerymen, I consider that the existing proportion of one British infantry regiment to two Native infantry regiments—that is to say, the proportion of one man to two—is a suitable one. Under this condition, I think the cavalry may remain in the proportion of one British trooper to four of Native cavalry.

27. The Enlistment Act of 1870 already gives Government the power to enlist soldiers for twelve years. It seems, therefore, that there is no necessity to change the terms of the Act. All that seems necessary is, that Government should hold out sufficient inducement to the men to prolong their service on coming to India to the full period sanctioned by the terms of their engagement, and to agree to serve a certain number of years in India.

According to existing Regulations, India is called on to pay for an Imperial reserve, from which no benefit can be expected, and the cost of which her finances are unable to meet.

28. I am unable to think of any other measure than that suggested by me in my answer to the last question; unless a saving could be effected by British regiments, and drafts being conveyed to and from India in private steamers, instead of in Government troopships.

## QUESTIONS.

## ANSWERS.

29. There is a large staff of assistant adjutant generals and deputy assistant adjutant generals for musketry, regimental instructors and assistant instructors of musketry, throughout India.

Does not your Excellency consider that regimental instruction in musketry can be carried on by company officers as part of their ordinary military duty, and that the staff for musketry inspection can be largely reduced, the duty of inspection being carried on by generals and their staff, assisted, if absolutely necessary, by a specially trained officer?

30. Is any reduction in the Judge Advocate General's Department practicable by the concentration of work at head-quarters, courts-martial being conducted by officers with the usual allowance for the discharge of this duty, and in very special cases by an officer deputed from head-quarters?

31. Is it necessary to retain the allowance now passed to interpreters of British cavalry and infantry regiments? No such allowance is found necessary for batteries of artillery with large Native establishments.

32. Does your Excellency see any objection to the assimilation of the scale of syces allowed to British cavalry? Excluding the horses of the non-commissioned officers, for which one syce each is allowed, the present scale is in Bengal one to two, in Madras one to four, and in Bombay one to three, horses: which of these scales would your Excellency adopt?

33. Might not bazaar sergeants be abolished?

34. (a) Does not your Excellency consider that the present expenditure on punkah-pulling is excessive; are not large reductions possible; and would it not be feasible to reduce the cost of punkah-pulling by resorting to the old system of a fixed allowance per company, &c.?

29. I attach great importance to musketry instruction, and I do not believe that it would be carried on in a thoroughly satisfactory manner in British regiments if entirely entrusted to company officers. Without the supervision exercised by the musketry instructor under the orders of the commanding officer, uniformity of practice would not be insured.

I am so impressed with the importance of a proper training in musketry, that I recommend the addition of a musketry instructor to the staff of each regiment of Native infantry. The duties, however, of the quartermaster in a Native infantry regiment are not heavy; and that officer might, I think, with advantage be also required to discharge the duties of musketry instructor.

Bearing in mind the urgent call for retrenchment, the staff salary of the musketry instructor of a British regiment might be reduced from Rs. 150 to Rs. 100 a month. I also look on the duties performed by the superintending musketry staff as very important for purposes of general supervision and for checking returns, more especially in Native regiments, who have now no officers specially entrusted with musketry instruction.

It might, however, be practicable to reduce one of the staff officers of musketry in this presidency; though, in that case, it might prove impossible for every out-station to be visited in each year.

30. Considerable reductions have taken place of late years in the Judge Advocate's Department in this presidency; but it might still be possible to reduce one deputy by amalgamating Nos. 1 and 2 Circles, and adding the Ceded District to No. 3 Circle. If this arrangement were carried out, an additional Rs. 50 office allowance might fairly be added to the combined Nos. 1 and 2 Circles.

I consider it very desirable that general courts-martial, and especially those held under the 101st Article of War, should be conducted by a trained and experienced officer of the Judge Advocate's Department; or courts will be likely to go astray. An officer who had merely passed the garrison course test in military law would not be likely to have the necessary experience, nor would his advice be likely to have sufficient weight with the court. I also consider that the present system, which ensures the proceedings of all district courts being reviewed by an officer of the Judge Advocate's Department before they are submitted to the confirming officer, is a good one, preventing, as it does, illegal proceedings from being confirmed, and protecting all concerned from the penalties attached to wrongful imprisonment.

31. I think that the allowance now passed to interpreters of British cavalry and infantry regiments may be considered unnecessary, provided a qualified Native munshi be attached to each regiment.

32. I am not aware of any objection to the assimilation of the scale of syces allowed to British cavalry. As the scale in force in the Madras presidency is found to suffice, I see no reason why it should not be made applicable to the other presidencies.

33. There are no bazaar sergeants in this presidency; and therefore I don't see why they should be maintained in other presidencies.

34. (a) I am unable to answer this question with any authority. In this presidency the necessity for punkahs varies much according to the climate at different stations, and to the variations of the seasons. I believe that the present allotment does not exceed what is required. Punkahs are brought into use and discontinued under the orders of the officers in command, guided by the recommendation of the medical officers.

As to the comparative economy of the present system and the old system of a fixed allowance per company, I think that



## QUESTIONS.

## ANSWERS.

(b) Would the abolition of khus-khus tatties, except in hospitals, cause any discomfort or risk to the health of the troops?

(c) Can your Excellency suggest any way of reducing the very heavy expenditure annually incurred in the purchase (or manufacture) and repair of barrack furniture, barrack bedding, &c.?

35. Does your Excellency consider it necessary to maintain any reserve of Government horses; and if so, how many; and on what basis should the reserve be calculated?

Should this reserve be attached to corps and batteries, or to one or more depôts?

36. If the former, to what particular division of the army should they be posted?

37. Would your Excellency approve of the reduction of the establishment of horses for horse and field batteries to the war scale laid down in Army Circular No. 186 of 1877, deducting such carts as in India are drawn by bullocks?

38. Can your Excellency suggest any improvements in the constitution and working of the Commissariat Department?

The points which would appear to require notice are—

(a) The large supervising staff of the department.

is a question which might be well referred to a committee of officers empowered to investigate all the details.

(b) In this presidency khus-khus tatties are only used in barracks and hospitals at Kamptee and Trichinopoly, and in hospitals only at Bellary. As it is intended to withdraw British troops from Trichinopoly, Kamptee will be the only station where there can be any question as to their continuance. I think the decision during each hot season should rest with the general officer in command, in communication with the medical authorities. At the same time I consider that the habits of soldiers make it very difficult to turn khus-khus tatties to their proper account.

(c) Since I have been in the service, the system has many times been changed backwards and forwards, in view to reducing expenditure and to facilitate supply; and I can only recommend that the question be referred to a committee of officers specially acquainted with such details.

35. I consider it necessary that a reserve of remounts should be maintained. I divide this reserve into two headings—first, to supply the annual average casualties from horses cast; and secondly, to provide a small additional percentage to meet unexpected demands, such as caused by the outbreak of an epidemic or a war. As regards the latter reserve in this presidency, it has been customary to maintain 150 horses; but I am of opinion that 100 would suffice, and I shall now address Government to that effect.

In this and the Bengal presidency most of the remounts are Australians. They are brought to India in the cold season; and they require to be kept for some months before they are fit for work; that is to say, until the following September or October, when the mounted branches are reduced in strength by the number of horses cast, and the animals purchased during the preceding cold season have become fit to join the ranks. After these have been distributed, there should still remain at the depôt, as above referred to, a small percentage sufficient to meet emergencies. The horses which from any reason have not become fit for distribution fall under this heading, and are kept for another year.

I am strongly in favor of the remounts or the reserve being kept at a depôt. Young horses are better looked after and trained there than when attached to corps or batteries. Of course, the success of a depôt depends on its being entrusted to a really competent and experienced officer, and to the management and the accounts being carefully watched over by the Commander-in-Chief and the local Government.

I consider that the remount depôt at Oosoor is based on an excellent system, which might with advantage be followed in the other presidencies. On this subject I would beg to refer to my remarks on the annual reports of that establishment for the past three years, and to a report in 1878 by Brigadier-General Gaye, Inspector General of Royal Artillery in India.

36. I would have a depôt at some suitable place in each presidency or for each army-corps. I believe it to be preferable both for efficiency and economy to have separate depôts, as it is impossible for any single man to properly look after more than a limited number of horses; whilst the expense depends more on the number of horses than the number of establishments.

37. I approve of the establishment of horses for horse and field batteries being reduced to the war scale laid down in Army Circular No. 186 of 1877. If this establishment is sufficient in Europe, it must be so in India, where the enemy's field artillery is so inferior and immobile in comparison to our own.

38. I think the question of the constitution and working of the Commissariat had best be considered by a committee of experienced officers. As regards (f), however, I am convinced that it is desirable to maintain three separate departments for India; though it may be possible to reduce some of the large supervising and office staffs.

## QUESTIONS.

(b) The number of senior officers of high rank, and with high pay, doing comparatively subordinate and unimportant work.

(c) The large office establishment kept up with each executive officer in consequence of a want of simplification and unification in the examination of accounts.

(d) Relative advantages of the contract and agency system of supply.

(e) Expense of the movement of commissariat stores owing to want of supervision and system.

(f) As to the advisability of having three separate departments for India, each with its own large supervising and office staff.

(g) The advisability of bringing commissariat duties more within the knowledge and control of the general officer commanding both in peace and war.

(h) Whether it would not be advisable to confine the operations of the Commissariat Department entirely to the issue of consumable stores, taking from it the issue of such things as line-gear, bedding, &c., which do not seem to appertain to it, and which would seem more appropriately to belong to equipment?

39. What are your Excellency's views generally regarding the organization of the transport for the army in India?

The following points suggest themselves—

(a) As to whether the transport should be under the Commissariat, or organized as a separate department?

(b) What are the arrangements which your Excellency would propose should be carried out for the formation of a nucleus of a transport Department, by utilizing existing carriage such as moveable columns, and without adding to the present cost of these?

How could a system of regimental transport be organized?

(c) As to the most effectual means of securing the speedy collection of transport in the event of a war.

## ANSWERS.

If the supply of the whole of India was entrusted to one department, it would, I believe, be too unwieldy to be efficiently controlled by one head; and such centralization would be productive of friction, want of supervision, and waste; and further, I believe that there would be more opportunity for contractors to combine against the Government.

The countries occupied by the three local armies differ so much as regards climate, produce, customs, and means of communication, that for the Commissariat to be in a position to make the most of local resources, it seems to me to be imperative that it should be worked and supervised by officers of local experience.

As regards (g), my experience is that the general officer commanding has at present, both in peace and war, sufficient opportunities for controlling commissariat duties. If he fails to do this, it is the fault not of the system but of the officer in command. My experience is certainly in favor of the efficiency of the department, inasmuch as when reasonable warning has been given, it has always proved itself able to supply the wants of the troops.

39. I am not aware of any cattle being now kept up for the army in time of peace in India which can be considered as coming under the head of transport, except those maintained for the moveable columns, or for the ordinary wants of the Commissariat Department in cantonments. Such animals are, I consider, more cheaply maintained if kept under the orders of commissariat officers than they would be if handed over to a separate department acting independently. I have already stated that the animals attached to the moveable columns are ordinarily employed in the larger stations on the daily current duties of the Commissariat; and that when the columns move out, none are left in the station for routine work. When war breaks out, and the number of animals has to be very largely increased, then it becomes necessary to have a special establishment to look after them. Such an establishment should be worked, I consider, as a branch of the Commissariat, and act under the orders of the senior commissariat officer.

(b) I don't think the moveable column carriage should be touched; it ought to be always available, and as such must be considered as purely local. The moveable columns are the safeguards for the immediate suppression of any outbreak; and if their mobility be impaired, the military are deprived of their means of acting.

To create a transport department without incurring additional expenditure is beyond my comprehension.

I admit the advantage of having the nucleus of a transport department always ready, and especially on the North-West Frontier; but if it is to be ready on the outbreak of a war, it must be kept up in peace; and to do this must cost money.

A regimental system of transport has always existed in the Punjab Frontier Force, and with the best results in securing mobility and economy; but the condition of this force must be considered exceptional; and it would be impossible to extend the system generally without a large outlay.

(c) Unless transport be systematically kept up in peace, I don't see how it is to be ready in time of war. If not maintained in peace time, I see no alternative but the existing system; that is to say, that it be collected when required by the Commissariat through the agency of the district authorities. I feel assured that any attempt to keep a regular public register of all cattle in a district would be viewed by the inhabitants with great distrust and dissatisfaction, as implying some intention on the part of the Government to tax or to interfere with the animals. Such a register would never be accurately or fairly kept by the heads of villages or by the police. Those able to bribe would do so to prevent

## QUESTIONS.

## ANSWERS.

(d) Whether it would not be advisable to endeavour to introduce a better and lighter description of cart into India, with a view to the substitution when possible of wheeled for pack carriage?

(e) Whether your Excellency thinks anything can be done to increase the supply and improve the breed of mules?

(f) Looking to the fact that the supply of camels is believed to be steadily decreasing, can you suggest any means by which that supply can be kept up? Could not elephants be largely dispensed with as army transport?

(g) Which do you consider it most advisable to use on service,—Government or hired transport?

(h) Whether you think that, in the event of a Government nucleus being kept up, much of the cost could not be saved by its utilization for the relief of troops and the carriage of Commissariat and other stores?

their cattle appearing in the register; and the demand for their use whenever made would fall principally, as is now the case, on those least able to prevent their cattle from being taken because they are not able to bribe the subordinate Native officials. Further, an efficient district officer is now always able to tell about how many cattle his district can produce, without injuring the agricultural and trading interests of the country. I have myself known the carters burn their carts rather than allow their cattle to be taken against their will; and I have even known them to desert their cattle.

War in India and war in Europe bear no analogy to each other. In India it is altogether a Government affair, in which the people feel no concern. The Native army and the contractors are the only persons who take interest in it.

(d) I quite think so. On the outbreak of the late Afghan war, when I was at Simla, I brought this to the notice of the Commissary General, and suggested that the carts with high wheels in ordinary use in the Madras presidency were much more adapted for military transport than those of Upper India. They are very economical of draught power, and two bullocks can draw a heavy load. Probably the pattern is still susceptible of improvement.

(e) The Madras Government, at my instigation, has taken steps to introduce mule-breeding in this presidency. I consider a mule to be the most hardy, long-lived, and economical transport animal procurable; and think that their breeding should be encouraged throughout India. I am under the impression that if any inducement was held out to the colonists of Australia to breed mules, that that country could produce them to any extent, and that the traffic would be equally profitable to India and that colony.

(f) The only course that I can suggest to check the decrease in the supply of camels is for Government not to employ and use up the females. When a war takes place, thousands of females are destroyed; and thus not only the existing stock, but the source of future supply, is cut off. It took many years for India to recover from the first Afghan war; and the war of last year will be followed by the same results. Further, recent legislation, which gives greater weight to proprietary rights, makes it more difficult to forage camels. At the same time, I believe it to be much cheaper for Government to purchase or to hire camels than to breed them. The introduction of fairs and the gift of prizes, which has proved successful in the Punjab in encouraging horse-breeding, might be found to have the same result in the case of camels.

I am opposed to the employment of elephants as transport animals in war. They require a large grain ration, and it is difficult in many parts of India to forage them, and still more so when beyond the frontier. I believe they were originally introduced to carry large tents not transportable by camels; but, now that our camp equipage is so reduced in size, there can be no necessity for their retention. They are always more or less a danger in camp, being liable to sudden alarms and intractable under fire.

(g) If it were possible to consult efficiency alone regardless of economy, I should give the preference to Government transport; but as it is impossible to overlook financial considerations, it seems to me that hired transport is the only resource. When Government goes into the market to purchase, it always has to do so at the highest price; and when it wants to sell, the market becomes glutted and the animals fetch little.

(h) At stations where moveable columns exist, the carriage kept for them is at present utilized in carrying on the ordinary station duties. If Government is prepared to incur the expense of purchasing carriage for general purposes, and for forming the nucleus of a transport corps, no doubt some of its cost would be recovered by employing it in the relief of troops and in the carriage of Commissariat and other stores. But troops are ordinarily only moved in the cold season, during four months of the year at most, and

## QUESTIONS.

## ANSWERS.

(i) What should be the organization of a division of transport in war, i.e., as to number of animals, officers, supervising staff, drivers, artificers, and veterinarians?

40. Does your Excellency consider that the Military Works Branch of the Department Public Works should be brought more directly under the military authorities than at present, and could not its organization be so arranged as to make the Engineer Department more efficient for war? Or should the Military Works Branch be abolished, the ordinary works being constructed and maintained by the ordinary Public Works staff, a special establishment being appointed under the Military Department for any large works requiring peculiar knowledge or skill?

41. In what way can your Excellency suggest the reduction of the expenditure of the Military Works Branch, Public Works Department?

(a) Could not the expenditure for each year be limited to a fixed annual grant, and the completion of the works necessary for the accommodation of troops and the defence of the empire be distributed over a series of years?

(b) What is your Excellency's opinion of the barrack accommodation in India generally? Are not many of the barracks constructed in late years designed on a most extravagant scale? Are these new barracks any more comfortable or conducive to the health of the occupiers than many of the older and cheaper single-storeyed barracks?

(c) Might not many of the barracks throughout India be constructed in a more economical style; and might not many of the troops on the hills be housed for many years to come in cheap huts or cottage barracks?

(d) Could not the ordinary repairs of completed barracks, and the construction of barracks on standard plans, be well left to the Local Governments, subject to inspection by officers employed under the Government of India?

(e) Might not European soldiers be more frequently employed in Public Works, especially in the construction of their own barracks on the hills and the roads leading to them?

42. Do you consider that a clearer and more appropriate classification of the subjects dealt with in each department of the staff and the army could be adopted; and if so, would it not add to efficiency, and tend to the reduction of labor?

43. Do you consider that the amount of correspondence and returns in the army could be reduced; and would you approve of a committee to consider this question?

the greater portion of them travel by rail, in order to avoid delay and expense; whilst their transit helps to pay the guaranteed interest.

(i) The answer to this question depends on so many and various circumstances, that I am unable to express an opinion on it.

40. The Military Works Branch of the Department of Public Works had best, I think, be left under the control of the civil authorities. All plans and estimates for works of a military nature are now submitted for the consideration and approval of the military authorities. In time of peace there is little employment for the military engineer officer on what may be termed military works; consequently, for the sake of economy, Government avails itself of his services in the Public Works Department. But I can see no necessity for keeping up a larger number of military engineer officers than might be looked upon as required to meet military demands in case of emergency; and the more especially as the system of examination for all staff officers makes it obligatory for them to have some theoretical knowledge of attack and defence.

I am not aware of any large military works at present going on or in contemplation in India which require any peculiar knowledge or skill. As far as my experience goes, I have not found military engineers deficient in military knowledge when called into the field from civil employ. Some may have become so; but Government has always had the right, and has exercised it, of demanding the services of the most capable engineers for military employ. Further, if the sappers and miners of the three presidencies are kept up to a proper standard of efficiency, the officers attached to them ought to go far towards providing a staff to carry out such purely military works in the field as we are likely to require.

41.

(a) I understand that the system proposed by this question is already in existence. Everything is budgeted for in advance, and, save under most exceptional circumstances, no money is spent except under such a grant.

(b) I think that many of the barracks recently constructed were designed on a most extravagant scale; and that they are not more comfortable and healthy than single-storeyed barracks. The British soldier certainly prefers the latter.

(c) I have no doubt it might be so.

(d) Yes, I think it would be best to leave such work to the Local Governments.

(e) I consider it advisable to employ British soldiers on such works as much as possible, provided their military training does not suffer thereby. If this course has not been followed, I presume it has been due to its having been found cheaper to employ Native labor than to give the soldiers working pay.

42. I have not experienced any difficulty from any want of clearness in the classification of the subjects dealt with in each department of the staff. I have already stated that I see no reason for amalgamating the Adjutant General and the Quartermaster General's departments.

43. I believe there is a considerable field for reduction in the amount of correspondence and returns in the army. Much time and paper is, I believe, at present wasted. Some letters might be avoided altogether, and many might well be replaced by memoranda; and a simple countersignature might

## QUESTIONS.

44. Do you consider that the system of payment, audit, and army account is susceptible of improvement, and what alterations would your Excellency suggest?

45. Is your Excellency in favor of station (or general) hospitals in large cantonments, and field and base (or general) hospitals in the field, in place of regimental hospitals?

46. Do you think it desirable that the power formally granted to commanding officers of Native regiments to dismiss men of bad character or inefficient for service should be restored?

47. (a) What changes, if any, would your Excellency recommend in the constitution, organization, and equipment of the Native cavalry and infantry?

## ANSWERS.

in many cases do the work of a letter or memorandum. The number of returns might also, I think, be reduced without injury to the service; and a committee might well be employed in going into this question.

44. I consider that a great improvement has taken place in this department of late years, as the system has been simplified and audits have been much expedited. I daresay, however, that a committee of qualified departmental officers might still suggest simplification and improvements.

45. I am in favor of regimental hospitals in cantonments—

1st.—I believe the men are better cared for by their own regimental medical officers; and because there is, as a rule, sufficient employment regimentally for the medical officers attached to regiments.

2nd.—Because in a large cantonment the distances between the barracks and the general hospital would be inconveniently great.

3rd.—Because buildings for regimental hospitals already exist in regimental lines.

4th.—Because I do not believe that in India it is good to bring a great number of sick together under one roof.

My experience has been that no difficulty has been found in the field in providing field and base hospitals from regimental establishments. It has only been necessary for the general in command to give the order to the senior medical officer, and instruct him to carry out the necessary details.

The army in India is so limited in numbers, that no analogy can, I think, be drawn between its condition and requirements and those of a European army. The medical arrangements which might be best for a limited number of men might be unadvisable, if not impracticable, when thousands had to be provided for and attended to in the place of hundreds.

46. I am inclined to think that it is preferable not to allow summary dismissals without the authority of the Commander-in-Chief of the presidential army, or of the general of the army-corps. The rule that such a matter should be referred to superior authority is, I consider, a salutary safeguard against a too hasty decision or an act of injustice; whilst an application for the dismissal of a sepoy would not be likely to be refused by superior authority on insufficient grounds.

47. (a) The number of privates in each battalion of infantry might with advantage be increased from 600 to 800, with a proportionate increase in the number of non-commissioned officers. The former number is too small to admit of an effective number being taken into the field, after deducting the sick and non-effective. By this arrangement the number of battalions could, if need be, be proportionally reduced, without diminishing the fighting power of the army.

I should prefer to see each infantry battalion organized on the German system, in four double companies, with a British officer at the head of each of these divisions, and Native officers in command of the companies.

This organization is well adapted for the tactics demanded by the arms of the day, and would enable the British officer in command of each double-company to become thoroughly acquainted with, and to have a personal influence over, every individual man under his orders.

As it would be impossible for a young officer on first joining the regiment to be equal to the command of a double-company, and as there must be a reserve of British officers to take the place of those sick or on leave or of casualties, a certain number of junior officers must be attached to each battalion. I give in the margin the establishment of the officers I would recommend for each battalion.

1 Commandant.  
1 Second-in-command and double-company commanders.  
3 Double company commanders.  
3 Subalterns.  
1 Adjutant.  
1 Quartermaster and musketry instructor.

## QUESTIONS.

## ANSWERS.

As regards equipment, I think that a proportion of light entrenching tools should be a part of each regiment's equipment to be carried by the men, in addition to the ordinary tools of the kind. Further, I consider that every Native soldier should be provided by Government with his regimental turban, his great-coat, and with a pair of good shoes or ankle-boots.

Military service no longer occupies the same attractive position as compared with other pursuits; and I would prefer to supply the Native soldier with these indispensable articles of clothing, and thereby put him on a par with the British soldier, than to increase his pay. Nothing the sepoy dislikes more than having his pay stopped, even to the most trifling extent, to pay for articles of uniform or clothing which he is, as a soldier, required to be possessed of.

(b) Is your Excellency in favor of the substitution of pioneer regiments for line regiments, and could more Goorkha regiments be raised?

(b) I believe the two pioneer regiments now in Bengal may be sufficient to provide for the wants of that presidency; but I would raise the establishment of privates to 800, and organize them on the same system as I have advocated for the infantry.

I think that one regiment of pioneers might with advantage be substituted for a regiment of Native infantry, both in this and the Bombay presidency; but it has to be remembered that, with the pioneer regiments as with the sappers and miners, it is the "working pay" which makes that branch attractive, and induces good men to work as laborers, and that therefore in time of peace useful occupation must be provided for these regiments. I have already recommended to Government the substitution of a regiment of pioneers in this presidency in place of a regiment of Native infantry.

I am not able to answer authoritatively the question as to Goorkha regiments. I am however under the impression that the five existing Goorkha regiments are not recruited without some difficulty from the right sort of men. Further, there used to be a disinclination on the part of the Nepalese Government to allow Goorkhas to quit the country to take service under the British Government. To allow each of the present regiments to increase their establishment to 800 would be equivalent to increasing them by 1,000 men. This would be cheaper than raising additional regiments.

48. In the ryotwari districts or in other parts of India would grants of waste lands, revenue-free for their lives, be acceptable to Native officers and soldiers in lieu of part of their pension?

48. The grant of waste lands to Native officers in addition to pension is highly prized, and is a suitable reward at the disposal of Government for very distinguished service. No doubt many of the non-commissioned officers and rank and file would accept a grant of the kind *in addition* to pension; but I do not think it would be looked on with any favor as a *substitute*; and further, I believe, the arrangements necessary for testing any scheme of the kind would, as regards the Native army at large, result in vexatious trouble and correspondence.

Under special conditions, as when the regimental headquarters are permanently fixed—such as is the case with the Goorkhas and Muzbee pioneer regiments—some arrangement of the kind might be practicable. These regiments being recruited from one class, and the men living with their families in the lines, the regimental tie is at all times stronger, and is not necessarily severed by the soldier taking his pension. Such corps, in effect, become a military colony; and the pensioners would no doubt willingly settle down on the land, provided that they be allowed to do so by regiments. My brother, the late Lieutenant-Colonel Charles Chamberlain, *o.c.*, Commanding the 23rd Pioneer Regiment, brought a scheme of the kind before Government.

49. Would it not be desirable to alter the designations of *ressaldars*, *ressaidars*, and *subadars* of the Native army, who now command troops and companies, to that of captain, and *jemadars* to that of lieutenant?

49. I am adverse to any alteration of the kind. We adopted the existing designations from the Natives; and until the time comes when the Native officers are fit to take the place of the British officers, I think it preferable that the present distinction should exist. I am however strongly in favor of making Native officers of very meritorious or highly distinguished service eligible for the grant of the rank of lieutenant, captain, or major, &c., &c. I should be glad to see our organization admit of such men being placed in superior and independent command. I hold that such a step

## QUESTIONS.

## ANSWERS.

50. For the education of cadets of good family for direct commissions as Native officers, would it not be desirable to afford them the means of instruction in military schools, say one at Roorkee for Eastern, and one at Poona for Western India, where the fees should be sufficiently high to ensure only gentlemen of a superior class entering their sons, and to which dominations should be made by the Viceroy?

51. To what extent would you recommend the grant of commissions otherwise than by promotion from the ranks, and what should be the attainments qualifying for such nominations?

52. With reference to the comparative small amount of pension to pay of Native officers, and to afford them greater inducements to retire, would it be desirable and acceptable to them to establish a system of deferred pay by a deduction of a small percentage, say 5 per cent., from the pay of all Native officers hereafter promoted to amass to individual credit, with interest, say, at 4½ per cent. The sum to be handed over on retirement, or to his heirs at any time in case of his death, and to be inalienable by any authority except by being confiscated to the State in case of cashiering?

53. Has your Excellency any suggestions to make with a view to alter or improve the terms on which Native officers and soldiers can obtain pension, or to alter the periods after which Native officers and soldiers can obtain pension on medical certificate or otherwise?

54. Do you consider that under a proper system of concentration and distribution at important centres, the strength of the present Native army in India can be reduced, should it be resolved to create a system of reserves supplying extra men to meet a call for service, say to an extent equal to half the strength of the present Native army?

55. Would it be advantageous in your Excellency's opinion to establish such reserves; and if so, on what principle?

56. Do you consider that the home or any continental system of reserve force could, with alterations, be adapted to the Native armies of India?

would tend towards the loyalty of the Native army; whilst no one who knows anything of Natives can question the ability of the Native army to provide men fit to hold such positions.

50. I think the scheme proposed would have its advantages; but Native gentlemen thus educated and trained would not, I think, be satisfied to obtain appointments merely as jemadar or subadar. They would be above the work required of them; and, if young men of parts, their ambition would not be satisfied unless they were allowed to take their place among the British officers, by entering the service as "attached officers," with the prospect of rising, if qualified, to the highest ranks. I am not opposed to such a system; but it should only be open, at all events in the first instance, to young men of promise. The pay of such officers might be placed on the same footing as that lately ruled for Native gentlemen in civil employ.

51. I think the proportion should be very limited, so as not to diminish materially the prospect of deserving men in the ranks from rising to the commissioned grade.

The cadets from the proposed colleges should, I think, be required to have a knowledge of English as well as of the vernacular, and pass an examination in the ordinary military subjects.

52. Such a scheme might be desirable; but it can only apply to future promotions, except with the consent of the Native officers themselves. I am however doubtful if the plan would have much influence in inducing earlier retirement. Further, I do not believe it to be advisable to hold out to the Native officers too great encouragement to retire whilst they remain capable of efficiently performing their duties. Government can always get rid of an inefficient officer; whilst it is undesirable to needlessly burden the already overgrown pension list.

53. The late alterations in the pension rules have, I think, done all that is now needed. The only alteration I can recommend is, that the present rule which entitles a Native soldier to the full rate of pension if invalidated after 15 years' service shall be modified. I believe that the present rule encourages malingering, and throws an useless burden on the State. The British officer can only claim pension after 20 years' service; and British soldiers can only claim their full pension after 21 years. I would therefore advocate that no pension be ordinarily granted to a Native soldier under 20 years' service; and that up to that period only a gratuity proportionate to his length of service should be given. Whenever any very exceptional circumstances existed, they might be considered as special cases.

54. I question the propriety of reducing the strength of the Native army, even though a system of reserves be introduced; but I am unable to answer the question definitively until aware of the details of the system on which reserves are proposed to be established.

55. No doubt the establishment of an efficient and inexpensive reserve, which could be relied on to suppress internal disorder, or to take the field whenever required, would be an advantage; but I confess my inability to propose a measure which shall fulfil these conditions. Proposals of the kind have come to my notice; but it appears to me that none of them are suitable to the nature of the people, or to our position in India; and that, while they must prove costly, they would be unreliable.

56. I do not consider that they could be adapted. The position of the Government of India is dissimilar to that of any European Government. Here the Government is alien. It consists of a body of British officers, whose authority is upheld by British troops, supported by a mercenary Native army.

## QUESTIONS.

## ANSWERS.

57. If you object generally to the creation of extra reserve forces of Native troops (but having regard to the fact that annually a large number of men are transferred to the pension list, and that the cost for the total number of pensioners, *viz.*, 63,178, is Rs. 46,08,539 per annum), do you see any reason why the present system of invalid pensioning after 15 years' service should not be abolished, and a limited number of effective men be passed to a reserve on reserve pay after say not less than 8 years' service, non-effectives being at all times examined by a medical board, and struck off with gratuities equal to one month's pay for regimental or reserve service, as the case may be, for every year's service.

In such an organization the men of the reserve could be retained under the immediate control of their own regimental officers, and be liable during a fixed period to be called out at any time in case of war to join their own regiments and for one month's annual training at the dépôt, after which period they might pass into a second reserve, liable only to be called out for garrison duty in case of war, until entitled to reserve pension.

On the score of efficiency and economy, and to afford the means of maintaining regimental dépôts and such reserves as have been proposed above, might it not be advisable to increase regimental strength from 600 to 800 sepoy, with a corresponding reduction of the number of battalions in the proportion of 4 to 3?

58. Would it be possible to utilize the men of the sappers and miners and the pioneer corps, who may have passed to the reserve, in arsenals, dépôts, railways, and other workshops?

59. Would you in like manner approve of the conversion of Native cavalry corps into regiments of 4 instead of 3 squadrons, with a corresponding decrease in number of regiments from 4 to 3, a squadron commander and officer being added to each corps?

60. Should the Punjab and Sind Frontier Forces be placed wholly or entirely under the Commander-in-Chief in India?

61. What are the communications, the construction of which appears to be of the first moment from a military point of view?

OOTACAMUND; }  
The 3rd September 1879. }

57. To create a reserve of the kind would, in my opinion, be to add to the insecurity of our position in India. Being opposed to a reserve on political grounds, I need not reply to the first portion of the question. I have already advocated the increase of the establishment of battalions of infantry from 600 to 800, with a corresponding decrease in the number of battalions.

58. I do not consider it would be advisable to introduce Native soldiers, either from the active army or from a reserve, into arsenals, dépôts, railways, and other public workshops. I think, on the contrary, that the more the employes of such establishments can be kept distinct from the Native army the better.

59. In my opinion a regiment of cavalry is more easily handled and more efficient for field service when it consists of 3 squadrons and of about 400 sabres than when it consists of 4 squadrons and a larger number of sabres; but if, for financial reasons, this consideration must be overborne, then the number of squadrons in cavalry regiments might be increased from 3 to 4, and the number of regiments be reduced.

60. For my reply to this question, I beg to refer to my memoranda dated 22nd of May 1879.

61. In my opinion the railways at present most urgently needed in a military point of view are—

I. From Jhelum to Rawal Pindi, and thence to Peshawar and to the Kuram Valley.

II. From the Indus towards Quetta by the route considered to be best, after a full consideration of all the several requirements and difficulties. I say this supposing Quetta to be occupied by troops.

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

## II.

## STAFF CORPS.

Replies by His Excellency General Sir Neville Chamberlain, G.C.B., G.C.S.I., Commander-in-Chief, Madras Army.

1. What is your Excellency's opinion of the working of the staff corps system?

1. The staff corps system has, I think, been creative of great expense to Government, and has resulted in anomalies and difficulties injurious to the efficiency of the Native army.



## QUESTIONS.

2. Beyond meeting the grievances of certain officers of the army who in consequence of reductions, came to be in excess of requirements, has its formation been beneficial or mischievous to the army?

3. Has it not thrown upon the State an enormous expenditure with little or no corresponding result; and has it not encumbered the army with field officers far in excess of all conceivable wants?

4. Is it not demoralizing to an army that all the officers of that army shall be entitled to regular promotion, grade by grade, to the highest ranks of the army by mere expiry of a certain number of years in each rank or grade, and without any reference to merit or efficiency?

5. The three staff corps contain, exclusive of general officers and lieutenant-colonels in receipt of allowances, 1,961 officers: of these no less than 404 are in civil employ. Many of these officers have not done any military work, others have had no connection with the work of the army for very many years; yet they all of them, under the rules of the staff corps, are qualifying by the passage of time for promotion to the highest rank in the army, and for colonel's allowances. If they hold on to their appointments long enough, they will receive a pension double the pension of the highest civil officers in the country, though they have from their first appointment been receiving precisely the same pay as civilians in the department to which they belong. Is not this in your Excellency's opinion a very serious blot on the system?

6. Out of the 1,467 officers who remain after deducting officers on civil employ, 1,187 are employed as regimental officers, and only 280 are employed on the military and departmental staff. Was it not an entire reversal of the proper order of things to form nearly the

## ANSWERS.

2. The introduction of the staff corps has, in my opinion, been mischievous to the army, though beneficial to individuals, having secured to them promotion and increased pay after fixed periods of service.

3. I consider the State has not received corresponding results, and that the number of field officers is far in excess of all conceivable requirements.

At the same time it has to be borne in mind that, consequent on the reduction and reorganization of the Native army, a great number of officers became supernumerary whom it was necessary to absorb. It was impossible to deny them all promotion; and had the staff corps not been formed, the cadres of all the regiments must have been maintained, promotion must have gone on in them, and the same number of supernumerary officers would have been dependent upon the State for the pay of their regimental rank. The loss or gain to Government has, therefore, been the difference between the pay the officers have received under staff corps rules and what they would have received had they gone on gaining promotion in their old cadres.

The result of the reduction and the re-organization of the Madras army was to reduce the number of Native cavalry regiments by one-half, and the number of Native infantry regiments by nearly one-fourth; and to reduce the number of officers in each regiment by one-half in the cavalry and by two-thirds in the infantry; thus making supernumerary about 84 cavalry and 894 infantry officers. This number includes those who were on military or civil staff employ.

4. I cannot view it as necessarily demoralizing to an army that its officers should be entitled to promotion by mere expiry of a certain number of years in each rank, independent of merit or efficiency; because whatever system of promotion be adopted, unless every promotion be made by SELECTION, it is impossible to prevent an officer from rising, though he may not possess positive merit or efficiency.

In every army there are numbers of officers who could not with propriety be classed as possessing special merit or efficiency, but who nevertheless discharge their duties decently well, and whom it would be impossible to pass over or to get rid of because of want of merit or efficiency.

Taking into consideration the drawbacks inseparable from Indian service, I do not consider that promotion up to the rank of lieutenant-colonel is gained under the regulations of the staff corps more rapidly than it should be.

As regards the attainment of colonel's allowances, it has to be remembered that officers who joined the staff corps after a certain date\* will only succeed to them as vacancies occur on a fixed establishment, so that eventually the number of officers in receipt of them will be much reduced.

\* 8th August 1866.

5. Yes; I consider the present rule under which military officers qualify for promotion while in civil employ is one of the mistakes of the staff corps system.

In the summer of 1878 I brought this to the notice of the Madras Government; and the question was submitted to the Government of India. If the several branches of civil employ were taken into consideration, I believe the estimate given in this question of the number of officers thus withdrawn from military duty is much below the mark. The same system prevails throughout the civil departments of the administration; and it cannot, I think, be gainsaid that the military budget has continuously been unjustly burthened by the payment of pensions to large numbers of officers and subordinates who have been employed for long periods in the civil administration; and by what other charges besides pensions I am unable to say.

6. Yes, it was an inversion of the ordinary conditions of staff and regimental service. Since I have held command of the Madras army, it has been my constant endeavour to reintroduce the regimental system of promotion, and to make officers look to their regiments as their military home.

## QUESTIONS.

## ANSWERS.

whole of the officers of the army into a staff corps when the number of staff appointments bore so small a relation to the number of regimental appointments?

7. Is there any other army in the world in which the regimental officers of an army of 120,000 men would be taken entirely from the staff?

8. Is it not better that the staff should be officered from regiments, so that as many regimental officers as possible may acquire a knowledge of staff duties, than that the regiments should be officered from the staff?

9. If your Excellency admits that the staff corps organization has been mischievous, would your Excellency leave it as it is, in consideration of the difficulties of establishing a fresh organization, or would your Excellency propose to abolish it?

10. Several schemes for re-classifying the officers of the army for the purposes of promotion have been suggested?

(1) That the classification should be entirely regimental, and that for this purpose several battalions should be linked into one regiment, and promotion up to the rank of second-in-command should go regimentally; command to go by selection. The regimental cadre to include a certain percentage of officers in excess of regimental requirements in order that the necessary number of officers may be withdrawn from the staff.

(2) That the whole of the officers of the three armies should be formed into one general list; that army promotion should go either by length of service in each rank or by seniority on the occurrence of vacancies in the rank above, the regimental promotion being confined to the officers of the regiment.

Would your Excellency be in favor of any such change in respect to officers joining the Indian army for the future?

11. Would your Excellency be in favor of calling upon all military officers now on civil employ to elect within a certain time between civil and military employment, and if they elect to remain in civil employ, to be prepared to give up the advantages of promotion in military rank and all claims to colonel's allowances, substituting for these privileges a pension calculated on the pension rules of civil servants?

12. Under the staff corps system, is your Excellency in a position to retard or refuse the promotion of an inefficient or incapable officer, or to accelerate the promotion of officers of distinguished merit and ability?

7. Not that I am aware of.

8. Certainly so.\*

9. I would propose to abolish it, and to name a committee of experienced officers to consider the terms under which it could best be replaced.

10.

(1) I do not believe that the Native army can be efficient without a regimental classification; and if, considering the small number of British officers attached to each of the present regiments, promotion cannot be fairly equalized by adopting a purely battalion system, I would recommend that three battalions be linked to form one regiment, and that promotion in it up to second-in-command should go regimentally, the command being filled by selection.

Of course, the establishment of each regiment must contain a percentage of officers in excess of ordinary regimental requirements, in order to replace officers withdrawn for staff employ.

To prevent the possibility of too rapid promotion, a minimum qualifying service could be fixed for each grade, as in the British army.

(2) I am certainly opposed to the whole of the officers of the three armies being formed into one general list. Such an organization would, in my opinion, form an unmanageable mass of officers devoid of cohesion, and be destructive of all *esprit de corps*.

11. As the number of senior officers is much in excess of the requirements of the service, I do not see what would be gained by calling on military officers in civil employ to elect between civil and military employ and pension. It is to be remembered that, if called upon to make a choice, it would be, as a rule, the senior officers, who have the prospect of soon being able to claim their military pension, who would elect to return to military duty, and for whom no suitable employment could be found.

At the same time, steps should, I think, at once be taken for calling on junior officers in civil employ to elect within a certain time between civil and military employment, and should they choose the former, to be prepared to give up the advantages of military rank and all claims to military pensions. I also think that, in fairness to the military budget, early steps should be taken for a fair share of the pensions of all officers now employed in civil departments falling on the civil budget. An actuary could easily determine what proportion of pension, having regard to civil and military service, should be charged to the civil and military accounts respectively.

12. If this question refers, as I presume it does, to regimental preferment, I have exercised such authority, though, owing to the difficulties at present of doing so, not to the extent I could have wished.

I consider that it would be for the good of the army to give the Commander-in-Chief considerable latitude as regards regimental preferment, merely requiring him to report to Government in detail his reasons for passing over an officer.

\* See copies of my Minutes, dated 6th June and 7th July 1878, on the employment of military officer in civil branches of the administration.

## QUESTIONS.

## ANSWERS.

13. When an officer is considered to be personally undeserving of further promotion, should it not be in the power of Government, on the recommendation of the Commander-in-Chief, to place him on half-pay, or to call upon him, if he is entitled to pension, to take the pension of his rank?

14. Should not the pension of officers in the army be fixed for the future on a scale, the object of which should be to secure the services of officers during their prime of life, and at the same time not to offer them inducements to drag on their service in hopes of an increased pension after they have ceased to be efficient?

15. At what period of service should the maximum pension be obtainable, and what should this maximum be?

16. If this principle be adopted, may not the system of colonel's allowances, which really amounts to giving a very high special pension, not to the most meritorious or most distinguished, but to the longest lived officers of the army, cease?

17. Should all staff and departmental appointments, whether under your Excellency or under Government, be tenable for a limited period? What should this period be? and would it be advisable to vest the Governor General in Council with authority to extend the period on the special recommendation of the Commander-in-Chief when, on public grounds, it is undesirable that an officer should vacate his office?

18. When an officer is passed over for command by his junior in the army, should he not be called upon to retire after a certain period of service?

19. Should not officers after five years' tenure of regimental command vacate their commands, subject to their being re-appointed at the discretion of the Commander-in-Chief up to 31 years' service?

13. Yes, I consider it very advisable that some rule of the kind should be framed. I have, I admit, induced several inefficient officers to accept retirement, in preference to having their cases reported to Government; but at the same time I have felt that if these officers had not accepted my opinion as to their disqualifications, and had refused the alternative offered to them, I might have had some difficulty in ridding the service of their presence. I consider that the Commander-in-Chief should receive the support of Government in all such cases.

14. I think it would be very desirable if such a scale of pension could be framed as would not hold out inducements to an officer to prolong his service in hopes of an increased pension after he has ceased to be efficient; while at the same time it ought not to offer him a temptation to retire while he is still capable of rendering efficient service to the Government.

In framing such a scale the financial bearing must be well considered; for the State cannot afford to pay an unlimited amount of pension.

To prevent undue claims of the kind in the future, Government might require officers hereafter entering the Indian army to accept the condition that they were amenable to any alterations in the pension rules which Government might think it proper to introduce.

15. I feel great diffidence in expressing any opinion in answer to this question; but it occurs to me to suggest that the maximum pension might be obtainable in thirty-two years instead of, as at present, at the end of thirty-eight years, and that the maximum pension should be half the present colonel's allowances, or £562-10. This calculation would give an Indian officer about £100 a year more than an officer of the British army who may have passed the greater portion of his service in Europe, and about £120 more than the English pay of an unemployed general officer.

16. Yes, I think it should. I would however recommend that there should be a fixed establishment of officers in receipt of colonel's allowances, as there is now in the royal (late Indian) artillery and engineers; but I would make promotion to that establishment by selection as the reward for meritorious service, and not as the result of pure seniority; in short, as is now done in regiments of British cavalry and infantry.

17. I consider that, as far as the staff of the army is concerned, it is desirable that officers should only hold their appointments for a limited period, except in the case of the Judge Advocate's and the Commissariat Departments, the duties of which require special training which does not fit an officer for the discharge of other military duties.

I would limit the tenure of staff appointments to five years; but I would give Government the power to extend this period, on the recommendation of the Commander-in-Chief, for another two years, in cases where an officer had proved himself exceptionally fitted for a position, or where the interests of the public would suffer by an officer having to vacate at the end of the regulated period.

18. I am of opinion that an officer who has been passed over for command because of unfitness, should be considered as disqualified for remaining on the active list, and that he should be called upon to retire or be placed upon half-pay. The training and experience attached to the position of second-in-command ought to fit its holder to succeed to a command. If it fails to do this, the officer's services can be no longer of any use to the State.

19. I strongly advocate the introduction of a rule which shall limit the tenure of the command of a regiment to five years; except under exceptional circumstances, when I would sanction, on the recommendation of the Commander-in-Chief, the extension of this period for two more years, where a commandant has proved himself exceptionally fitted

## QUESTIONS.

## ANSWERS.

20. Should not officers who have been passed over for brigade commands be required to return to England under the terms of paragraph 2 of G. G. O. No. 797 of 1st August 1872?

21. In what way does your Excellency consider a reserve of officers can be provided for time of war—

- (a) For regiments.
- (b) Military staff.
- (c) Departmental staff.

OOTACAMUND; }  
The 3rd September 1879. }

for his position. I have on various occasions brought the want of such a rule to the notice of Government.

I am not quite clear as to the meaning of the latter part of this question. My experience, however, leads me to conclude that it is the man that you have to deal with, and that you cannot judge by the number of years an officer has been in the service whether or not he is fit to command a regiment. Of late years in this presidency an officer has seldom succeeded to a command before he has had 31 years' service; and, as a rule, commanding officers have had to vacate the command of their regiments on attaining to colonel's allowances before they have commanded them for five years. At the same time I am bound to say I could name many officers of such length of service who are in every respect excellent commandants.

20. I am certainly of opinion that an officer who has been thus passed over should be required to return to England. No use can be made of his services in India, and it is undesirable that he should be allowed to remain there.

21. I am unable to suggest to Government any plan which would provide a reserve of officers, either for regiments or for military or departmental staff, for times of war, unless they be kept up in times of peace. Of course, battalions doing cantonment duty could afford some temporary help to battalions in the field; but such aid can hardly be looked upon as a reserve in the true sense of the word.

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

## III.

## MADRAS.

Replies by His Excellency General Sir Neville Chamberlain, G.C.B., G.C.S.I., Commander-in-Chief, Madras Army.

## QUESTIONS.

## ANSWERS.

1. It has been proposed at various times by Sir Charles Trevelyan, Lord Napier of Ettrick, and other authorities, greatly to reduce the number of military stations of the Madras army, and consequently the number of troops on service within the limits of the presidency proper. What reduction of stations would your Excellency suggest with a view of concentrating the troops at obligatory and strategical positions; and what reduction of Native troops would your Excellency propose in consequence of the reduction of stations and of the withdrawal of Madras troops from Bengal stations?

1. I submit that concurrent authority was unanimously opposed to the sweeping reduction of stations and regiments of Native infantry as recommended by Sir Charles Trevelyan and Lord Napier of Ettrick;\* and in my opinion it is most unadvisable now to adopt such a course.

Although I most heartily accept the principle of concentrating the troops as far as possible at obligatory and strategical positions, and of reducing the number of single or out-stations to the uttermost, still I am deeply impressed with the circumstance that the number of our Native troops is small as compared to the area to be occupied, and to the duties they may any day be called upon to discharge; and that consequently, do what we may, after having met all local requirements only a small force remains at our disposal for concentration. The utility or the absolute necessity for the presence of troops may not be recognizable so long as they are present; but I venture to affirm that if this necessity be neglected or ignored, local disturbance will soon arise to prove that large areas of conquered territory cannot be peaceably held, save by the presence of troops, ready, if need be, to act in support of order.

On the above grounds I cannot recommend to Government the abandonment of Berhampore, or any reduction in the strength of the troops in the Northern District.

I am unable to assent to the theory urged by Lord Napier of Ettrick, that because the Khonds have been quiet for a time, that therefore the presence of the military is no longer required at Berhampore.

Vizianagram might, I think, be abandoned, and the two regiments with advantage be located together at Vizagapatam. But against this unification in a financial point of

## QUESTIONS.

## ANSWERS.

*view* is the circumstance that lines and public buildings now exist at the former place, whilst new ones for a second regiment would have to be constructed at Vizagapatam.

During the three-and-a-half years that I have held command of the Madras army, two calls have been made on the troops in the Northern district—first, in April 1876 to suppress a rising in the Bastar country; and now to suppress one of a more serious nature in the Rampa and neighbouring territories, extending over an area of some two hundred miles of mountains and densely-wooded country, devoid of roads and stricken with fever.

In 1857 these same people, hearing of the mutiny, rose in rebellion, and they did so again in 1862; but on this latter occasion, as on the present one, their rising was to be attributed to acts of oppression on the part of the Native officials.

It is, I consider, beyond question that, but for the presence of the troops on the present occasion, the insurgents would have devastated all the villages along the border, as the police, as a body, proved themselves quite incapable of meeting armed resistance; and had it not been for the good conduct of the Jeypur police, who are well recruited, disciplined and armed, all signs of the authority of Government pending the arrival of troops would have disappeared within the hills.

Lord Napier of Ettrick favors the retention of a regiment at Waltair on the grounds that it is a healthy and agreeable station; but I would add that it is one of the principal ports and best anchorages between Calcutta and Madras. It is the district head-quarters; is a large town containing a numerous Christian population; and in the event of war with a maritime nation, it is one of the points that ought to be carefully guarded.

Since the construction of the extensive irrigation works by Sir Arthur Cotton, the Godavery district has become the granary of the east coast; and instead of its being left without troops, I have concurred with the Local Government in thinking that a detachment of Native infantry should be located either at Samalcottah or at Rajahmundry. The former place has now the preference, because of the existence of the old public buildings and of bungalows for officers; whereas at Rajahmundry everything would have to be created.

In considering the question of the military defence of the northern part of the coast between Calcutta and Madras, it has to be remembered that, since the introduction of steam, our line of communication is by sea, and that no speedier means is ever likely to be called into existence.

Cuttack I would still continue to hold by a Madras regiment, for reasons which I will more fully detail in my answer to the next question.

I last year recommended to Government the abolition of what was called the Northern command; and the question is still before the Government of India.

I feel unable to concur with Lord Napier in his proposal to abandon the stations of Vellore, Palamcottah, and Quilon.

The Fort of Vellore\* is a place of considerable historical importance in Southern India, and in the Native opinion is possessed of considerable strength.

It is within easy reach of Madras by rail, and, in the event of any serious disturbance in Southern India, is a post which ought to be occupied. Further, throughout the whole of Southern India the only forts now in a fit state for occupation against a Native enemy are those of Madras, Vellore, Bangalore, and Cannanore.

Supposing Vellore is to be abandoned, then the fort must be destroyed; and this is a work which could not be accomplished without a considerable outlay of money.

The Native troops in the vicinity of Madras cannot in my opinion be reduced; and as an additional reason for the retention of Vellore, has to be urged the financial consideration that lines and buildings now exist there, whereas, if the regiment is sent elsewhere, new ones will have to be built at a large cost.

\* See Mr. Sim's Minute, dated the 6th January 1872.

## QUESTIONS.

## ANSWERS.

I have already recommended\* that the battery of artillery and two companies of British infantry be withdrawn from Trichinopoly, and that the garrison of that station be reduced to two regiments of Native infantry.

\* See my Minute, dated 8th August, on questions referred by the Government of India.

Although, as stated by Lord Napier of Ettrick, the extreme part of Southern India seems to have settled down, still dacoity on a considerable scale is not unknown, and but for the presence of troops to act, if need be, in support of the police, disturbance of a severe nature might easily arise.

As to Lord Napier's remark as to there being no necessity to retain a regiment at Quilon, I would draw attention to the fact that we are bound by treaty obligations to have four battalions of Native infantry within the territory of the Maharaja of Travancore, or in its neighbourhood. And though I admit that the introduction of railroads gives us the means of acting within the spirit of that treaty without placing them actually on the frontier or within the territory of the Maharaja, still I do not believe that he would willingly assent to the extreme south of India being left without troops; nor do I think that such a measure would be advisable. From Palamcottah there is rail communication to Tuticorin, which is the most southern port on the east coast of the presidency, and one of some importance.

I have in another paper recommended† that a half-battalion should be located at Palamcottah and the other half at Quilon. If Quilon be abandoned, there will be no troops on the west coast from Cape Comorin to Cannanore, a distance of some 240 miles; and, in the event of war with a maritime power, all the backwaters by which the trade of the country is carried on throughout Travancore and Cochin would be at the mercy of the enemy.

† See my Minute, dated 8th August 1879, on questions referred by the Government of India.

As regards Lord Napier's proposal for the abandonment of Mangalore, I feel I cannot concur; and in my view I know I have the strongest support of the Civil Government. It is a port of some commercial importance, and the district contains a large Musalman population. It is also the judicial and district head-quarters. It is not easily accessible from the land side; whilst during the southwest monsoon the communication by sea may be considered as very uncertain, if not at times completely cut off. Between Mangalore and Bombay there is no military station on the coast, a distance of 360 miles; and if Quilon be also abandoned, there will be only one station for a coast line nearly 700 miles long.

I have already recommended to Government the abolition of a separate command for the Southern district, whereby a considerable saving in money will be effected.

As regards the abandonment proposed by Lord Napier of the French Rocks and of Mercara, I think that if at the former place the presence of troops is not needed by the Maharaja for duty at Mysore, the cantonment at the French Rocks might well be abandoned, and the regiment be added to the garrison of Bangalore. But here, again, I beg to bring to notice that, in a financial point of view, lines and buildings are at present in existence at the French Rocks, whilst new ones would have to be constructed at Bangalore.

I have long brought to notice the unadvisability of retaining a whole regiment of Native infantry at Mercara. The duty there is most distasteful to the sepoy, because of the cold, the deluge of rain which falls during the monsoon, and the dearness of provisions. If Native infantry be retained there, a wing of a regiment ought to suffice, or it might be occupied by a detachment of British troops; when hereafter it might become a sanitarium for the British garrison of Cannanore, and, when the rail is completed to Mysore, perhaps also for the troops at Bangalore.

Information has already been called for by me as to the suitability of the existing buildings for the accommodation for 100 British troops, and of their state of repair; but from what I saw of the place, I am afraid that it could not be made a suitable quarter for British troops without considerable outlay.

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## ANSWERS.

In my paper previously alluded to, I have recommended that one wing of a regiment of Native infantry be at the French Rocks, and the other at Mercara; and these should, I consider, relieve each other so as not to keep Natives at Mercara for a whole tour of three years and upwards.

I am unable to recommend any reduction in the number of sepoy within the presidency; and as regards the employment of Madras troops outside the presidency, I would beg to refer to the opinions expressed by me in my paper previously alluded to.

2. Would your Excellency propose to continue to garrison Burma with Madras troops; or should it be entirely or partially garrisoned from Bengal and Bombay?

2. I would continue to garrison Burma with Madras Native troops only.

The Madras sepoy is content to serve in that province, and to remain there separated from his family for a period

- \* (1) Extra batta.
- (2) An ample free ration.
- (3) Free quarters.
- (4) Bounty great-coat and trousers.
- (5) Pensions to the heirs of all men who die there, service in Burma being considered as foreign service.

of three years, in consideration of the advantages\* now granted to him for such service. All that has to be guarded against is that the tour of such service shall not come round too rapidly. I am of opinion that every regiment should, if possible, have fifteen years in India before being again ordered on that service; and that, under NO CIRCUMSTANCES, should a tour of such service come round at a less period than twelve years. To ensure that this rule shall not be broken, some margin must be allowed; for our relations with the Court of Burma are not, and are not likely to be, of a nature to enable us to count for a certainty as to the exact number of regiments we may at all times find it necessary to locate on the Burmese frontier.

The men of Southern India are better able to stand the climate of Burma than men drawn from the Bengal or Bombay presidencies; and I further consider that such a tour of service is a good training for any service beyond seas which circumstances may require of the Native army.

The Madras army, consisting as it does of men of very modified caste-prejudices, and who are for the most part recruited from districts bordering on the sea, it is no more a hardship for them to embark on boardship than it is for the British soldier. Whereas to the high-caste man, and to the man who from his infancy has only heard of the sea as a place of punishment, the bare idea of having to take ship is a subject of dread.

The Madras troops have always been ready to serve in the Straits, or in China, or on the Burmese coast; and the Government has been able to feel that their attachment to the service and their loyalty have not been shaken by the imposition of a fair amount of such duty. On the other hand, it is equally certain that Bengal troops have never willingly taken to such service; and that while it had to be performed by them, even in the smallest degree, difficulties were constantly arising which were prejudicial to discipline, and tended to weaken the attachment of the sepoy to the service. Even the Bengal regiments which were styled volunteers, and which by their recognized constitution were bound to serve WHERESOEVER required, never, in their hearts, willingly accepted the beyond-sea condition of service; and whenever they were called upon to go on boardship, for even a few days, they never embarked without feeling dissatisfied, if not angered, at having to fulfil this article of their bond. It was not infrequent to hear them describe their condition as that of compulsory volunteers (*zabardusti balanteers*); and what officer bearing in mind such facts could now recommend to Government the reimposition of such a condition of service.

I admit that the dread of such service may be less than it was forty or fifty years ago, and it may become still less as the men become better educated and travel more by rail. I further admit that Bengal regiments have volunteered to cross the seas to go on foreign service; and I believe that, so long as regiments are efficiently commanded and led by their British officers, they will be found willing to volunteer. But these were exceptional circumstances, and they must continue to be looked upon as such; whilst the question I am

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now answering has reference to the provision of a continuous relief of a number of regiments for garrison duty out of India and across the sea.

The men of the Bengal army live on flour; while the staple food of all the coast stations in the eastern seas is rice. Men cannot change the food they have been accustomed to from their infancy without suffering. This was partly the cause why the Bengal sepoys suffered so in health when required to serve on the coast; and further the change to a damp, rainy climate from the dry heat of the Upper Provinces aggravated the evil.

Every officer who is conversant with the feelings of the Bengal sepoy is well aware of the dislike with which he serves even in Calcutta, or anywhere in Bengal proper; the causes being mainly those which I have mentioned as operating to their disadvantage if required to serve on the coast.

\* About April of this year I believe compensation for dearness of food was being given as follows:—

	Rs	A.	P.
To Bengal regiments in the Punjab for flour	1	9	5
Madras regiments at Rawal Pindi for rice	8	9	5
Ditto Mooltan ditto	6	7	4
Bengal regiment at Calcutta for flour	5	4	6
Madras ditto for rice	5	0	7

The dearness of rice at Rawal Pindi and Mooltan was due to the Punjab being a corn-growing country. The dearness of flour at Calcutta was due to the cost of carriage of flour to Calcutta—Bengal producing rice. The dearness of rice at Calcutta was due to previous rice-famine and general scarcity in Southern and Western India.

Again, Government is required to compensate the sepoy for the dearness of the staple food he is accustomed to,\* though, for the sake of saving money, he may, to the detriment of his health, live upon the food of the province he is serving in; and therefore it must be to the advantage of Government to employ the rice-eating races in the rice-producing provinces, and the flour-eating races in the corn-producing countries. Further, it has to be borne in mind that the Madras is accustomed to the frequent use of meat or fish or curry-stuffs with his rice. The use of these was either considered prohibited to the Bengal sepoy, or, if a Muhammadan, he was unaccustomed to their use.

Whether the advantages now derived by the Madras troops going to Burma, or elsewhere beyond sea, are greater than are indispensable to secure their willing service may be open to consideration. But although I admit that the benefits are considerable, I should be sorry to see any change introduced; for to do so now must have the effect of shaking the men's faith in the reliance to be placed upon the orders of Government, and it might lessen their willingness to embark on such service.

It is just one of those matters in which I consider liberality to be the best policy; for when a Government has to haggle with its army as to whether or not its conditions are acceptable, then that army—and the more especially a purely mercenary one—is on the high road to becoming its own master.

3. I have, for reasons given in another paper, stated my opinion that the Madras army is at present not larger than is necessary to meet the wants of the presidency, and for duty in Burma and in the other territories not included in the presidency proper; but, as therein stated by me, it may be possible to reduce the number of regiments of infantry, whilst increasing the proportion of privates in the regiments maintained to 750 or 800, according to the number of regiments reduced.

I am of opinion that it is advisable to maintain the Madras Native army at its present strength as a general reserve for the army of India, and as a counterpoise to the armies of the other presidencies.

I believe it to be of importance never to forget that the Madras presidency embraces a very large extent of territory and a population amounting to thirty-one and-a-half millions, exclusive of the population of Cochin, Travancore, Mysore, and Hyderabad.

I have further in my other paper shown that if the Madras infantry is to continue to furnish the Native portion of the garrison of Burma, it will not be practicable for it to do so with a less number of regiments than thirty, and with the complement of privates increased to 800.

3. If, as has been frequently stated, the present Madras army is larger than is necessary for the wants of the presidency, does your Excellency believe that it should be maintained at its present strength as a general reserve for the army of India?



## QUESTIONS.

## ANSWERS.

4. As a matter of fact, does the surplus of regiments maintained under your Excellency's command in excess of requirements for local purposes form a thoroughly efficient reserve in case of danger, or in the event of necessity arising from the active employment of troops either for foreign service or service within the presidency?

There are but four regiments of Madras light cavalry, numbering altogether 1,200 troopers, of which one only is in the presidency proper, the others being stationed in a foreign State or in other provinces of India. The service is popular, and the men ride well. One regiment did good service in the North-West Provinces during the mutiny.

4. I consider that the surplus of regiments maintained in this presidency in excess of requirements for local purposes ought to form an efficient reserve in case of danger, either for foreign service or for service within the presidency. If it does not do so, it is not because the Madras sepoy cannot be made an efficient soldier. The cause would be attributable to want of proper teaching and proper leading on the part of the British officers, and to neglect on the part of the Commander-in-Chief and Government in failing to require the efficient discharge of this duty.

In proof of the possible efficiency of the Madras sepoy, I may say that only lately, on the inspection of the 36th Native Infantry at Rawal Pindi by Major-General Bright, that officer expressed himself\* in most complimentary terms of the regiment. The 30th Regiment inspected at Mooltan was very highly spoken of by the inspecting general; whilst the conduct of one of the subadars, Shaik Daood, was specially brought to notice by the head transport officer at Dadur, as having brought a convoy of 400 camels to that place without any loss, being the first instance of a convoy having arrived without leaving several loads behind. Again, the appearance and drill of the 25th Native Infantry at Malta was highly commended by the Field Marshal Commanding-in-Chief.

At the same time I admit that some Madras infantry regiments do not come up to the proper standard; but this is not because of any inherent deficiency or defect in the material available. It has been because of the regiments being badly commanded, partly arising from a rigid adherence to the claims of seniority, partly to the British officers having been constantly changed, and partly to a loss of feeling of *esprit de corps*, created by large reductions and a flood of supernumeraries, and partly because the army has not had its fair chance of field service.

5. If an efficient and available reserve of the Indian army is considered necessary for the safety of the empire, should it not be recruited and maintained from those parts of the country which give us our best soldiers, rather than amongst the weakest and least warlike races of India, due regard of course being had to the necessity of not giving too great strength or prominence to any particular races or religions?

5. I consider that it is not possible to recruit the reserve of the Indian army altogether from those parts of the country which are said to produce the best soldiers, without giving undue strength and prominence to the races and religions of those countries.

I admit that the men of Southern India are not as physically strong, nor are they now by instinct as warlike, as the men of the north. But this presidency can produce men of sufficient stamina to discharge all the calls made upon the Native soldier; and I believe I am justified in saying that the marching powers of the Madras sepoy have not been found wanting. That he is a good shot is established by the musketry returns of the army.

The value of a Madras reserve was fully realized in 1857; and it does not seem to me to be prudent to discard such experience. History is apt to repeat itself; and undue reliance on one body of a mercenary army is the way to hasten on such a repetition.

6. Is it not unjust to the people of India to tax them heavily for the maintenance of a force which has been declared by the highest authorities in the Madras presidency to be far in excess of the wants of the province, and which, from its expense and from the nature of the races from which it is recruited, has been deliberately and officially declared to be unsuitable as a reserve for the main army of India? Have not the tax-payers of India a right to demand that the army for which they are called upon to pay shall be organized on the most efficient possible basis.

6. As I have above stated, I do not consider that the Madras Army, as at present maintained, is in excess of the wants of the presidency; or that the races from which it can be recruited are effete and unsuited to make good soldiers; and therefore I cannot consider that the tax-payer is called upon to support an overgrown and useless army for the sake of sentiment, or in the interests of the people of the presidency. As a matter of fact, I believe the population of the Madras presidency largely contributes towards the expenses of the soldiers of the other presidencies, after paying for their own army.

## QUESTIONS.

## ANSWERS.

and formed of the best procurable material, without regard to sentiment or the interests of the people of any particular province ?

7. Even if sentiment be admitted as a proper element in the decision of this question, have the people of Madras any greater claim to ask to have an army maintained for their employment than the other southern races of an unwarlike character, such as the people of the Lower Provinces of Bengal have ?

8. Is it not the case that from long custom the people of Madras have forgotten and abandoned the use of arms, and have settled down to agriculture and peaceable pursuits ? Is it not the case that employment in the army is becoming distasteful to them ; and that the reduction of regiments with the payment of a gratuity, calculated on length of service, would be looked upon as a great relief and boon by those allowed to return to their homes ?

9. If the number of regiments and men in the Madras army was reduced, would it not be possible to make the remaining regiments far more efficient, and to secure the services of really useful able-bodied young men ?

10. It has been asserted that the men of the Madras sappers and miners are a far finer and more useful set of men than the men of the Madras Native infantry. Is your Excellency aware of any reason for this difference ?

11. Would it be possible and desirable to increase the number of regiments organized and raised as the sappers and miners now are ?

7. If I believed that the races of the Madras presidency were as unfitted for the duties of a soldier as those which people the province of Bengal proper, I should be no advocate for their employment as a matter of sentiment ; nor do I believe that the Bengalis have any desire to serve as soldiers.

8. No doubt the people of Madras have from a long continuance of peace largely abandoned the use of arms, and have willingly settled down to agricultural and peaceable pursuits ; but it would be an error to suppose that amongst so large a population there are not thousands who would willingly take up arms if the opportunity offered.

The police records establish beyond dispute that a desire of anarchy is not altogether dead ; and to-morrow the bold and the unscrupulous would defy the law if they thought they had the power to do so.

Although the number of suitable recruits for the Native army has not been forthcoming of late, I do not believe this circumstance to have arisen from any backwardness on the part of the population generally to enter the army because of their aversion to a military career, but rather to the fact that the advantages of military service compared with those offered by other professions are not as proportionately favorable as they were in times past ; that the duties imposed on the sepoy are much heavier than they used to be ; and that

\* See my memorandum, dated 28th July, on the subject of he has to serve during a longer portion of his service outside the recruiting. presidency.\*

So far from the reduction of regiments or relief from the service being looked upon by the officers, non-commissioned officers, or sepoys as a boon, the contrary would be the case ; and in no army in the world are the men less inclined to give up the service either on receipt of a gratuity or of a pension. A man once enlisted, his regiment becomes his home ; he marries ; his family accompanies the regiment (save on foreign service) ; and he and his wife and children are entirely dependent on the State for their living.

An order for reduction to the Madras army means, to every man reduced, social degradation and reduction to poverty ; and it is certain that this very question is now occupying the minds of the whole of this Native army.

9. The number of recruits required for the existing Madras army is not more than the population can give, and therefore the reduction of the number of regiments would not, in my opinion, be likely to influence the quality of the recruits for the future. Indeed, reduction is rather likely to prove injurious than beneficial to recruiting, as it would shake the faith of the people in the stability of the service, and in the advantages they may hope to attain in it.

10. The Madras sappers and miners are perhaps a finer and more useful set of men than those of the Madras Native infantry ; but still they are recruited entirely from within the presidency, and from the same class as the sepoys of the Native infantry. I attribute their superiority mainly to the circumstance that the men are able to earn working pay in addition to their ordinary wages, and that this difference enables the men and their families to fare better than their brothers in the Native infantry. Further, this branch of the service is cantoned only at the favorite stations of the army ; it has proportionately no guard duties to perform ; and only one company out of the ten is ordinarily serving in British Burma. Also, this regiment is possessed of a high feeling of *esprit de corps*, consequent on its always having been allowed to have its fair share of active service ; whereas the Native infantry, during the last half century, has not always been treated justly in this respect.

11. In my opinion the existing regiment of sappers and miners is sufficient to meet all the requirements of the

## QUESTIONS.

## ANSWERS.

presidency, and to afford, when necessary, some companies for active service. I am therefore adverse to their being increased.

OOTACAMUND; }  
The 3rd September 1879. }

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

[Confidential.]

No. 2335, dated Madras, 30th March 1878.

From—BRIGADIER-GENERAL H. O'CONNELL, Quarter Master General, Madras Army,  
To—The Secretary to the Government of Madras, Military Department.

With reference to correspondence from the Government of India, referred to the Commander-in-Chief under your No. 1615 of the 28th instant, I have the honor by order to state that a regiment of Native infantry can be spared from the Madras presidency; but His Excellency the Commander-in-Chief considers that, before ordering one to Cachar, the objections to such a move should be fully represented and carefully considered.

2. Regiments of this presidency have their families with them, except on foreign service. If separated from them, the ordinary pay of the men is not sufficient to maintain themselves and their families. It will be necessary therefore that a regiment proceeding to Cachar should be accompanied by its families. The cost to Government of moving the large number of women and children will be great; and in addition suitable hutting lines will have to be provided at Cachar. The climate there is so unlike that of the Madras presidency, that there will probably be much sickness. Men will be granted sick certificate to their homes, and must take their families with them. The widows and children of those who die at Cachar will have to be sent back to the presidency at considerable cost. All this will cause much suffering and discontent, which, in the opinion of Sir Neville Chamberlain, may be avoided by a more judicious distribution of our Native troops in the three presidencies.

3. At present the Madras army has one regiment of Native cavalry and four of Native infantry serving out of the Madras Command: in the Saugor District and at Dorunda. Whilst these regiments are at long distances from their own presidency, the Bombay army has troops far to the southward in the Belgaum District, which is close to the homes of the Madras sepoy.

4. It was the intention of Sir Neville Chamberlain to prepare this summer a scheme, for submission to Government, on the re-distribution of the Madras army, and he hopes still to do so. The present proposal has led to his views on the subject being now partially and briefly stated.

5. For active or foreign service the Madras sepoy is ready and willing to go anywhere. He knows that during his absence his family is comfortable, for the rations and allowances granted are sufficient to provide for himself and family. He therefore willingly proceeds wherever he is ordered.

6. But it is different when, merely to garrison a place out of their own presidency, men are sent to an unknown and remote corner in Bengal, where the language, climate, and customs are strange, and where there is not the excitement of active service to occupy their minds. They then brood over the discomforts around them, and are unable to comprehend why they are thus expatriated.

7. In arranging our peace garrisons, His Excellency considers it is wise policy to keep troops near their homes and among their own people; and he is strongly of opinion that both for political and military reasons our three Native armies should be kept distinct.

8. His Excellency the Commander-in-Chief thinks that his views on this subject should be placed before the Government of India for consideration, for he is of opinion that a much larger question than the mere move of a regiment is involved.

9. If it is still deemed necessary to call for a regiment of Madras Native infantry to be placed at Cachar, His Excellency would name the 19th Regiment Native Infantry now at Trichinopoly. A regiment can best be spared from Trichinopoly. The 14th Regiment Native Infantry, which it was proposed to move next season from Vellore to Trichinopoly, can be sent to Cannanore in place of the 19th Native Infantry which was put down for Cannanore. The force at Trichinopoly will then be reduced from three to two regiments of Native infantry.

[Confidential.]

*Minute upon the employment of a Regiment of Madras Native Infantry in Cachar.*

In the letter from the Quarter Master General are shortly set forth the general objections to the employment of a Madras infantry regiment in Cachar; and to these I desire to state others which did not come within the scope of that communication, but which, in my opinion, call for full consideration.

2. This Native army has three kinds of duties ordinarily imposed upon it—

I.—Service within the presidency—which may be considered as including the Nizam's dominions, the Mysore territory, and the provinces of Coorg.

II.—Service in other provinces in India.

III.—Foreign service—under which heading is ordinarily included service in British Burma and the Andamans.

3. I.—SERVICE WITHIN THE PRESIDENCY.—There are at present serving within the presidency two regiments of light cavalry and twenty-six regiments of infantry, or half of the cavalry and about three-fifths of the infantry.

4. Annexed is a comparative statement of the troops of the Madras presidency since 1837, at intervals of twenty years. I select these periods because 1837 was the end of the long peace which preceded the Afghan War; 1857 was the year of the mutiny; and during the last twenty years our whole military system in India has been reorganized.

5. It will be seen from this statement how large have been the reductions in the strength of this Native army, and the relative decrease of home service as compared to service outside the limits of the presidency. Since 1862 the regiments of cavalry have been reduced from seven to four (a), and the regiments of infantry from fifty-two to forty; or, in other words, the cavalry by nearly one-half, and the infantry by nearly one-fourth. In 1837 and in 1857 seven out of eight of the cavalry regiments were serving within the presidency; now two out of four are serving outside of the presidency.

* Nagpore Force	...	...	...	5
British Burma	...	...	...	12
Singapore	...	...	...	3

In 1837 forty-five regiments of Native infantry were serving within the presidency, and seven without. In 1857 thirty-two were serving within and twenty\* without. Now the proportion is twenty-six within to fourteen without.

6. It has to be remembered that from the regiments located within the presidency have to be met the demands for service in the other provinces of India and in Burmah; and it cannot, I think, be expected that the Madras army should remain contented and efficient if the proportion of home service is only to be viewed as a fluctuating quantity to be regulated by the necessities arising elsewhere.

7. In 1857 this army had twelve of its battalions of infantry in Burmah; the necessity may any day arise for largely increasing the present strength of that division.† Without a reserve of regiments within the presidency that demand could not be met; and it seems to me to be the duty of this Government not to lose sight of its own responsibilities in its desire to meet calls made upon it by other presidencies.

8. The physique of this Native army is far from being what it ought to be. The difficulty of obtaining suitable recruits for the infantry has been forcibly brought to my notice by almost every Commanding Officer I have come into contact with; and I lately felt myself called upon to publish a General Order prohibiting the enlistment of youths physically unfit to discharge the duties of a soldier. Such men are useless on field service; whilst with ordinary cantonment duties they, in middle-life, become a burthen upon the Pension Establishment. One of the causes assigned for the difficulty

‡ 2nd Light Cavalry	...	...	6 years.
3rd "	...	...	16 "
5th Native Infantry	...	...	6 "
8th "	...	...	5 "
11th "	...	...	11 "
20th "	...	...	10 "
22nd "	...	...	6 "
31st "	...	...	5 "
35th "	...	...	6 "

in recruiting from amongst the rural population is the loss of popularity of army service; this is said to proceed partly because of the greatly increased proportion of foreign and Bengal to home service, and the long periods some regiments are kept out of their own presidency.‡ The Native army can only be kept efficient by drawing to its ranks an unfailing supply of the pick of the village lads; and whatever deters them from accepting military service is, to my mind, a subject worthy of the serious consideration of Government.

9. As some persons measure the efficiency and utility of the Madras army by comparing it with that of Bengal, I here say most distinctly that, do what we may, the Madras sepoy can never attain to the Bengal standard, whilst I believe it to be equally certain that the men of Southern India fall far short, as a race, in possessing the courage and military instincts of the men of Northern India; but I do believe that now, as heretofore, the Madrassese, properly selected and commanded, can be made into a very servicable soldier; and further I am convinced that, for many obvious reasons, no greater blunder could be committed than to allow him to lose his place in the military organization by which this Empire is held, merely to let in a better man. Our homely adage of not trusting all our eggs in one basket ought ever to be borne in mind by the Government.

10. II.—SERVICE IN OTHER PROVINCES IN INDIA.—The strength of this Native army has admittedly been regulated with reference to its partial employment in other provinces of India; but there are reasons why this system cannot be strained without injury to the army.

11. In 1837, out of an establishment of eight regiments of light cavalry and fifty-two of infantry, only one of the former and seven of the latter were serving outside the presidency, i.e., with the Nagpore force, and in Moulmein and the Straits.§ In 1857 an increase appears to the Nagpore force of one regiment of infantry.|| In 1877 the Nagpore force is shown as reduced to its original strength; whilst an increase is exhibited of one regiment of cavalry and three of infantry as serving in the Saugor District, and two in Bengal Proper.¶ This increase was upon a reduced army, and included two out of the four regiments of cavalry and eight out of the forty regiments of infantry.

§ Nagpore ... .. 1  
Moulmein ... .. 1  
Straits ... .. 2

¶ One at Dorunda.  
One at Cuttack.

The latter station has since 1803 been frequently held by Madras troops, though it is really in Bengal Proper.

To fully appreciate the change wrought since 1837 in regard to the relative proportion of service within and without the presidency, it has to be remembered that in that year the only call for foreign service was one regiment at Moulmein and two in the Straits, and that, except the above and the regiments serving in the Nagpore territories, the whole Madras army was cantoned near the homes of the men within the presidency.

(a) NOTE.—The 8th Light Cavalry was disbanded in 1857 for misconduct during the mutiny.

12. In fairness to this army, and having regard to its efficiency, its service out of the presidency ought, I think, to bear some proportion to that exacted from the armies of the other presidencies. To the Bengal army, service in Bengal Proper has always been considered by the men as coming under the head of service in other provinces, and has always been distasteful to them; but there has been little of it; and regiments have been regularly relieved. In that army there is no ordinary foreign service. The Bombay army has Scinde as its outlying field of service, with Aden as foreign service. The Madras army has a large proportion of outlying service, and five regiments of infantry always in the British Burma Division.

13. I have already alluded to the long time our regiments remain at stations in the Central Provinces, &c., &c. This I believe partly originated to save Government the heavy expense of a move, and partly because the men are so overwhelmed by their numerous relatives and hangers-on, that the order to march is known to every one in the presidency to carry with it the impoverishment of the regiment. However, if this army is to be considered mobile, the difficulty must be met, and I have instituted inquiries in view to the possible restriction of families; but the measure is a delicate one needing careful handling; and to produce any lasting effect the Native officers and soldiers must themselves be taught to see that the object in view is for their own good. In my opinion five years is the maximum limit which any regiment should be allowed to remain at one station. As matters now stand, there is the greatest difficulty in recruiting; whilst to the injury of officers and men alike, single regiments and detachments are lost to sight except for a few days during the annual inspection.

14. As regards the matter of cost of a Madras regiment when employed out of its own presidency, there seems to me room to doubt whether the financial result has ever been fully estimated. Government has to pay the fare of the wives and children, as well as of the men, when moved by rail; if the regiment marches, the difference between actual cost and old rates of cart-hire. The regimental lines are far more costly than those of a Bengal regiment; whilst the lines of a Bengal regiment will not suit a Madras regiment; nor *vice versa*. Further, the compensation for the difference in the price of rations must be a considerable item; for it is calculated upon the Madras articles of

\* Compensation is granted on the amount of rice food, whilst the men generally live upon the grain of sufficient for a man only, irrespective of the number of the family dependent on him. the country.\* Lastly, the clothing and equipment are furnished from Madras.

15. At the same time my review of the conditions of such service would not be complete were I to omit to say that but for the comparative cheapness of living (in ordinary years) in the Central Provinces, &c., &c., and the other advantages now derived by the men, a disinclination on the part of the sepoys for such service—which is not now the case—would probably be evinced.

16. No one can, I think, look at the Disposition Map of the Madras army without being struck by the anomalous distribution of its regiments. By degrees, to meet pressing calls, corps and detachments have been thrust into the Bengal Presidency, until in the north they approach to Allahabad, and in the east stretch away to Chota Nagpore and Cuttack. Practically speaking, this is repeating on a small scale, but with less inflammable material, what was done with the Bengal army after the large annexations by Lord Dalhousie. Such a course seems to me hurtful to the interests of the State, as being likely to engender the notion of our being too largely dependent upon this Native army; whilst it is certainly injurious to discipline and military efficiency.

17. The request now comes to send another regiment of infantry to Cachar—to enable a Bengal regiment to be stationed in reserve at Jhelum—consequent upon the advance of one regiment to Quetta and the employment of another in the Simla hills. Speaking on behalf of the interests of this army, I feel called on to oppose the measure not only on the general grounds already stated, but for other special reasons. Service in that province will be most unpopular. It will possess all the disadvantages of service in Burmah without any of its advantages. I presume that no distinction is intended to be made as regards emoluments between service to the north-east of Calcutta at Cachar, and service to the west of Calcutta at Dorunda. Unless it be so, the regiment must be accompanied by its families; suitable lines must be built: and the regiment can only be moved there at the commencement of the dry season, so as to be housed by the setting in of the rains. If the regiment is to be moved without its families, free quarters and rations, &c., must be furnished as in Burmah; but I do not see how this could be done without instituting a dangerous precedent as regards this army, and also creating an invidious distinction with respect to the Bengal regiments cantoned in that neighbourhood.

18. Rather than send a Madras regiment to be cantoned in a remote corner of the north-eastern frontier of Bengal, I would urge that this presidency occupy one of the southern stations of the Bombay army—whilst that army sends a regiment to occupy one of the southern stations of the Bengal Presidency.

19. This suggestion leads up to the much larger one involving a partial re-distribution of the Madras army and the Madras command. According to present arrangements the regiments stationed

Bengal Presidency Division.

Dorunda.

Saugor District.

Jubbulpore.

Saugor.

Randa.

Nowgong.

at the places named in the margin are not in any way under the direct command of the Commander-in-Chief of this Presidency; whilst to reach Kamptee and the other stations occupied by regiments under his immediate control, much of the Bombay Presidency has to be traversed. It would appear to me less of an inver-

sion of things to allow the Madras Native regiments to occupy Sholapore and all the stations south of that place; and transfer to Bombay—Kamptee, Jubbulpore and all the stations to its north. If such change be deemed advisable by this Government, I would suggest that the subject be referred to in the letter transmitting our reply to the Secretary to the Government of India.

20. III.—FOREIGN SERVICE.—I have said that service in Burmah and at the Andamans is what is considered in this presidency as foreign service. The men are housed and liberally rationed; and the widows of those who die whilst thus employed receive pensions. Before the regiment embarks, the families are either sent to their homes in the country, or to a depôt formed at some suitable station; this is done at the public expense. Family tickets are given by the men to their families for such portion of their pay as they may desire. The period of such service is limited to three years, when

the regiment returns to the presidency. For this duty the roster is kept as carefully as practicable; and from fifteen to seventeen years may be accepted as the time now intervening before the turn of a regiment comes round again.

21. There is no disinclination on the part of the men to embark on such service. They live well, besides saving some of their pay. A regiment returning from such service is proverbially in much better physique than when embarking. All that is needed with regard to such service is to bear in mind that the tour must not be made to come round too quickly. I believe fifteen years would be the safest average; but under no circumstances ought it to be less than twelve years. To preserve this ratio, of course the regiments in the presidency must be in relative proportion to those in Burmah. Provided that attention be paid to this point, and that the three years' tour be not exceeded, I believe the Madras infantry soldier will always be found ready to obey the call to embark.

22. In conclusion, I regret the delay that has occurred in my taking up this case, but press of current work and other urgent calls have been the cause.

OOTACAMUND; }  
The 30th May 1878. }

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

*Comparative Statement of troops of Madras Presidency in 1837, 1857, and 1877.*

	1837.		1857.		1877.	
	Native Cavalry.	Native Infantry.	Native Cavalry.	Native Infantry.	Native Cavalry.	Native Infantry.
Northern District	...	14	...	7	...	4
Centre ditto	2	6	1	4	...	5
Southern ditto	1	6	1	6	...	5
Mysore Division	1	6	1	4	...	4
Malabar and Canara	...	3	...	4	...	3
Ceded Districts	1	3	1	2	1	2
Hyderabad Subsidiary Force	2	7	2	5	1	4
Nagpore Force	1	4	1	5	1	4
British Burma Division	...	1	...	12	...	5
Saugor District	...	...	...	...	1	3
Bengal Presidency	...	...	...	...	...	1
Singapore, &c.	...	2	...	3	...	...
Bombay Presidency	...	...	1	...	...	...
<b>TOTAL</b>	<b>8</b>	<b>52</b>	<b>8</b>	<b>52</b>	<b>4</b>	<b>40</b>

[ Confidential. ]

*Memorandum on the nomination of Military Officers to appointments in the Civil Branch of the Administration.*

I have to request that Government will be so good as to take into its early consideration the manner in which appointments in the civil administration, heretofore filled by officers of the army, are in future to be provided for. I allude to nominations to posts such as Cantonment Magistrate, to the Police, Jails, &c.

2. When the Native army was much larger than it is now, and when every Native regiment had some twenty officers borne on its rolls with only about half the number ordinarily present, it was easy to make the army provide for the requirements of some of the lower branches of civil administration; but now that the supernumerary officers in the junior grades have been exhausted, and that the complement of the British officers is seven per regiment, and each of these has to be effective, the time has, it seems to me, come when this question must be fairly considered and decided.

3. Formerly young officers used to be nominated by Government, either by selection or because of personal interest, to some of the civil branches after they had gone through a few years of military training, and had acquired some knowledge of the people and of their language. They received either a staff salary in addition to the military pay of their rank, or a consolidated salary. Many of these officers rose from appointment to appointment, until they either claimed to return to command their regiment or a brigade, or retired from the service. Those not considered to be a success were usually remanded to their corps, on the plea of their services being no longer required. The regiment, it may be said, was always in the back ground, ready to receive them, whether they returned by choice, unavoidable circumstances, or as a punishment. Their regimental and army promotion was always going on; and however long the period they had failed to perform military duty, or whatever their unfitness to exercise military control, they could always claim to revert to military employment.

4. This system possessed manifest and solid advantages in favor of the civil administration. It obtained, on comparatively easy terms, the services of disciplined officers, possessed of experience of the

country; it paid them for only exactly so long as it used them, whilst their furlough pay and the pension or Colonel's allowances they were earning during such employment was to be a charge upon the military budget. The money annually debited to the military department, in payment of such charges on behalf of such officers, must have been considerable; and I may add that such must continue to be the case until the disappearance of the officers now remaining in such positions, unless, indeed, a more equitable balancing of such charges be now arrived at.

5. Every possible consideration is, I consider, due to the majority of the officers now to be found working under the civil administration, for they found themselves supernumeraries, and shut out of military duty without any fault on their part, whilst the conditions of their present service hold out little chance of prospective preferment; but, nevertheless, the interests of the army forbid to most of them any hope of future military employment; and this is the answer it is incumbent upon me to give them, even though they be fit for military duty. Already the regiments are filled with officers too old for the positions they occupy; and, so far as I can see, unless some scheme be brought into operation to accelerate promotion, things will grow worse instead of better for some few years to come. During and after the mutiny young officers were sent out in numbers to complete the establishment of that period, whilst since that time there has been reduction in regiments, and reduction in the number of officers per regiment: thus, in a double manner, blocking the way to advancement.

6. The most pressing want in this army, at this moment, is the restoration of the feeling of *esprit de corps*, which was shaken to its foundation on the disbandment of so many regiments, and the introduction of a system universally unpopular and almost universally resented, if not resisted. The only means known to me, for bringing about the result desired, is to retain, as far as may be practicable, officers with regiments, and this cannot be done if either officers on civil duties be forced back into regiments, or if junior officers be required, or even allowed, to enter civil employ. Now-a-days the British officers must be content to remain with their men; there is ample occupation for each one of them in the daily routine of duty and instruction to be carried on in a regiment. An officer's proper home is his regiment; and the expectation of obtaining civil employment ought, I venture to consider, to be now as much cut off from the officers of the Native army as it is from his brother in the British service.

7. I trust that, for the reason above set forth, Government will cease to apply to me for the services of junior officers for employment in the civil branch of the administration. Colonels, Lieutenant-Colonels, and Majors are at its disposal in numbers, and I shall be glad to transfer their services if needed.

OOTACAMUND; }  
The 6th June 1878. }

(Sd.) NEVILLE CHAMBERLAIN, *General*,  
*Commander-in-Chief, Madras Army.*

*Minute by His Excellency the Commander-in-Chief, Madras Army, on the nomination of Military Officers to the Civil Branches of the Administration, dated 7th July 1878.*

This question ought, I think, to be referred for the consideration of superior authority, for, unless a remedy be speedily applied, considerable inconvenience will soon be felt in some branches in carrying on the ordinary duties of administration. Already the want of military officers to fill certain posts heretofore held by them is beginning to be experienced; and as it is certain that vacancies will continue to take place, whilst the source from which it has been customary to supply them is fast drying up, it cannot be prudent to defer facing the difficulty.

2. The army has no longer any supernumerary junior officers to part with. The remaining supernumerary senior officers are either unsuited or unwilling to accept minor civil appointments, or the administration is unwilling to accept of their services, because of their cost to the civil department. The question, therefore, is, in what manner are the vacancies in the minor civil appointments to be filled up in future?

3. Already the Native army is suffering, because of the great disproportion of senior to junior officers; and I say most distinctly that no efficient junior officer can now be removed from his regiment without injury to the army. The service is at present greatly deficient in that class of officer. They are only to be made by a few years of training with Native troops; and, further, I would say that to remove an officer of the kind is to his future injury, unless he be nominated to one of the branches of the administration in which service is continuous, and in which he is ensured prospective rise in position and increase of pay proportionate to that enjoyed by those officers who remain in the discharge of purely military duty.

4. If the staff corps is to meet the demand, then its ranks must be recruited largely in excess of the wants of the Native army; and judging by my own experience in maintaining the complement of British officers with Native regiments, I feel justified in expressing the fear that the authority in India that selects and demands will be more resolute than the authority at home that appoints; and that consequently, then as now, the interests of the Native army will be of secondary consideration and be sure to suffer, though most persons must, I presume, acknowledge that the time has come when Government should cease to take away our best officers from their legitimate duties.

5. But supposing it to be admitted that the interests of individuals must give place to those of the State; that the efficiency of the Native army is still to be of less consideration than that of the efficiency of the minor branches of the civil administration; and that the nominations to the staff corps will keep pace with the demand: still I would submit for consideration whether such civil requirements could not be adequately met by a much cheaper system than through the ranks of the staff corps. Why should not the police and the jails, &c., become separate branches of the administration, as is the case in our own and in every other country? Why should officers of the staff corps sit as Cantonment and Police Magistrates, and also fulfil all kinds of minor civil offices, and then, without

doing any kind of military duty for years upon years, succeed to Colonel's allowances and become general officers? It may be, and I believe is, advisable that the ordnance, the commissariat, and some other branches of the service intimately associated with the combatant force, and also in the political department, should continue to draw their officers from the army; but I believe it will be for the good of the army and the good of the treasury when the demand is reduced to these exceptions.

6. At all events, I must express the hope that early steps may be taken to come to some decision on the question at issue, and also as to the charges now most unjustly debited to the military budget of the pay and pension of officers whose whole services are given towards the discharge of purely civil duties. It cannot be right that such a misrepresentation of figures should continue, and the sooner that the weight is put upon the right horse, the better for the public interests.

OOTACAMUND; }  
The 7th July 1878. }

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

[ Confidential. ]

*Memorandum relative to the retention of the Punjab Frontier Force as a separate body under the orders of the Government of India.*

The Punjab frontier force was raised in order to place under the direct control of the Government of India, and of the Punjab Government, a body of picked officers and men who should be trained to frontier service, be well acquainted with the border country and its tribes, and be ready at all times to act in immediate co-operation with the local civil authorities. It was felt that a body of Native troops, thus organized and controlled, would be well fitted to meet difficulties as they arose; and that they would be more ready and willing to act in concert with the local civil authorities than would be the case were they an integral portion of the regular army, and, therefore, acting under a different head, and liable to be changed periodically.

2. The soundness of this opinion has been fully justified by long experience, for efficiency and unity of action have at all times been found to prevail; and it is, I consider, beyond question that no other system could have produced equally favorable results.

3. In the first place, I would urge the great political advantage to be derived by isolating, as far as may be practicable, those interests which, being common, must always tend to bind together the several portions of the Native army, so as to lessen to the uttermost unity of thought and unity of action. No one who has given serious consideration to our position in India and to its past history would, I imagine, advocate that the Native army should be one and indivisible. In my opinion, the more you can keep the armies of the several presidencies and provinces distinct and isolated, the better will it be for efficiency, for *esprit de corps*, and for the promotion of loyalty; whilst the less will be the chance of any general combination to our disadvantage.

4. The Bengal presidency is a vast territory, and its Native army must necessarily be considerable; rather, therefore, than do away with the distinction which now separates the Punjab frontier force from the rest of that army, I would advocate a still further division of the Native troops occupying that presidency.

5. In 1857 we experienced the benefit arising out of the division of the Native army, and the more especially so from the distinction which separated the Punjab force from the Bengal army. It seems only prudent to turn such experience to account; and I know of no better means of doing this than by continuing the system which, at a time of great danger, gave us a body of Native troops through whose loyalty the Punjab remained tranquil, Delhi was captured, and the mutineers were finally coerced.

6. In the Madras presidency, besides the regular Native army, there is the Nair Brigade, the Mysore Silladar Horse and Infantry, and the Hyderabad Contingent; and I can only say that I consider these separate bodies an element of strength, because they are less likely to be influenced by the same causes, and are less likely to unite together for combined action. Indeed, if, after a service of forty-two years, I could leave a word of warning to those who are to come after me, it would be to bear in mind the wisdom of the policy which divides to conquer.

7. Besides the graver interests to be promoted by the segregation of the Native army, many other advantages are gained by the retention of a local force for frontier service, amongst which I would enumerate the following:—

- I.—To act with efficiency in the hills, the officers and men must be both trained and accustomed to the work, so as to understand and appreciate the real difficulties, and at the same time not needlessly be perplexed or lose heart.
- II.—They should have acquaintance with the country, both within and without the border.
- III.—They should know something about the tribes, their language, and their habits, and they should also be fairly conversant with our political relations with those people in the past.
- IV.—It is only those who are content to make the frontier force their military home who can be expected to fulfil these conditions; whilst it is beyond question that the officers and soldiers who do not voluntarily enter the frontier force are, as a body, never content to remain any length of time trans-Indus.
- V.—All the people of the trans-Indus, and many Punjabees, are much more willing to serve in the frontier force than in the line, because they can do so within prescribed limits and nearer to their homes, and will not be called upon to serve at distant stations in the Bengal presidency.



VI.—As regards the Pathan race, we have a better hold on those serving in frontier regiments than elsewhere, because, if they misconduct themselves and fly, they are afraid of being caught whenever they return to British territory; whilst their well-behaved comrades exercise more influence over them.

8. If there had ever been any inferiority in the frontier force as compared to the line, this circumstance might be fairly urged as one reason adverse to its isolation, but this has never been the case. It has invariably done its work admirably; its efficiency has always been commended by every General Officer and Commander-in-Chief; and both officers and men have never been backward in volunteering for any special service that arose.

9. So long as only selected officers are transferred to the force, it is sure to be in the future what it has been in the past, provided of course that promotions go by honest selection, and that measures be taken to secure a fair flow of advancement. It is not reasonable to expect that officers shall continue to hold the same position for years and retain their energy; nor is it fair to the service, or to the junior officers, that a Commandant should hold on to his position for an unlimited number of years. I believe that the frontier force has suffered in efficiency and popularity because of the absence of any rule requiring Commandants to vacate their regiments after a certain time; and I consider the introduction of such a regulation indispensable. I would limit the period to five years, with the power to re-appoint for two additional years, in reward for exceptional efficiency, or exceptional service rendered.

10. I am not aware under what rules the command of the force is now held; but, if there be no limit at present, I would introduce the system I have above advocated for the command of regiments.

11. In conclusion, I would add that as the British officers are, so will their men be; and that consequently it is indispensable that every promotion in the force be made with the utmost circumspection and on public grounds only.

OOTACAMUND; }  
The 22nd May 1879. }

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

[ Confidential. ]

*Memorandum by His Excellency the Commander-in-Chief, Madras Army.*

In forwarding the confidential reports on the Native regiments of this presidency for the past year, I desire to submit the following observations for the consideration of Government.

1. *General remarks.*—As a rule, the reports may be considered as generally satisfactory, although of course many things are brought to notice which require to be looked into and to be amended: and I would observe that it is only by the most careful consideration of these reports that any confidence can be impressed upon the army as to their utility, or that they can be expected to afford any help towards improving the efficiency of the service.

2. *British officers.*—For the past two years confidential reports on officers, after the model of War Office Form 1114, have been introduced by me. These reports have done much good, I believe, to the officers themselves, and have benefited the service by furnishing a reliable guide for making selections for promotion, or for employment on the general staff of the army.

3. *Excessive amount of leave.*—When forwarding the inspection reports of last year, I alluded to the case of officers who had passed long periods of their service out of India, either on medical certificate or on leave of absence on private affairs. Some cases of the kind have come under my notice this year, and I think they require careful watching by the Commander-in-Chief and by Government.

4. *Intemperance.*—During the past year and during the first six months of the present year, I have had to bring to the notice of Government the cases of officers rendered unfit for the discharge of their military duties by habits of intemperance; and I feel it to be my duty to urge upon Government, in the strongest terms, the necessity of dealing rigorously with such cases, both for the sake of maintaining the efficiency of the Native army, and as an example to those inclined to be guilty of such excess.

5. *Tenure of regimental commands.*—I have already brought to the notice of Government my opinion of the necessity of limiting the ordinary tenure of the command of a regiment to five years, to be extended only in the case of an officer who has proved himself exceptionally fitted for command.

This limit has, for some time past, been introduced into the British army, and the introduction of the system seems to be especially called for by the conditions incidental to service with the Native army of India.

As the rule stands, I may say that it is almost impracticable to rid a regiment of an inefficient commandant merely because of his general incapacity. A commanding officer may be practically nearly useless, without giving me an opportunity of making Government understand or accept the fact of his incapacity.

Occasionally I have been able to bring pressure to bear on some commanding officers coming under this category, in the same way as is done by the Field Marshal Commanding-in-Chief in the British army; but, at the same time, I have felt that if the officers had resisted, they would still have remained at the head of regiments to the injury of the service.

A good commandant is sure to have a good regiment, whilst no regulations or supervision can prevent a regiment indifferently commanded from deteriorating.

6. *Cavalry officers.*—During the past year, all cavalry officers who had joined the staff corps or remained locals or on the general list, and who had continued in the performance of military duty, have, with the sanction of Government, been posted to the four existing regiments of cavalry.

This measure was necessary in order to introduce into this branch of the service the regimental system; and by this means the officers will be able to count, with some confidence, on what their career is likely to be.

7. *Regimental system.*—During the time that I have commanded this army, I have endeavoured, as far as was practicable, to re-establish the retention of the British officers with their own regiments; and it may be said that the regimental system now generally prevails.

With this object in view, promotion has gone, as far as possible, in regiments, though not by pure seniority, unless seniority has been combined with efficiency.

This change, as might have been expected, was not at first favorably received by a service which had practically degenerated into a system of the most rigid seniority; but I believe I am justified in saying it is not now looked upon unfavorably by the best and most efficient officers of the army.

They feel now that merit has a chance of success, and that the drones and the dipsomaniacs cannot stand in their way.

8. *Paucity of British officers with regiments.*—I would further draw attention to the small number of British officers now ordinarily found present and fit for duty with Native regiments.

The proper complement is seven, but out of this number two or more must be considered as being, as a rule, absent on furlough or otherwise not available.

Considering the amount of duty now imposed on officers, it seems to me that seven should be ordinarily present with a regiment, and for this to be possible two more officers must be attached to each. Up to the present, it has been practicable partially to meet this want from the supernumerary list, the result of previous reductions; but when this source is exhausted, it will be impossible to carry on the duties in the manner indispensable to efficiency.

*Musketry Instructors.*—I would add, with all due deference to the decision arrived at by the Supreme Government, that one of the British officers of each regiment should hold the post of musketry instructor. The efficiency of the infantry soldier may be said to mainly depend on his being a good marksman, and it is not to be expected that he can attain to that standard, except under a trained instructor and under constant supervision.

*Probationers.*—I am glad to be able to report that the young officers who have come out from Sandhurst as direct probationers to join the staff corps during the past and previous years, promise to become an acquisition to the Madras army, and I am also able to report favorably of the officers who have become probationers from British regiments.

9. *Native officers—Confidential Reports on.*—When introducing sheets for the British officers, I required that the same system should be followed with regard to the Native officers; and thus the Commander-in-Chief has the ready means of ascertaining the character and qualifications of every Native officer in the service. If a Native officer is badly reported on, he is informed of the circumstance, as is done in the case of British officers, given a chance of reform, and warned of the consequences of continued misconduct.

This system has, I believe, already been followed by very beneficial results, and will tend to improve the status, self-respect, and efficiency of the Native officers.

10. *Honorary Commissions.*—During the current year, I have recommended two Native officers for honorary commissions—my Native Aide-de-Camp for the honorary rank of Captain, and the Subadar-Major of the 2nd Light Cavalry for that of Lieutenant—on the grounds of very long and meritorious service and unexceptionable character.

I believe that it will be for the benefit of the service, if Government will recognise the principle of granting such honorary rewards in special cases, as a means of assuring the Native officers that they may continue to earn distinction up to the very end of their service.

The system has been introduced in Bengal with advantage, and must tend to make the Native officers feel that the gulf which separates them from the British officers is not an impassable one.

The principle is largely accepted in the civil departments of the administration, and I cannot see why, when merit is found in the Native army, it should not be as adequately rewarded as when it occurs in the civil service; and I misjudge the Native character altogether if the opening out of such a road to distinction will not tend to the loyalty of the Native army.

11. *Widows of Native officers.*—Numerous petitions are still received from the destitute widows of Native officers.

I have had the practicability of the introduction of a Widows' Fund under my consideration, but the question is a very difficult one to deal with; and unless Government is prepared to accept the maintenance of the whole of this class, I am unable, for the reasons set forth in my memorandum of 1877, forwarded with Adjutant-General's memorandum No. 79, dated 9th May 1877, to recommend such petitions for favorable consideration. Their destitution is the result of the improvidence of their late husbands; and no grant of the kind is ever made in Bengal or Bombay.

12. *Modification in Pension Rules.*—The modification which has been introduced into the pension rules has done much to rid the service of old and incapable Native officers; and I am convinced that the ruling, which only allows the superior rate of pension to be awarded to officers of unblemished character, will help materially to influence this class to systematically discharge their duties with zeal and efficiency.

13. *Non-commissioned officers and sepoy.*—The above observation applies equally to the non-commissioned officers and sepoy of long service.

14. *Promotions by merit and good-conduct pay.*—Promotions, both in the commissioned and non-commissioned grades, are now much more largely based upon proved merit than used to be the case, and as time goes on, the objections which now prevent selection being of universal application ought gradually to die out.

When promotions to the non-commissioned grades are made by selection, it necessarily follows that the majority of the privates must be passed over and lose all hope of rising; when nothing remains to them, but to look forward to the increase of pay they are able to earn by continued good conduct. At present there are but three gradations of good-conduct pay, an extra rupee being obtainable after three, nine, and fifteen years' service. A private's pay is, therefore, made up to Rs. 10 a month after fifteen years' good service; but after this he can derive no further benefit from long and unblemished service, whilst the ranks are full of sepoy with service of 20 years and upwards.

I am of opinion that it would be politic to extend to the Native army the power of gaining two additional good-conduct badges with pay, at the end of twenty and twenty-five years' service, whereby

a deserving man might, though never promoted, attain in the end to the same pay as a native, *viz.*, Rs. 12 a month. This principle is recognized in the British army, and with success; and what I advocate is merely the extension for the Native army of a principle already accepted.

I consider that such a boon would go far to lessen the heart-burning produced by supersession, and would provide an additional tie to the feelings of loyalty.

15. *Recruiting.*—A marked difference exists between different regiments as to the physique of the sepoy; but I cannot admit that there is any necessity for this distinction if the commandants did their duty, and did not give too much preference to mere height.

Steps have been taken to remedy this defect.

As it seems to me to be most important to maintain distinct the various presidential armies, I have prohibited the enlistment of recruits from the Bengal and Bombay presidencies, except under special sanction, to be only accorded in rare instances.

The difficulty of obtaining a sufficient number of recruits to complete the establishment has this year, as well as last, been forced upon my attention, and I am about to submit the question for the consideration of Government.

As the question involves various considerations, I need not say anything further upon it in this memorandum.

16. *Lines.*—The condition of many of the lines of this army is still most unsatisfactory, and tends to indiscipline and sickness. This subject has been annually brought to the notice of Government, and with but little result; one cause being the large cost of providing suitable shelter for a married army. I am not insensible to this drawback; but, on the other hand, the family tie is beyond question a very strong guarantee of loyalty, and enables Government to repose a trust which, under other conditions, might not be so well founded.

Steps have been taken by me to limit, as far as possible, the number of relations allowed to reside with the sepoy in his lines; but the question is a delicate one, and will require very careful handling, or discontent will be sure to follow.

17. *Guard Duties.*—The amount of guard duty imposed on the Native army is much against its efficiency.

Some demi-civil guards, such as over commissariat stores, over stamp, pension, pay, and Accountant-General's offices, are still being taken by the Native army, and from some cause or another calls are frequently made on them for the temporary safe guard of jails and treasuries. The imposition of such duties is pernicious, and interferes with discipline and efficiency, by taking the men away from their officers and curtailing the time available for their instruction.

There is no more necessity to employ sepoys on such duties in this country than there is to employ British troops on similar ones in England.

By regulations, the men ought to have four nights in bed, but two or three is more like what they actually get.

The requirements now made upon the sepoy are quite different to what they were twenty years ago, and he can only be kept thoroughly efficient by constant instruction in the various duties now expected of him.

Men who have been on duty all night cannot be expected to take much interest in their drill the moment they come off guard, and further constant night duties must be prejudicial to the health of the men, and create a distaste for the service.

18. *Dress.*—The dress of the Native army requires, I consider, to be changed, and to be made more suitable to modern requirements. This matter is under my consideration, and will be referred to Government separately. I would, however, mention that I am of opinion that their head-dress, boots, and great coats should be given to the men by the State, as is done in the case of the British soldier.

*Boots.*—The want of good shoes for the Native infantry is a pressing one, and is one which this presidency is as yet unable to supply. I recommended the introduction of a Government tannery at Madras, partly with a view of removing this difficulty, and the matter is now, I believe, before the Government of India.

19. *Field Service.*—In conclusion, I would beg to urge the necessity which exists for giving this army a fair share of field service whenever active operations have to be engaged in.

It has often had but scant justice in this respect; and I would represent to Government that it is hopeless to expect to maintain a high feeling of *esprit de corps* if the officers and men feel that they are only to occupy a secondary position to that held by the armies of the other presidencies.

OOTACAMUND;  
The 14th July 1879. }

(Sd.) NEVILLE CHAMBERLAIN, *General,*  
*Commander-in-Chief, Madras Army.*

*Memorandum by His Excellency the Commander-in-Chief, Madras Army, on the subject of recruiting for the Madras Native Army.*

The impossibility of obtaining a sufficient number of suitable recruits to complete the established complement of privates in the regiments of this Native army has for some time come under my observation, and I now consider it my duty to bring the subject specially to the notice of Government, in order that it may receive the consideration it seems to me to deserve.

2. The annexed tabular statement shows the number of privates wanting to complete in the several regiments of cavalry and infantry on the 1st of June last; and the records of the Adjutant-General's office establish the fact that for some time past the majority of commanding officers have not been able to keep their regiments complete, and that consequently the army has had to remain short of its complement.

No doubt, some few vacancies must, from the nature of things, always exist in regiments; but the numbers now regularly found to be deficient are far in excess of what need be the case, and the reasons are therefore to be sought in other causes.

3. In support of this view, I have to state that when the three regiments of Native infantry sent to the North-Western Provinces to aid in carrying on the war against the Amir of Kabul were ordered to increase their number of privates from 600 to 800, notwithstanding that volunteers were called for to fill up these regiments, and that recruiting depôts were established at Vizagapatam and Palaveram, both favorite recruiting grounds. On the 1st June, or at the end of six months after the order for the augmentation had been issued, the following was the result:—

The 21st Madras Native Infantry had but 567 privates, or thirty-three below its peace establishment, and 233 below the war establishment.

The 30th had 606 privates, or six above its peace establishment, and 194 below the war establishment.

The 36th had 660, or sixty above the peace establishment, and 140 below the war establishment.

It is clear from the above that the supply of recruits even in time of peace falls short of the demand, and that on the outbreak of a war no reliance can be placed upon our being able to augment even a few of our regiments up to a war footing.

4. Having placed myself in communication with some of the best officers of the Native army as to the causes which operate to prevent young men from entering the service, and having duly considered their reports, I feel myself justified in giving the following as the principal causes which go to make military service unpopular at the present day:—

A.—It is much easier now than it was formerly for a young man to obtain employment, other than military.

At present numbers are required for service in the police and public works, in the railway and on coffee estates, while many men emigrate.

Admission is to be gained to these careers without satisfying all the conditions required of a recruit, and in most of them, if a man is required to leave his district, it is only for a short time, and he is able to count as a certainty on returning with what to him is a considerable sum of money.

With reference to this subject, I would request attention to my memorandum, dated the 14th July, which accompanied the confidential reports of the Native army for the year 1878-79.

REMARK.—The causes above alluded to cannot be obviated except by improving the condition of the sepoy, and thus giving a young man increased inducements to adopt the army as a profession for life.

B.—The calls now made upon the Native army both as to drill and discipline are very much more varied and more strictly enforced than they used to be, and much more is required of all ranks.

REMARK.—There can be no remedy to this objection; for instead of any relaxation being possible, the reverse, owing to the demands of modern scientific warfare, is likely to be the case.

C.—The amount of guard duty is at most stations excessive, and beyond what is sanctioned by Army Regulations. Theoretically a sepoy is supposed to have four nights in bed, whereas in practice, he has more often three or even two. The man who has been out of his bed all night can hardly be expected to turn out for drill with any alacrity on being relieved from guard; whilst the requirements of musketry and drill of all kinds make incessant practice a necessity.

Further, it is supposed that civil duties are not to be imposed upon the army; yet emergencies are constantly occurring which oblige them to take charge of jails and treasuries.

See my memorandum previously referred to.

All these duties take the men away from their officers, make instruction irksome, and their proper duty a drudgery.

REMARK.—The above objection is remediable, but can never be corrected unless the police are sufficiently strong and sufficiently organized and trustworthy to discharge all the duties which ought to be expected of them.

D.—The amount of service out of the presidency proper, and of foreign service, has largely increased of late years; and although the men employed in the Bengal presidency find some advantages from the savings they are able to make from the increased compensation for dearness of rice, and those serving in Burma in the shape of pensions to their heirs and free quarters and free rations, nevertheless many parents are disinclined to allow their sons to enter a service which entails on them the necessity of leaving periodically their own presidency.

One-eighth of the Native infantry regiments are always in the British Burma Division; and they have to remain there for three years without their families.

REMARK.—It may be possible to remedy that part of the objection which is based on service in the Bengal presidency, by a redistribution and by garrisoning with Madras troops the most southern stations of the Bombay presidency; but there can be no remedy to that which applies to service in British Burma; indeed, the course of events points rather to an increase than to a decrease of the Native force stationed in that province.

E.—This army, as is well known, may be termed a married army, and of course numbers of sons are born to the soldiers. In former days, these sons, when they grew up, almost invariably enlisted; now, of those fit to enter the service, many, if possessed of ability, hope to improve their condition by finding admittance to some more favored branch of the public service. A few still enter the army, but a great number who present themselves have to be rejected as not coming up to the required physical standard.

This is partly to be accounted for by the increased cost of food, by the men, notwithstanding this, continuing to marry early, to have large families, and to be too charitably inclined to the host of connections who swarm into the lines for food and shelter.

REMARK.—For this there can be no present remedy, though steps have been taken by me to get commanding officers to exercise their influence to prevent a sepoy marrying before he has three years' service, and thus become entitled to another rupee a month, and to bring pressure to bear to keep hangers-on out of the lines; such reforms, however, as I lately remarked in another paper, require careful

vide my memorandum above referred to.

handling, and can only be introduced with great caution.

F.—Another difficulty which has been experienced has arisen from the standard of height and the different ways in which the chest measurement of recruits has been taken.

The scarcity and famine which has prevailed during the past three years has no doubt had its effect in reducing the physique of the whole population, and in causing many recruits to be rejected who would, but for their emaciated condition, have been able to pass muster; but this alone cannot be considered a sufficient explanation for the large number of rejections.

REMARK.—The present standard of height might, I think, with advantage be lowered one inch, viz., from 5 feet 5 inches to 5 feet 4 inches. The population of Southern India is not a tall race, and I do not consider that any advantage is gained by looking for mere height, though I believe many commanding officers take almost as much pride in the height of their men as in their possessing more serviceable qualifications.

Outside of the army one sees hundreds of men who are in every way physically fit to carry a rifle and a soldier's equipment, but who must be now excluded because they would not come up to the present standard of height.

As regards the measurement of the chest, orders have been issued to ensure a uniform system being followed, and the measurement is for the future to be taken with the arms hanging close to the side.

G.—The miserable condition of the lines of many of the regiments must also, I think, be held to help to render service in the army unpopular and therefore to check recruiting.

See my memorandum above referred to.

REMARK.—This is a matter which can be remedied by expenditure, and is one which I have repeatedly urged the Government to take into its consideration. Small, ill-ventilated, dirty hovels are alike injurious to discipline and to health, and many of the lines now occupied by regiments are a disgrace to the Queen's uniform. In the present day Government feels bound to improve the sanitary conditions under which the general population lives, and it seems only reasonable to give the sepoy shelter which shall not outrage every rule of sanitation.

H.—Some officers have suggested that one of the causes of our failing to get recruits is that the military spirit is dying out among the population; but in this opinion I cannot concur; and I believe that if a remedy is applied to the other drawbacks which undoubtedly exist, this Native army will regain its popularity; but as stated by me in another paper, no army can be expected to retain its self-respect and *esprit de corps* unless it is allowed to have its fair share of field service.

5. Everybody must admit that it is impossible to hold and administer India without the assistance of an efficient and loyal Native army, and I would therefore again urge upon Government the full consideration of the several points brought to notice in this memorandum.

OOTACAMUND; }  
The 28th July 1879. }

(Sd.) NEVILLE CHAMBERLAIN, General,  
Commander-in-Chief, Madras Army.

Statement showing the number of Privates wanting to complete the Establishment of Native Cavalry, Infantry, and Sappers and Miners on the 1st June 1879.

Corps.	Number wanting to complete.	Corps.	Number wanting to complete.
1st Regiment, Light Cavalry ...	25	22nd Regiment, Native Infantry ...	33
2nd do. do. ...	5	23rd do. do. ...	16
3rd do. do. ...	...	24th do. do. ...	36
4th do. do. ...	16	25th do. do. ...	1
		26th do. do. ...	21
Total ...	46	27th do. do. ...	57
		28th do. do. ...	47
1st Regiment, Native Infantry ...	101	29th do. do. ...	15
2nd do. do. ...	27	30th do. do. ...	Supy. 6*
3rd do. do. ...	23	31st do. do. ...	12
4th do. do. ...	3	32nd do. do. ...	31
5th do. do. ...	12	33rd do. do. ...	29
6th do. do. ...	13	34th do. do. ...	40
7th do. do. ...	99	35th do. do. ...	44
8th do. do. ...	29	36th do. do. ...	Supy. 60*
9th do. do. ...	20	37th do. do. ...	99
10th do. do. ...	42	38th do. do. ...	17
11th do. do. ...	34	39th do. do. ...	21
12th do. do. ...	75	40th do. do. ...	42
13th do. do. ...	35	41st do. do. ...	25
14th do. do. ...	44		
15th do. do. ...	1	Total ...	1,220
16th do. do. ...	13		
17th do. do. ...	42	"Queen's Own" Sappers and Miners	40
18th do. do. ...	22		
19th do. do. ...	32		
20th do. do. ...	32	Grand Total ...	1,306
21st do. do. ...	33		

\* Deducted from total.

(Sd.) A. R. CLEPHANE, Colonel,  
Deputy Adjutant-General.

## I.

## ADMINISTRATION AND ORGANIZATION.

Replies by Lieutenant-General H. J. Warre, C.B., Commander-in-Chief, Bombay Army.

## QUESTIONS.

## ANSWERS.

What, in your Excellency's opinion, should be the full war establishment of the army of India calculated under the two heads:—

(a) The number of troops that India ought to be able to place and maintain in the field for service wherever required?

(b) The garrisons and reserves to be maintained?

1. The Government of India alone can decide what is to be the full war army of India.

(a) Judging by the object and the result of the recent campaign on the frontier of Afghanistan, India should be able to maintain in the field for service, wherever required, not only a similar army-corps to that composed of Bengal troops, recently divided into three columns, and acting on distinct and separate basis, but also additional columns of at least 5,000 each of all arms from Bombay and Madras.

(b) The accompanying distribution return shows the garrisons and stations required to be maintained by the Bombay army; the regiments not absolutely required for garrison purposes together with a contingent of artillery and cavalry, amounting in all to about 5,000 men, are all that Bombay can, at present, afford, with due regard to the internal security of the presidency.

## Distribution return of the Force required for the Bombay Presidency.

STATIONS.	Horse and Field Artillery.	British Cavalry.	Garrison Artillery.	British Infantry.	Native Cavalry.	Native Infantry.
Sind	2	...	1	1	1	3
Rajkot	...	...	...	1	...	1
Deesa	...	...	...	1	...	1
Ahmedabad	...	...	...	1	...	1
Baroda	...	...	...	1	...	1
Surat	...	...	...	1	...	1
Bombay	...	...	...	1	...	1
Kirkee	...	...	...	1	...	1
Poona	...	...	...	1	...	1
Satara	...	...	...	1	...	1
Belgaum	1	...	...	1	...	2
Ahmednagar	...	...	...	1	...	1
Malegaon	...	...	...	1	...	1
Mhow	1	1	1	1	1	1
Mehidpur	...	...	...	1	...	1
Nusserabad	1	...	...	1	...	1
Aden	...	...	3	1	...	1
Total	10	1	8	9	4	24
Present strength of the Bombay Army	13	1	8	9	7*	31†
Required for garrison duty (as above)	10	1	8	9	4	24
Balance available for field service (vide reply to Query 5)	3	...	...	...	3*	7†

These numbers include provision also for detachments at other stations not named in this table.

There are barracks and lines for all these regiments.

\* Exclusive of the body guard and the Aden troop.  
† Including the corps of sappers and miners.

I annex a copy of memorandum I have written on the establishment of a reserve for the Bombay Native army in connection with the district police. This reserve is intended to feed the Native army in time of trouble. It may either be an addition to the present establishment, or a diminution of the active army to the extent of, say, 2½ regiments.

I do not advocate a diminution of the present strength, being convinced that, in India especially, we should at all times be fully prepared for every contingency.

2. Whatever may be the organization of the army of India (and a very considerable difference of opinion exists, whether the whole of the forces in India should be concentrated under *one head*; or continued, as at present, in separate armies, under their own Local Governments and local Commanders-in-Chief), there is one point that should never be lost sight of, *viz.*, the relative proportion of British to Native infantry; this should not be allowed to remain below the established scale, *i.e.*, one-third of the former to two-thirds of the latter; the necessity for maintaining the three presidential armies under three separate Governments was declared by the late Duke of Wellington, as far back as 1826, to be necessary for the safety of India. The mutiny of 1857-58

2. What, in your Excellency's opinion, should be the organization of the army of India? Is it necessary, in the present circumstances of the country, to maintain the three presidential armies under the separate Governments and three Commanders-in-Chief, with three large staffs and separate departments?

## QUESTIONS.

## ANSWERS.

3. Could not all the advantages of separate armies be secured with a great increase of efficiency and economy by forming the entire army of India into one army under one Commander-in-Chief and dividing it into four army-corps? Each army-corps to be under the command of a Lieutenant-General, and to be entirely complete and self-contained in respect of organization, arms, and equipment?

The Lieutenant-General to be vested with complete powers of control, and to be responsible for the appointment of all regimental officers, subject only to the confirmation of the Commander-in-Chief for India in respect to the nomination of officers commanding regiments.

The officers of all the army-corps to be equally eligible for service on the staff of the army.

The army-corps to be territorial and localized one in the north, one in the south, one in the east, and one in the west. The army-corps of the south and west to be, as far as practicable, recruited from the district from which the present armies of Madras and Bombay are now recruited, thus maintaining four armies distinct in race, religion, and language, but so organized as to be practically in a state of thorough efficiency and readiness for action in any direction in which the army of India may be called upon to undertake separate or combined operations under the Commander-in-Chief of India.

What should be the strength of each army-corps?

and other similar warnings confirm the opinion then recorded, and under whatever denomination the separate armies may be continued, it is essential for the safety of the empire that their individuality should be maintained. I may therefore reply to the second part of No. 2 question, by saying that it is necessary to maintain (three) or more separate armies under three (or more) separate commanders with separate staffs and, to some extent, with separate departments, but not necessarily under Local Governments, provided the armies are kept distinct.

3. I believe that all the advantages of separate armies can be secured, but with no material increase of efficiency, and hardly any decrease in expenditure, by creating one army for India, under one Commander-in-Chief, and dividing it into four (or five) army-corps under separate commanders.

I say very little increase of efficiency, because the rank which each commander of the presidential armies holds as Commander-in-Chief of the local army gives him greater authority, and secures for him greater attention to his orders, than can be obtained by any general officer holding an inferior title; especially in an army where lieutenant and major-generals are permitted to hold departmental appointments, whose rank and standing trench very closely on the position of the general officer in command, whose authority is thereby weakened.

If 'army-corps' are to be substituted for the presidential armies, and the command given to a lieutenant-general, the saving in military pay is hardly appreciable, as the general officer in command of a division gets, within a few hundred rupees a month, the same military pay that is now accorded to the local Commander-in-Chief. The lieutenant-general commanding could not uphold his position, and secure the entire completeness and discipline, in respect to the organization, arms, and equipment of his army-corps without a very similar staff and departmental organization to that now in force. The economy of the new formation would, therefore, be confined to the difference in the pay between an Adjutant and Quarter Master General and a Deputy in each department, less the additional Deputy Assistant who would be required to assist the others in doing the work of the departments. It is therefore of doubtful economy, and almost certain loss in efficiency, to invest the complete powers of control in the lieutenant-general instead of, as at present, in the local Commander-in-Chief, assuming that the lieutenant-general is to be made responsible for the appointment of all *staff* and *regimental* officers, subject only to the confirmation of the Commander-in-Chief in India, in respect to the nomination of officers to the higher *staff* appointments, and of officers commanding regiments.

The officers of all the army-corps should not only be equally *eligible* for service on the head-quarter staff of the army, but every army-corps (to secure efficiency and perfect equality in the patronage of the army) should in turn furnish the head-quarter staff with administrative officers, who should, also in turn, fill the higher appointments. Thus supposing No. 1 army-corps gave the Adjutant-General of the army for (say) five years, this appointment on the termination of that five years should be given to another army-corps, so that each in its turn should be fairly represented; this arrangement applying to all the different staff appointments.

The lieutenant-generals commanding should have the selection of their own staff from their own army-corps, on vacancies occurring, subject, in the higher appointments, as previously admitted, to the confirmation of the Commander-in-Chief.

Whatever may be the appellation of the several divisions of the one army, each army-corps should be territorial and localized as at present, maintaining the natural territorial boundaries and recruiting from the several districts as the local armies are now recruited, so as to keep the several armies distinct in race, religion, and language, but so organized that every army may be in a state of thorough efficiency and readiness for action in any direction in which the army of India may

## QUESTIONS.

## ANSWERS.

4. If such a formation of the army were adopted, would it not, in your Excellency's opinion, be possible to carry out a very material reduction in the staffs and departments, placing at the same time at the disposal of the lieutenant-general commanding army-corps a staff so efficient and complete as to enable him to relieve the Commander-in-Chief of India of much unimportant work which now comes before him?

5. Supposing such an organization to be adopted, what proportion of each army-corps should be prepared for mobilization, and maintained in a state of readiness to take the field at short notice? What should be the relative proportion of each arm of the service in such active portion of each army-corps?

6. Setting aside historical sentiment, and looking to the relative importance—the population, and the wealth of the various Local Governments of India—is there any more reason why the armies of Madras and Bombay should at the present time be under the Local Governments of Madras and Bombay and under local Commanders-in-Chief, with separate departments for every branch of military administration, than there is that the same system should be followed in the Lower Provinces of Bengal, the North-Western Provinces, and the Punjab?

7. As a matter of fact, if a large reserve for the northern armies is to be maintained, is it not the duty of Government to see that this

be called upon to undertake separate or combined operations under the one Commander-in-Chief of the army of India.

The strength of each army or army-corps must depend entirely on local circumstances, on political influences, and the extent of territory to which it is allotted.

4. If the separate armies of the north, south, east, and west are formed as proposed, it will not be possible to carry out any very material reduction in the staffs and departments, supposing that the intention of making each army-corps complete and self-contained is to be carried out. The Commander-in-Chief in India should be freed from all local influences. He should not be in command of any separate army-corps; consequently, by dividing into two divisions the present Bengal army (after its amalgamation with the Punjab forces), two additional lieutenant-generals, with their staffs, will be required to make these separate army-corps efficient and complete, and to relieve the Commander-in-Chief of India of much unimportant work which now comes before him. Instead, therefore, of having, as at present, three separate armies to all intents and purposes under one Commander-in-Chief, there would be four separate armies under four lieutenant-generals, with four separate staffs, under one separate Commander-in-Chief, with another staff, composed of officers taken from all the several army-corps. The army head-quarters should be fixed in some central point, say Allahabad; but the Commander-in-Chief must necessarily be constantly near the Viceroy when the Commander-in-Chief is not on inspection tours.

5. Supposing that this organization of four army-corps be adopted, they will take the duties, and do the same military work, that is required of the now existing presidential armies, supplemented possibly by some additional territory which the redistribution of the allotments may render necessary. Under this uncertainty as to the strength of each army-corps, it is not possible to determine what proportion should be prepared for mobilization and maintained in a state of readiness to take the field at short notice; but as the garrison duties have been reduced to a minimum, and it has been clearly shown (*vide* the Commander-in-Chief's Distribution Return of the Bombay Army) what are the political requirements of the Bombay presidency, the difference between the number of batteries, regiments of cavalry and infantry, shown on that return (annexed for reference) and the full strength of the Bombay army will show what force can be 'mobilized and maintained in a state of readiness to take the field at short notice.' The relative proportion of each arm in such active portion of each army-corps must depend on the nature of the country such portion is required to act in, and the enemy to whom it will be opposed.

6. I believe (looking to the relative importance, the population and wealth of Bombay) that as it has been shown that but a very trifling saving of expense can be effected by detaching the present army of Bombay, under its local Commander-in-Chief, from the Local Government of Bombay, and placing it (the army) under the command of the Commander-in-Chief and under the Government of India, there is more reason to maintain the separate Governments of Bombay and Madras with their local armies than there is to maintain the independence of the Lower Provinces of Bengal, where the Native population is essentially peaceful. The troops serving in the Punjab and in the North-Western Provinces have hitherto enjoyed a local supremacy independent of military control and of all conditions of relative importance, or even of historical sentiment. Being under the immediate control of the Viceroy and the Government of India, as well as the Commander-in-Chief in India, these provinces have enjoyed a monopoly of Government patronage, which the armies of Bombay and Madras could not expect to be filtered through the Local Governments under which they are immediately serving.

7. As a matter of fact, it is not necessary for India to maintain a large reserve, either for her northern, or for her other armies. The armies of India should be at all times



reserve is formed of the most efficient fighting men whom it is possible to procure and to maintain with due regard to the admitted necessity of keeping up armies of different races and religions, and with due regard to the safety of the Empire?

Does your Excellency look upon the Madras and Bombay armies in their present organization as constituting the most efficient reserve for the armies of Upper India?

prepared to meet the emergencies which no foresight or precaution can entirely guard against; and, in order to be prepared for such contingencies, India's reserve should be found in the separate and distinct armies of the several presidencies, so that, from whichever side the danger threatens, and whether it threatens from the insubordination of one of its mercenary armies, or from the exuberant growth of the armies of the Native independent States, or from external and foreign enemies, the neighbouring army-corps, of a different race and religion, can at once be called upon to support the Empress' supremacy, and form a reserve to the troops engaged, far better than that which, of necessity, must be hastily summoned from a state of semi-pastoral existence, where, as '*pensioners on the reserve*' worn-out sepoy have been lingering in idleness, and in forgetfulness of an empire it is against their religion to support. The armies of Bombay and Madras do, therefore, constitute a reserve for the armies of India; and the more efficient the armies of the south and west can be made, the more decidedly will they become efficient reserves for the armies of Upper India. History has proved that the whole of the western coast of India is a military country, producing a warlike population. The Southern Mahrattas have proved themselves in former days, and are still, equal to any other race in India as a fighting people. Their power has been broken and their military ardour quenched by an almost total disarmament, but they are still a hardy people, in a mountainous district, inured to toil, and especially good at tracing their steps over the rough and impracticable Ghâts. What more can we require to make soldiers? But, in addition to these hardy mountaineers, we must remember that the armies of Bombay and Madras in 1857 and 1858 saved India. What better reply can be found than the efficiency of these southern armies as a reserve?

8. What is the feeling of the Madras and Bombay armies in respect to employment in other presidencies in India in times of peace? For instance, at the present time, 26 regiments of the Madras army are employed within their own presidency, and no less than 14 outside its limits, some of them at distant stations in Bengal. Is this service popular with the army? Are the Madras regiments more efficient than the Bengal regiments; or are they, when on this duty, cheaper, the cost of relief, transport, of clothing, equipments, and compensation for food, being taken into account. If they are neither cheaper nor more efficient, is there any object in garrisoning Bengal and Burma partly from the Madras army?

8. Bombay has troops at Mhow, Nusseerabad, and other stations beyond the limits of the Bombay presidency; and so long as these troops are relieved at intervals, to enable them to return to their own country, and occasionally to revisit their villages and families, they have no feeling or prejudice against such employment.

As regards the comparison between the armies of Bengal and Madras, or whether the Madras regiments are more efficient than those of Bengal, I am not in a position to reply; nor can I say whether India saves by the employment of Madras troops in Burma. India certainly cannot gain by employing any local troops at great distances from their base or presidency, when, owing to local circumstances of communication, &c., it would be more convenient to employ the troops of a nearer army.

Such, for instance, is the case with the Madras troops occupying some portion of the Central Provinces. These troops have to pass through a very large extent of the Bombay presidency, and frequently to remain in a rest-camp at Poona for one or two days to pass from the stations in Central India to Madras.

9. Is your Excellency aware of any difficulty in obtaining recruits for the army of a good class of healthy strong young men of agricultural population physically qualified to perform the duties of a soldier?

9. There has been some difficulty in keeping the infantry regiments complete; and there is little doubt that the dearness of living, the smallness of pay, and the competition derived from the number of otherwise qualified recruits being employed on the railway, or in the police, combine to prevent healthy strong young men of the agricultural class from enlisting into the army.

10. Has it ever been asserted that a difficulty in obtaining efficient recruits is attributable to the unpopularity of the service of the local army beyond the limits of its own presidency in times of peace?

10. The army, in fact, is no longer the popular service it used to be; but as regards Bombay, this is to be attributed not to the service of the local army beyond the limits of its own presidency in times of peace, but to the causes named above, and to the want of energy on the part of commanding officers, who are satisfied by sending out recruiting parties into districts already overstocked, and think they have then done all that is necessary, and complain that they cannot complete their regiments.

Within the last eight months I have by constant enquiry reduced the number of '*wanting to complete*' in the Native infantry regiments from 1,500 to 620.

## QUESTIONS.

## ANSWERS.

11. If your Excellency is of opinion that the army-corps should be formed territorially, and as far as possible localized within its territorial area, what alterations would you propose in the strength of the various armies to render them fit for their home duties, and to place them in a position to take part in any war going on in India by the detachment of a force of all arms?

11. I have already given it as my opinion that, in order to maintain that balance of races which in 1826 the Duke of Wellington considered so essential to the safety of India, the several army-corps or presidential armies should be territorial, and as far as practicable without destroying their efficiency localized within their own territorial area; but I am not prepared to say what alteration would be necessary in the strength of the various armies to render them fit for home duties, &c., because I can only assume at present that each army-corps will be, as far as possible, equalized in strength, and that provision will be made 'to place each army-corps in a position to take part in any war going on in India by a detachment of a force of all arms,' so that in futuro we shall not see the field service corps monopolized by one portion of the army of India to the exclusion of others, whose claims, when they form part of the army of India, cannot be ignored.

12. Could not the duties of the Native army be very materially decreased by a general concentration of troops in large centres in the neighbourhood of railways, thus abolishing all small cantonments and outlying and isolated stations?

12. As regards a general concentration of troops throughout the whole of India, I am not prepared to give an opinion.

I have endeavoured, as far as regards the Bombay army alone, to establish a general concentration of troops in the neighbourhood of the junctions of railways, or at such convenient points as may be selected; but the political influences invariably prevent my carrying out such an idea. In addition to the expense, which would be very great, the civil officers at small stations require protection.

13. Would not this arrangement enable the officers commanding army-corps to make a much larger number of men available for service, and justify a very considerable reduction of troops in some parts of the country; and would it not enable the discipline, exercise, and instruction of the troops to be more effectively carried on, and render the formation of camps of exercise more feasible?

13. An arrangement such as is proposed in the preceding question would undoubtedly, if feasible, enable the officers commanding army-corps to hold a larger number of men available for service; but I doubt whether, as far as regards the Bombay presidency, it would justify any considerable reduction of troops, because it would leave a large number of small civil stations unprotected. And although these civil stations may not actually require troops, the presence of troops in their neighbourhood gives security that could not be obtained by a concentration of troops in distant cantonments.

Camps of exercise are excellent schools when well conducted under experienced officers; but they are very expensive schools, not required except at intervals, for special purposes.

I consider that camps of exercise, if within reasonable distance of large cantonments, may prove the working of the commissariat and transport departments; but they are comparatively of little practical use for troops, and in my opinion should never be dependent on *railways*. If within easy distance (6 or 8 miles) of a cantonment, from whence all the supplies, &c., should be conveyed by the moveable column transport, supplemented by country carts, &c., the exercise and instruction not only of the troops in escort duties and convoys, but the practical working of the transport and commissariat departments, is duly tested.

14. Recognizing the fact that India cannot afford to maintain the most perfect army which could be devised in which economy did not enter, and that large reductions of army expenditure are absolutely essential, what changes and alterations would your Excellency be prepared to recommend in the organization and administration of the army?

14. If India cannot afford to maintain an army 'so organized as to be practically in a state of thorough efficiency and readiness for action in any direction' in which it may be called upon to act, we must resign our hold over the vast territory that the industry and valor of our predecessors have added to the British empire.

If large reductions of expenditure are necessary, they must be sought in the departmental rather than in the combatant branches.

As far as regards the Bombay army, I am not prepared to recommend the reduction of a single regiment. On the contrary, I think the Governor's minute of the 31st ultimo shows that it would be advisable to increase the rank and file

## QUESTIONS.

15. Are you in favor of amalgamating the Adjutant General and Quarter Master General's departments under a Chief of the Staff, so that, as in other armies, the staff of the army shall consist of certain grades of staff officers, the work being apportioned as may be desirable, but without a division, as at present, into two distinct departments?

16. If the army were divided into army-corps, and power given to the lieutenant-generals commanding to dispose of many questions which are now referred to superior authority, so that important matters only were treated of by the central military authority at head-quarters, would not a staff of about the following strength be sufficient—

*Head-quarters.*

- 1 Chief of the staff.
- 4 Officers of the general staff.
- 8 " " " for intelligence duties.
- 1 Officer of the general staff for royal artillery, to be Inspector General of Artillery, with two staff officers.
- 1 Officer of the general staff for royal engineers.
- 1 Officer of the general staff for musketry inspection, &c.
- 1 Judge Advocate General.

*Army-corps.*

- 1 Chief of the staff.
  - 2 Officers of the general staff.
  - 1 Staff officer of royal artillery.
  - 1 Staff officer of royal engineers, to be Inspector General of Engineers, Military Works, and Fortifications.
  - 1 Deputy Judge Advocate General.
- Departmental staff officers in addition to be under the chief of the staff of the army-corps.

17. If your Excellency does not approve of this arrangement, either in strength of *personnel* or nomenclature, what would your Excellency propose?

## ANSWERS.

of both European and Native regiments, thereby adding to the effective force without increase in the administrative department.

15. I believe that if 'you require to have anything well done, you must do it yourself;' and that, under all circumstances, an officer commanding an army or force, however exalted may be his rank, is his own best chief of the staff. I am not therefore in favor of amalgamating the Adjutant and Quarter Master General's departments, because I am satisfied that these departments must practically be kept separate; that is to say, there will be an Adjutant and a Quarter Master General's branch in every office; therefore it is preferable that the officer on whom the responsibility rests shall be known and acknowledged under his proper title. If a general commanding is superannuated or incompetent, he then requires a chief of the staff; but otherwise, and however small the staff may be, I consider that each officer should be responsible for the proper working of his own department.

16. If the army of India is divided into army-corps, and power given to the lieutenant-generals commanding to dispose of many questions which are now referred to the superior authority, so that 'important matters only' may be referred to the Commander-in-Chief, some small reductions might be made in the *establishment* of the Adjutant and Quarter Master General's offices; but as the *clerical* labor only would be reduced, no alteration of the strength of the head-quarters staff would be admissible. Nor can I advocate the replacement of the Military Secretary (who in the proposed *corps d'armée* would be responsible for the admission of the names of officers eligible for all appointments, staff and regimental) by a chief of the staff, who would in fact only *repeat* the orders he receives from the lieutenant-general commanding to the officers of the several branches of each department in which there would be no real head or responsible officer. In very large commands, combining great administrative and political functions, with military movements on a grand scale, a chief of the staff may be desirable to relieve the general officer of details, which are obvious; but in all smaller operations, and in all secondary positions of trust and command, the general officer on whom the responsibility rests cannot abdicate his responsibilities, and must therefore practically give his own orders to the officers of the several departments, with whom he should be also in constant personal communication.

17. As I have shown in the preceding replies that I do not approve of the change in the nomenclature of the officers who are to compose the staff of the *corps d'armée*, notwithstanding that I consider the strength of the proposed staff sufficient for all ordinary purposes, I can only distribute the same number of officers, so that each officer may have his separate work, for which he, under the head of his department, must be held responsible:—

*Head-quarters of the Army-corps.*

- 1 Lieutenant-General Commanding.
- 1 Military Secretary (may be styled *Assistant*).
- 1 Interpreter and Aide-de-Camp.
- 1 Aide-de-Camp.
- 1 Deputy Adjutant General.
- 1 Assistant Adjutant General.
- 1 Assistant Adjutant General for musketry.
- 1 Deputy Quarter Master General.
- 1 Assistant Quarter Master General.
- 1 Colonel Royal Artillery.
- 1 Staff Officer Royal Engineers, to be Deputy Inspector of Engineers, Military Works, and Fortifications, &c.
- 1 Deputy Judge Advocate.

It is presumed that each army-corps will be divided into divisions and brigades.

Each division to be under the command of a major-general, who will hold his command for five years, but will

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vacate *without appeal*, on promotion. The division staff to consist of—

- 1 Major-General.
- 1 Interpreter and Aide-de-Camp.
- 1 Assistant Adjutant General.
- 1 Assistant Quarter Master General.
- 1 Brigade Major, who would also perform the duties of Deputy Assistant Adjutant General for Musketry and be station staff officer.
- 2 Assistant staff officers (on probation).

Each brigade to be under the command of a colonel, with the rank of brigadier, who will also vacate on promotion, subject however to being continued in command for the full five years, provided the lieutenant-general commanding the *corps d'armée* and the major-general of the division recommend such extension, and subject also to selection on promotion to rank of major-general to the command of a division, on a vacancy occurring.

Brigade staff to consist of—

- 1 Colonel on the staff (with the rank of Brigadier).
- 1 Brigade Major.
- 1 Staff Officer and Interpreter.

18 Does your Excellency consider that it would be advisable to place the administration of the royal artillery in India more directly under the Adjutant General or Chief of the Staff, as is the case with the other arms, the Adjutant General being provided with assistance in special artillery questions or technical subjects in the person of the Inspector General of Artillery?

18. Without producing any adequate result, this step would add one more to the channels through which the administration of royal artillery is conducted, increasing delay in the settlement of questions and the communication of orders. Our steps, I think, should be in quite the opposite direction, and tend to decentralization rather than further centralization in artillery matters.

19. Would it not be in all respects a more efficient arrangement if the Inspector General of Artillery acted as the artillery adviser of the Commander-in-Chief; the Inspector General having two staff officers to assist him, one of whom should carry out the duties now performed by the present Deputy Adjutant General of Royal Artillery in India? Or in other words, the amalgamation of the offices of Inspector General of Royal Artillery and Deputy Adjutant General of Royal Artillery effected, making the former the head staff officer of the Commander-in-Chief?

19. The work of inspection is quite separate and distinct from that of administration, and cannot be carried on by the same person at the same time. It must be remembered that the duties of Inspector General of Artillery involve constant travel for from 6 to 8 months, during which time communication with him for administrative purposes is out of the question on account of the delay which it would involve. The amalgamation, therefore, of the duties of Inspector and Deputy Adjutant General Royal Artillery could only be nominal. I consider that the Inspector General should be the head staff officer of artillery in India, as his personal acquaintance with the condition and requirements of the artillery in all parts of India render him peculiarly fitted to act as artillery adviser to the Commander-in-Chief. I should imagine that he is largely so employed in this capacity under present arrangement. In all large matters the Inspector General of Artillery and the Inspector General of Ordnance (now *not* directly available) should be consulted; departmental and administrative details being in the hands of the Deputy Adjutant General Royal Artillery.

20. In your relations as Commander-in-Chief with the Military Department of Government, does your experience suggest any modifications of procedure or other matters tending to facilitate business, reduce expenditure, or add to general efficiency of administration?

20. The Commander-in-Chief's relations with the Local Government are confined chiefly to subjects connected with the Military Department and with the <sup>Military</sup> <sub>Public</sub> Works Department of the Government. No great reduction in expenditure would be made, but a very considerable amount of correspondence might be saved, by the Commander-in-Chief's views in his military capacity being recorded on the Council paper, instead of, as now, in an official letter through the Adjutant or Quarter Master General's Department. The course of a letter through the several channels will illustrate my meaning.

This letter is (1) recorded in the Secretariat; a short summary of the subject is made, and it is transmitted (2) to the Governor, who returns it (3) to the Secretary, for transmission (4) to the Commander-in-Chief in Council. The Commander-in-Chief initials the docket, or records his views on the subject in a minute, and, if necessary, sends it on to the civil Members of the Council; but under ordinary circumstances he returns it (5) to the Secretary, by whom it is sent (6) to the Adjutant or Quarter Master General (as the case may be) for the opinion of the Commander-in-Chief.

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The correspondence is then again submitted by the departmental officers (7) to the Commander-in-Chief; and his views are recorded by the departmental officers, who returns the letter (8) to the Secretary, by whom, if necessary, the correspondence is again submitted (9) to the Governor, before being sent (10) to the printing office. On the return (11) of the printed form, the Government Resolution is again sent (12) to the staff officers of the Commander-in-Chief and to the Military Department of the army to which it belongs, to be acted upon. Thus after a lapse of at least a fortnight, and the transmission of the correspondence, by post or messenger, through 12 different stages, an order from the Government of India may be acted upon or replied to by the Commander-in-Chief of the Bombay army.

21. Does your Excellency think that the department of ordnance, military works, commissariat, and military accounts should be brought more *en rapport* with the Commander-in-Chief; and if so, will you suggest the mode of giving effect to your views?

21. As the Commander-in-Chief of the Bombay army has no control over the military department of ordnance, public works, commissariat or control, except through the Governor in Council, to whom the heads of the above-named departments are solely responsible, I consider that the said departments should be brought more *en rapport* with the Commander-in-Chief of the local army, who cannot be said to command an army when the power of control over the most necessary departments of supply and transport is withheld, and the appointment of all officers connected with said departments is in the hands of the Governor in Council. There are 144 officers belonging to the Bombay army now in the employ of Government over whom the Commander-in-Chief has no, or only a very nominal, control. It is difficult to suggest a remedy while Government retains the control of military departments, and economy dictates the rule; but the anomaly exists, and must exist until the several departments are placed under the immediate control of the Commander-in-Chief, subject only to the control of Government in the matter of expenditure and audit.

22. Does your Excellency consider it an advantage or otherwise to have three separate departments of commissariat, ordnance, medical, clothing, &c., &c., for the work of the army of India?

22. Generally speaking, it would appear to be unnecessary to have separate departments for the work of the army of India; but when we consider the enormous extent of territory over which that army is spread, the different interests of the different presidencies, the necessity for, especially in making contracts, prompt decision, and local knowledge, I am of opinion that the commissariat of Bombay should be kept, like its army-corps, distinct and separate, as at present, under its own responsible head.

The same ruling does not apply so directly to the ordnance, as I have no doubt a reduction in expenditure might be made, if the direction of the ordnance department were placed under one head, who could regulate the demands and supply between the different presidencies, and not allow vast supplies to be accumulated in one presidency, while there may be a deficiency of the same articles in another.

The medical department is susceptible of improvement by abolishing the two separate departments, *viz.*, European and Indian (local); but I see no object in centralizing the whole medical department of the armies of India under one head. No saving of expense would accrue, and much inconvenience might arise, if the demands of the several presidencies were left to the decision of one central office.

23. Is your Excellency of opinion that any reduction can be made in the number or class of British troops serving in India? Could India dispense, for instance, with any regiments of infantry or cavalry or any batteries of artillery; or could garrison batteries at any station safely take the place of field batteries, or field batteries take the place of horse artillery?

23. I do not consider that any reductions can be made either in the number or class of British troops serving in India.

On the contrary, as far as regards Bombay, I should be glad to be able to relieve the one cavalry regiment now always stationed at Mhow by another regiment, which would be extremely useful, if not absolutely necessary, at Kirkee or Ahmednagar.

The substitution of horse, field, or garrison batteries, the one for the other, can only be decided by the object for which any one or other of these batteries is required. Their *rôle* is distinct, and the proportion of each arm must be determined by the general measures that may be decided on for the military occupation and defence of the country.

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24. Bearing in mind the fact that the annual cost of officers to men is as follows—

	For a regiment, British cavalry. Rs.	For a regiment, British infantry. Rs.
Officers	1,46,797	1,43,793
Non-commissioned officers and men	1,14,061	1,76,126

is your Excellency of opinion that any change in the organization of regiments is possible so as to maintain the fighting strength of the British force in India, and at the same time diminish the relative cost of officers to men?

25. In your opinion is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the Home army?

26. In your Excellency's opinion would it be advisable, apart from the question of reduction of the strength of the army, to modify the present proportion of British to Native troops?

27. Reviewing the Enlistment Act of 1870, together with the Regulations issued under the Act, War Office Circulars, clauses 36 and 189, of 1878, especially as applicable to India, are you of opinion that in the event of a local force not being employed, any further modifications of existing Acts should be made?

28. Can you suggest any means by which the present cost of supplying British soldiers for service in India can be reduced, without decreasing in any way their efficiency?

In discussing this subject, a fair consideration must be given to the share India should take in support of the general maintenance of the British empire.

24. In order to diminish the relative cost of officers to men, it is only necessary to increase the number of rank and file, and to prevent the embarkation from England of all men under say 21 years of age. Looking to the medical statistics, I should prefer even an older soldier, it being evident that the mortality (*i.e.*, cost) of the lads who are now enlisted and sent to India must add very materially to the relative cost of officers to men.

25. I cannot consider that greater efficiency can be attained by the substitution of a local British force for the British army that now holds India. Economy might be attained in transport by enlisting men specially for long service in India; but the collapse of the European army (as regards efficiency) raised and maintained by the late Hon'ble East India Company should serve as a warning to prevent the repetition of a local army, which at the best could only be subordinate to the Imperial troops from England.

26. Under no circumstances should the relative strength of British and Native troops be modified. Looking to the very large numbers of troops maintained by the Native Princes of India, and to the evident efforts of these Princes to make their armies equal to, if not superior to, the Native army of mercenaries now employed under the British Government—a Government repugnant to the religion and feelings of every Native—policy would demand a larger proportion of British to Native troops than is now maintained.

Under no circumstances should that proportion be reduced until we can restore to the ranks of the British army the same class of non-commissioned officers, the backbone of a regiment, and the same description of men, inured to danger and to climate, that saved India in the time of the mutiny.

27. The Enlistment Act for 1870 gives to the Secretary of State for War power to determine the limit of enlistment up to 12 years with the colors. If this power had not been abrogated by a Horse Guards Order, all British infantry required for service in India could be enlisted for the full term of 12 years; and the Act should so far be modified as to allow of every man physically fit being re-engaged for a further term of 9 years, making in all 21 years, before he becomes ordinarily eligible for pension.

The whole of this service need not necessarily be passed in India. The object will be gained if on completion of 21 years' service with the colors, at home or abroad, he should be entitled to pension. Pension to be paid by the Indian Government if the man has served 15 years in India, and by the two Governments in relative proportion if, after 9 years' service in India, the health of the man fails, and the greater part of his service for pension is passed out of Indian limits. No man should be allowed to embark from England until he has completed 21 years of age. Supposing that he entered at 18, this would give 9 years' service in India, if not re-engaged, and 18 years' service in India or with the colors, if re-engaged to serve for pension.

28. The cost of supplying British soldiers for Indian service may be very materially reduced, and with considerable increase to their efficiency, by not permitting any soldier to embark for India from England or elsewhere until he shall have completed 21 years of age, or 3 years' service at home or with the depôt. Medical statistics show that it is the very young men who succumb to climate. Many of these very young men die and are a loss to India to their full cost. Many are invalided, thereby increasing the cost of transport; while all are for a greater or less time in hospital, and consequently a burden and an expense to the State.

By the course suggested in my reply to the previous question (No. 27), long service and pensions would be restored to the army in India: and the restoration of these two essential points, which not only made efficient non-commissioned officers, but excellent soldiers, would, I believe, reproduce the old stamp of British soldiers who formed the army of India at the time of the mutiny of the sepoy regiments.

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29. There is a large staff of Assistant Adjutant Generals, and Deputy Assistant Adjutant Generals for Musketry, Regimental Instructors and Assistant Instructors of Musketry, throughout India.

Does not your Excellency consider that regimental instruction in musketry can be carried on by Company's officers as part of their ordinary military duty, and that the staff for musketry inspection can be largely reduced; the duty of inspection being carried on by generals and their staff, assisted, if absolutely necessary, by a specially trained officer?

29. In the Bombay presidency there is one Assistant Adjutant General and two Deputy Assistant Adjutant Generals for Musketry.

Each European regiment (9) has a Musketry Instructor, but there is no Musketry Instructor allowed for Native infantry regiments. The appointment of Assistant Instructor of Musketry in European regiments may be considered abolished, as there is no pay for such officer.

In the Native army, to which I assume that the question is particularly directed, I do not think, judging by the returns, that the method of instruction is properly understood; nor do I think that the Native officers are as yet capable of teaching the ordinary musketry drill.

In England schools exist at which officers may learn this very important part of a soldier's duty; but in India the only schools of instruction are the annual meetings got up by private subscriptions, and carried out by the zeal and exertions of the officers who compose the musketry staff.

For the present, a specially trained officer should continue to be entrusted with the inspection of regiments, as I feel sure that this duty would not be effectually performed by generals, or their staffs.

Even if the duties of inspection could be so carried out, the preliminary drills and instruction of the sepoys would be left to chance, as, owing to the want of trained officers with regiments, the instruction is necessarily faulty.

I should advocate the appointment of a trained officer instructor for each regiment, the compulsory instruction of every European and Native officer, all of whom should become marksmen; and the more frequent practice of the sepoys, not only at the target, but at field-firing, to give them confidence in their arms, for which a special allowance of ammunition would be required. Every ricochet shot, fairly delivered, should count. It is of more importance to make men fire *low* than to deprive them of the very insignificant benefit arising from being able to add such shots to their score.

30. Is any reduction in the Judge Advocate General's Department practicable by the concentration of work at head-quarters; courts-martial being conducted by officers with the usual allowance for the discharge of this duty, and in very special cases by an officer deputed from head-quarters?

30. The Judge Advocate General's Department in Bombay consists of one Judge Advocate and two Deputy Judge Advocate Generals, specially appointed, after having passed a departmental examination in military law.

Judging from the mistakes which occur in the proceedings of ordinary district and regimental courts-martial, I cannot recommend any reduction in the very small staff of Judge Advocates in the Bombay army.

If the work be concentrated at the head-quarters of the army, there must be *one* deputy to conduct the proceedings of courts-martial at distant stations, and to assist the Judge Advocate. Until regimental officers, generally, attain a more accurate knowledge of military law and the forms of procedure, it will be necessary to appoint a qualified officer to conduct the proceedings of all general and any special court-martial; consequently the reduction of one deputy would be no saving to Government.

31. Is it necessary to retain the allowance now passed to interpreters of British cavalry and infantry regiments? No such allowance is found necessary for batteries of artillery, with large Native establishments.

31. No such allowance being found necessary for batteries of artillery with large Native establishments, it may not be considered necessary to maintain interpreters with cavalry and infantry regiments; but it must be remembered that, in doing away with such appointments, one of the very few inducements now offered to regimental officers to qualify in Native languages is withdrawn; and as court-martial duties must be carried out by a paid English officer, as interpreter, very little saving would be effected by the change.

32. Does your Excellency see any objection to the assimilation of the scale of syces allowed to British cavalry? Excluding the horses of the non-commissioned officers, for which one syce each is allowed, the present scale is in Bengal one to two, in Madras one to four, and in Bombay one to three horses: which of these scales would your Excellency adopt?

32. There is only one British cavalry regiment attached to the Bombay army. I believe that the Madras scale of one syce to every four horses would be found sufficient; but the syces must be well paid.

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33. Might not bazar sergeants be abolished ?

33. Bazar sergeants can be dispensed with as soon as the new cantonment rules are published.

It is understood that provision will be made for the employment of qualified civilians, who will be paid and do the duties now required of bazar sergeants in a proper and efficient manner.

34. (a) Does not your Excellency consider that the present expenditure on punkah-pulling is excessive; are not large reductions possible; and would it not be feasible to reduce the cost of punkah-pulling by resorting to the old system of a fixed allowance per company, &c. ?

34. (a) In the Bombay presidency the climate does not necessitate any great amount of expenditure on punkah-pulling, which is required at very few stations. The cost has been reduced by the introduction of a lever punkah, not altogether satisfactory.

(b) Would the abolition of khus-khus tatties, except in hospitals, cause any discomfort or risk to the health of the troops ?

(b) Khus-khus tatties are only used at some of the northern stations. The medical officers say that they cannot be abolished without risk to the health of the troops in hospitals.

(c) Can your Excellency suggest any way of reducing the very heavy expenditure annually incurred in the purchase (or manufacture) and repair of barrack furniture, barrack bedding, &c. ?

(c) The repair of barrack furniture has, I understand, been very recently made over to the engineers department; but I cannot say with what effect on expenditure.

35. Does your Excellency consider it necessary to maintain any reserve of Government horses; and if so, how many; and on what basis should the reserve be calculated ?

35. It is, I think, necessary to maintain a reserve of Government horses; and I would fix the number at 200 for this presidency. This number represents rather less than the average number of remounts which have been required yearly by British cavalry and batteries of royal artillery in the Bombay army for the last five years. Four batteries have recently proceeded on service from this command; and, in order to complete them, it was necessary to withdraw 103 horses from other batteries. I do not think, therefore, that 200 is more than should be kept in reserve to meet emergencies, or more than are likely to be absorbed within a year on ordinary occasions. The intermittent state of the horse market in Bombay is a strong argument in favor of the establishment of a reserve, as horses are only obtainable there at certain times of the year.

Should this reserve be attached to corps and batteries, or to one or more depôts ?

There should also be a yearly importation of mules from Persia for mountain batteries. The dealers should be encouraged to bring a few with the horses from the Gulf. The mules that are getting past their work in the mountain batteries should be handed over to the commissariat, by whom they could be utilized for some years longer.

36. If the former, to what particular division of the army should they be posted ?

36. The reserve should be attached to a depôt on a line of rail and in a good climate. Ahmednagar answers these conditions. Horses are known to thrive there well, forage is cheap, and the requisite stabling is available in the deserted cavalry stables.

The difficulties of attaching the reserve to batteries are—

1st.—The horses would then be separated, and it would be necessary to collect them from various quarters to meet a sudden call.

2nd.—They would lose the advantage of being in the best climate that can be selected.

3rd.—Additions would have to be made to the existing stabling.

37. Would your Excellency approve of the reduction of the establishment of horses for horse and field batteries to the war scale laid down in Army Circular No. 186 of 1877, deducting such carts as in India are drawn by bullocks ?

37. There being no reserve of horses at present established, and horses being very scarce in Bombay, except at particular seasons, I do not think that any reduction ought to be made in the established number for horse or field batteries. Indeed the efficiency of the batteries in the field in time of war would be greatly increased by the substitution of horses, instead of bullocks, in battery carts.

38. Can your Excellency suggest any improvements in the constitution and working of the commissariat department ?

38. The Officiating Commissary General (Colonel Willoughby) has in his replies to the questions transmitted to him (E) taken such a broad and liberal view of the whole question of commissariat organization, and has so much practical knowledge, of which I am deficient, that I can only refer to his replies, and record my own opinions which are derived chiefly from Colonel Willoughby's experience.

The points which would appear to require notice are—

(a) The large supervising staff of the department.

(a) As regards the large supervising staff of the department, I believe that, in order to avoid peculation, the staff must be adapted to the necessities of the moment, reducing it at once to the ordinary establishment so soon as the pressure has passed.



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(b) The number of senior officers of high rank and with high pay, doing comparatively subordinate and unimportant work.

(c) The large office establishments kept up with each executive officer in consequence of a want of simplification and unification in the examination of accounts.

(d) Relative advantages of the contract and agency system of supply.\*

(e) Expense of the movement of commissariat stores, owing to want of supervision and system.

(f) As to the advisability of having three separate departments for India, each with its own large supervising and office staffs.

(g) The advisability of bringing commissariat duties more within the knowledge and control of the general officer commanding both in peace and in war.

(h) Whether it would not be advisable to confine the operations of the commissariat department entirely to the issue of consumable stores, taking from it the issue of such things as liquor, bedding, &c., which do not seem to appertain to it.

(i) What should be the organization of a division of transport in war, i. e., as to number of animals, officers, supervising staff, drivers, artificers, and veterinarians?

39. What are your Excellency's views generally regarding the organization of the transport for the army in India?

The following points suggest themselves—

(a) As to whether the transport should be under the commissariat, or organized as a separate department?

(b) What are the arrangements which your Excellency would propose should be carried out for the formation of a nucleus of a transport department by utilizing existing carriage, such as moveable columns, and without adding to the present cost of these? How could a system of regimental transport be organized?

(c) As to the most effectual means of securing the speedy collection of transport in the event of a war.

(b) High rank and high pay seems to be the normal condition of Indian departmental officers, who, having attained rank rapidly, cling to their appointments, and are obliged to do unimportant work, which might be done equally well by more subordinate officers on less pay.

(c) I am not prepared to say in what manner a simplification and unification in the examination of accounts would affect the office establishments of executive officers.

(d) The contract system prevails in Bombay; and can hardly be changed for a better.

(e) The expense of movement of stores does not arise from want of supervision, although it may arise from a want of system. Colonel Willoughby recommends that a commissariat commissioned officer should be employed at all stations where British troops of more than one arm are stationed; and states that two important stations are now under warrant officers.

(f) Although the supervising and office staffs may be large, it would appear to be desirable to maintain the three separate departments of Bengal, Madras, and Bombay on account of the great dissimilarity in the different presidencies of the mode and conduct of business matters, contracts, &c., and the necessity of prompt decision and local knowledge to avoid deception, so universally practised by Native contractors.

(g) If the provisions of the Government of India's letter (No. 941) of 19th February 1877 are properly carried out, the general officer is able to give his orders direct to the commissariat officer, who ought to be, and really is, under the immediate orders of the combatant officer in command in time of war, and of the general officer of the district in time of peace.

(h) I consider the course suggested in this portion of the question to a great extent advisable.

(i) See Colonel Mignon's very useful little manual or hand-book on commissariat organization.

39. I am not aware that there is any organized system of transport in the Bombay army.

Moveable columns are established at all the larger stations; and they have a certain amount of Government transport always ready (but utilized when not required) to enable the column to move at very short notice. This transport might rapidly be supplemented by the employment of the carts and bullocks of the country, and is a good nucleus on which to organize a transport service, which, however, I do not consider necessary as a separate department. In November last, I ordered by telegram, without previous warning, the moveable columns to march at daylight on the following morning four miles out and back to the cantonment. This experiment had never been tried before, so that in some few cases the transport was not wholly available, but the columns moved at once as ordered, and only with 12 hours' notice.

As regards the several points to which my attention is drawn, I believe that—

(a) For the requirements of an army in the field there should be two distinct divisions of transport, viz., for the commissariat and for the other requirements of the army.

(b) Moveable column transport, as at present organized in this presidency, offers a good nucleus on which to utilize existing carriage, without adding to cost. Except as regards the surplus ammunition, I do not advocate a system of independent regimental transport.

(c) Through the agency of the civil officers of Government in time of war, transport adapted to the particular field

\* *Vide* Financial Review of commissariat Department, 1877-78, paragraphs 18, 21, 57, 86, 109, 117, 119, 131, 130, 131, 139, 140, 143, 152, 154.

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(d) Whether it would not be advisable to endeavour to introduce a better and a lighter description of cart into India with a view to the substitution, when possible, of wheeled for pack carriage?

(e) Whether your Excellency thinks anything can be done to increase the supply and improve the breed of mules?

(f) Looking to the fact that the supply of camels is believed to be steadily decreasing, can you suggest any means by which that supply can be kept up? Could not elephants be largely dispensed with as army transport?

(g) Which do you consider it most advisable to use on service,—Government or hired transport?

(h) Whether you think that, in the event of a Government nucleus being kept up, much of the cost could not be saved by its utilization for the relief of troops and the carriage of commissariat and other stores?

(i) What should be the organization of a division of transport in war, i. e., as to number of animals, officers, supervising staff, drivers, artificers, and veterinarians?

40. Does your Excellency consider that the Military Works Branch of the Department Public Works should be brought more directly under the military authorities than at present, and could not its organization be so arranged as to make the engineer department more efficient for war? Or should the Military Works Branch be abolished, the ordinary works being constructed and maintained by the ordinary Public Works staff, a special establishment being appointed, under the Military Department, for any large works requiring peculiar knowledge or skill?

41. In what way can your Excellency suggest the reduction of the expenditure of the Military Works Branch, Public Works Department?

(a) Could not the expenditure for each year be limited to a fixed annual grant, and the completion of the works necessary for the accommodation of troops and the defence of the empire be distributed over a series of years?

(b) What is your Excellency's opinion of the barrack accommodation in India generally? Are not many of the barracks constructed in late years designed on a most extravagant scale; are these new barracks any more comfortable or conducive to the health of the occupiers than many of the older and cheaper single-storeyed barracks?

(c) Might not many of the barracks throughout India be constructed in a more economical style; and might not many of the troops on the hills be housed for many years to come in cheap huts or cottage barracks?

(d) Could not the ordinary repairs of completed barracks, and the construction of barracks on standard plans, be well left to the Local Governments, subject to inspection by officers employed under the Government of India?

of operations can be very effectually and speedily collected, as was evidenced in Sind lately, when nearly 20,000 camels were collected for the service of the Kandahar column, after its own carriage had failed.

(d) In all mountainous and difficult countries I believe that pack carriage is preferable to wheeled carriage; but undoubtedly a lighter description of cart might be introduced with advantage.

(e) Endeavour has been made by the introduction of stallion jackasses to improve the breed of mules, but I am not prepared to say with what success.

(f) I have no information to offer any suggestions regarding the increase of the supply of camels, which are bred extensively in Sind and Rajputana. Sind was almost denuded of serviceable camels by the demand which was made on that province during the recent campaign; and I believe the Rajputana camels are not well adapted to rough countries. Elephants are only useful for heavy draught beyond the reach of musketry-fire.

(g) Whenever hired transport can be made available, it is less costly than Government transport, which, to be efficient, must be maintained at great expense for an indefinite time during peace.

(h) By the universal adoption of railway carriage in the relief of troops, much of the cost of transport is saved, and no advantage would be gained by keeping up Government transport, for that purpose, during peace.

(i) The organization of a division of transport is laid down in the printed regulations, and much practical information on the subject is contained in a small manual published by Colonel Mignon, Commissary General, Bombay army, for the use of the commissariat department.

40. I can see no reason why the Military Branch of the Public Works Department should not be brought more directly under the military authorities, by the submission, in the first instance, of all military questions to the Quarter Master General for the opinion of the Commander-in-Chief. Government may require the control of expenditure; but the military authorities are responsible for the efficiency of the work. There is no separate Military Department in the Public Works in the Bombay presidency.

41. As already stated, in the Bombay presidency there is no separate Military Works Branch in the Public Works Department.

(a) The expenditure is limited, and, if one may judge by the result, too much limited, by a fixed annual grant. So that the completion of all works is really distributed over a series of years.

(b) The barracks recently constructed in the Bombay command are more costly than necessary, but are not on what I should call 'a most extravagant scale.' I believe that the new barracks are not more comfortable, although infinitely more commodious and handsome, than the older and cheaper single-storeyed barracks which prevailed formerly in India. I have a strong feeling that my regiment twenty years ago, when occupying less palatial buildings than do regiments in the present day, was infinitely less subject to fever, caused, as I believe, by overheated men being exposed to the extreme ventilation and thorough draughts of the present costly buildings.

(c) The present single-storeyed barracks are very substantially built, and are excellent in their design; but I think their cost is out of proportion to the requirements of British soldiers, who are not accustomed to, and do not appreciate, so much cubic space, which means 'thorough draughts' and little real comfort.

(d) The Local Government of Bombay now undertakes through the Public Works Department the repairs and construction of barracks on standard plans, which are carried out at every station with but little reference to climate, local

## QUESTIONS.

## ANSWERS.

(c) Might not European soldiers be more frequently employed in public works, especially in the construction of their own barracks on the hills and the roads leading to them?

42. Do you consider that a clearer and more appropriate classification of the subjects dealt with in each department of the staff and the army could be adopted; and if so, would it not add to efficiency, and tend to the reduction of labor?

43. Do you consider that the amount of correspondence and returns in the army could be reduced; and would you approve of a committee to consider this question?

44. Do you consider that the system of payment, audit, and army account is susceptible of improvement; and what alterations would your Excellency suggest?

45. Is your Excellency in favor of station (or general) hospitals in large cantonments, and field and base (or general) hospitals in the field, in place of regimental hospitals?

46. Do you think it desirable that the power formerly granted to commanding officers of Native regiments to dismiss men of bad character or inefficient for service should be restored?

47. (a) What changes, if any, would your Excellency recommend in the constitution, organization, and equipment of the Native cavalry and infantry?

(b) Is your Excellency in favor of the substitution of pioneer regiments for line regiments; and could more Goorkha regiments be raised?

circumstances, or other contingencies essential to the comfort and well-being of the occupants.

(c) I believe that much more use might be made of British soldiers if the medical officers did not at once negative any attempt to employ them usefully in time of peace.

In war time British soldiers are exposed at all hours to all the vicissitudes of climate, without apparently any injurious effect.

42. I believe that the classification of the subjects dealt with in the staff office of the army has been very carefully considered, and that each department has adopted a system to secure efficiency and reduce clerical labor to the utmost.

43. The necessity for reducing the amount of correspondence and returns in the army has frequently been mooted; but I believe that their reduction depends very much upon the idiosyncrasy of the head of the department, and that but very little benefit would arise from further enquiry by committee.

44. The subjects contained in this question are of such importance, that I only consider myself qualified to give a concise answer through the information afforded by the Officiating Controller of Army Accounts; who very candidly admits that the system of audit is searching and prompt, but repudiates the possibility of eliminating trivial objections for fear of establishing precedents; and he admits of no exercise of judgment in subordinate auditors. The payment of the army is concluded before the middle of the ensuing month for which payments have been made; and the audit of accounts is completed so rapidly, that the regimental paymaster is relieved from much responsibility.

45. There is much economy in station hospitals for large cantonments, whereby the dispensing and cooking departments, as well as the establishment of servants, are much reduced. But there is a strong prejudice in European regiments, as there would be in private life, against patients being sent to a station hospital, to be treated by the medical officer on duty instead of by the regimental medical officers, for whom the old soldier not only had a great respect, but a personal regard. This he does not feel for a stranger, who cannot take the same interest in his ailments. Every regiment should have its own medical officer; but the services of this officer could of course be utilized in large cantonments at station hospitals. On active service, field hospitals become 'base' or general hospitals, according to their position and permanency. The old system, by which every regiment was encumbered with a large hospital and medical establishment in time of war, is now shown to be impracticable.

Field hospitals, with one or more regimental surgeons and stretcher-bearers actually present with the regiments in the field, seem to meet all the requirements of active service.

46. If I could believe that, under the present system, commanding officers of Native regiments took as much interest in the welfare and discipline of their regiments as formerly, I would restore to them the power of dismissing any man (sepooy) of bad character, or who was otherwise not really efficient; but I have not that faith in the present system, and therefore I consider that the restraint on dismissal given by the summary courts-martial should be continued.

47. (a) I consider the organization, constitution, and equipment of the Native cavalry and infantry must be made the subject of a separate minute, if it is necessary to supplement the very voluminous correspondence that took place under my predecessor, Sir Charles Staveley.

(b) As every regiment should be equal to the performance of any duties that may be required of it, the substitution of pioneer regiments for line regiments would lead to invidious distinctions, without any corresponding benefit to the army at large. Goorkhas make excellent soldiers; but a preponderance of any particular class or race in the Indian army is to be deprecated.

## QUESTIONS.

## ANSWERS.

48. In the ryotwari districts, or in other parts of India, would grants of waste lands, revenue free for their lives, be acceptable to Native officers and soldiers in lieu of part of their pension?

49. Would it not be desirable to alter the designation of rissaldars, rissaidars, and subadars of the Native army, who now command troops and companies, to that of captain, and jomadars to that of lieutenant?

50. For the education of cadets of good family for direct commissions as Native officers, would it not be desirable to afford them the means of instruction in military schools, say one at Roorkee for Eastern, and one at Poona for Western India, where the fees should be sufficiently high to ensure only gentlemen of a superior class entering their sons, and to which nominations should be made by the Viceroy?

51. To what extent would you recommend the grant of commissions, otherwise than by promotion from the ranks; and what should be the attainments qualifying for such nominations?

52. With reference to the comparative small amount of pension to pay of Native officers, and to afford them greater inducements to retire, would it be desirable and acceptable to them to establish a system of deferred pay, by deduction of a small percentage, say 5 per cent., from the pay of all Native officers hereafter promoted, to amass to individual credit, with interest say at 4½ per cent.? The sum to be handed over on retirement, or to his heirs at any time in case of his death, and to be inalienable by any authority, except by being confiscated to the State in case of cashiering.

53. Has your Excellency any suggestions to make with a view to alter or improve the terms on which Native officers and soldiers can obtain pension, or to alter the periods after which Native officers and soldiers can obtain pension on medical certificate or otherwise?

54. Do you consider that, under a proper system of concentration and distribution at important centres, the strength of the present Native army in India can be reduced, should it be resolved to create a system of reserves supplying extra men to meet a call for service, say to an extent equal to half the strength of the present Native army?

48. Grants of waste land would not meet the approval of Native officers and soldiers in lieu of pension. The system was tried and failed, because the land was barren, and the want of capital prevented its being brought into proper cultivation.

49. I can see no object in altering the designations of Native officers, which now serve as a distinction to prevent confusion between their regimental rank and the rank of the European officers.

50. I have not sufficient experience to state positively from personal knowledge what effect the education of Natives of good families in military schools would have upon the appointment of officers to direct commissions in the Native army. I should have thought that such an idea would be rendered impracticable from caste-prejudices; but if it were practicable, I doubt whether they would on appointment to regiments obtain that control over the various castes of sepoys necessary to make such cadets good and efficient officers. I think that our first care should be to improve the class of those enlisted into the army, either by extending the area of enlistment, or by giving additional pay to induce a better class to enlist. The training and education of a sepoy who has passed through the various grades of rank before he becomes an officer apparently fits him for the peculiar position he has henceforward to hold, better than if he were appointed direct to a commission in the army.

I do not think that such nominations, if feasible, should be made only by the Viceroy.

51. Compulsory retirement at the end of 32 years' service in all ranks ensures promotion, at a desirable age, to younger men who are serving in the ranks. I would not, therefore, recommend the grant of commissions, otherwise than by promotion from the ranks, except under very exceptional circumstances.

52. I cannot see that any advantage would be gained, either to the Native officer or to the State, by the introduction of any system of deferred pay; the terms of pension are generally approved, and no officer should continue in the service after he becomes inefficient, nor after he has completed the full period on the termination of which he becomes eligible for pension.

53. If the sepoy, at the end of 15 years' service, sees little prospect of becoming a non-commissioned officer, he endeavours to obtain his discharge on medical certificate on the smaller pension of Rs. 4 a month rather than await the full period of 32 years before he can be eligible for the full pension of Rs. 7.

In the Bombay army over 17,000 men are under 15 years' service, proving conclusively that Native soldiers only remain with the colors until they can secure a pension, however small, to supplement their earnings in private life.

54. For the reasons already stated, I do not think that the small force composing the Bombay army can be concentrated in the manner proposed. If the system of reserves were connected with the district police, so that, in addition to the ordinary police, a military police were established, the objections to the concentration of troops at important centres would cease, and the strength of the Native army might then be reduced to the extent of, say, one-third of the present number.

But I do not advocate this reduction, because I believe that reserves are altogether impolitic.

The best reserves are the separate armies of the separate presidencies, who, speaking different languages, and having different customs, are nevertheless paid by the same master to support the same Government, and maintain English supremacy, whether threatened on the north, east, west, or south.

## QUESTIONS.

## ANSWERS.

55. Would it be advantageous, in your Excellency's opinion, to establish such reserves; and if so, on what principle?

55. I do not consider that in a military point of view any advantage would accrue to the army by the establishment of such reserves, although a small economy might benefit the State; because the sepoys who now mangle to obtain their discharge after 15 years' service would be available to form reserves on possibly Rs. 2½ or Rs. 3, instead of Rs. 4, which they now obtain. This apparent saving is not, however, real, as the same man would continue for ever on the smaller pension, whereas in the reserve he would obtain a higher pension after, say, 32 years' service.

56. Do you consider that the home or any continental system of reserve force could, with alterations, be adapted to the Native armies of India?

56. I have always been under the impression that the restoration of the martial spirit in India would be fatal to our supremacy. If, however, as these questions of reserves lead me to suppose, there is no objection to trained men being scattered throughout the villages in country districts, possibly training the armies of the Native Princes, I can see no reason why the home system of reserves should not be adapted to the Native armies.

57. If you object generally to the creation of extra reserve forces of Native troops (but having regard to the fact that annually a large number of men are transferred to the pension lists, and that the cost for the total number of pensioners, viz., 63,178, is Rs. 46,98,539 per annum), do you see any reason why the present system of invalid pensioning after 15 years' service should not be abolished, and a limited number of effective men be passed to a reserve on reserve pay, after say not less than 8 years' service, non-effectives being at all times examined by a medical board, and struck off with gratuities equal to one month's pay for regimental or reserve service, as the case may be, for every year's service?

57. It must always be borne in mind that the Native army in India is purely an army of mercenaries, animated by no feelings of love for British rule, but by religion and by tradition hateful of our presence, and antagonistic to our Government. Natives give only that amount of allegiance we pay for, and that amount of service we buy. Under such circumstances it would not appear to be desirable to pay men for doing nothing, in a country where they might become mischievous unless retained under the immediate control of their officers, which could only be effected at considerable expense.

In such an organization the men of the reserve could be retained under the immediate control of their own regimental officers, and be liable, during a fixed period, to be called out at any time in case of war to join their own regiments and for one month's annual training at the depot; after which period they might pass into a second reserve, liable only to be called out for garrison duty in case of war, until entitled to reserve pension.

I do not therefore see that any further reserve is necessary than that now formed by the older pensioners, who, I am informed, were called out in this presidency during the mutiny, and did good garrison duty. The present system of invalid pension after 15 years' service might, therefore, be abolished, and all men retained for the full period of their enlistment in the army; but, if found inefficient before their full time for pension arrived, they might be discharged with a gratuity, proportioned to the number of years' service they have given to the State.

On the score of efficiency and economy, and to afford the means of maintaining regimental depôts and such reserves as have been proposed above, might it not be advisable to increase regimental strength from 600 to 800 sepoys, with a corresponding reduction of the number of battalions in the proportion of 4 to 3?

58. Would it be possible to utilize the men of the sappers and miners and the pioneer corps, who may have passed to the reserve, in arsenals, depôts, railways, and other workshops?

58. The corps of sappers and miners in the Bombay presidency is so small (there are no pioneer corps), that the number of men passed into the reserve and fit for further employment in arsenals, &c., would hardly be appreciable.

59. Would you, in like manner, approve of the conversion of Native cavalry corps into regiments of 4 instead of 3 squadrons, with a corresponding decrease in number of regiments from 4 to 3, a squadron commander and officer being added to each corps?

59. The paucity of this arm of the service in the Bombay army would prevent any reduction in the number of regiments, although it would be very desirable to increase the number of squadrons, with an increase in the number of officers to the extent notified, viz., one squadron commander and one troop officer being added to each regiment.

60. Should the Punjab and Sind Frontier Forces be placed wholly or entirely under the Commander-in-Chief in India?

60. All military forces should be under the control of the Commander-in-Chief of the territorial army or army-corps in which the force is acting; therefore the Punjab and Sind Frontier Forces should be under the command of the respective Commanders-in-Chief, subject to such local regulations as the state of the country may demand and its political officers deem necessary.

61. What are the communications the construction of which appears to be of the first moment from a military point of view?

61. India is now covered with a network of railways, daily increasing in extent, and rendering the construction of military lines of communication unnecessary. At the same time it is essentially necessary for the Government of India to maintain such a control over the working of railways, that no local difficulties may exist or restrictions be offered to the rapid transport of troops by rail in any direction, and at any time that their services may be required. The Bombay presidency is also well traversed by excellent highways which pierce the Ghâts in different places, giving easy communication between the coast and the Deccan, and extending across the Bombay frontier into the interior of India. If these roads are kept in proper repair, there is little necessity for the construction of other lines of communication for military purposes.

POONA;  
The 13th September 1879. }

(Sd.) H. J. WARRE, Lieut.-Genl.,  
Commander-in-Chief, Bombay Army.

## II.

## STAFF CORPS.

Replies by His Excellency Lieutenant-General H. J. Warre, C.B., Commander-in-Chief, Bombay Army.

I do not consider that, personally, I have sufficient practical experience of the working of the system to be able to record more than a general desire that the present enquiry may be the means of abolishing defects in the staff corps, which, as applied to the Bombay army, if they cannot be considered as positively mischievous, are certainly not satisfactory.

The promotion of officers to the higher grades for whom there is no appropriate employment has encumbered the army with field officers far in excess of its possible wants, thereby obliging them to undertake duties derogatory to their rank, and consequently entailing an expenditure far above any corresponding result; while the interests of the State have suffered by the disunion caused in British regiments by the removal of officers to serve in the staff corps, whose vacancies are not always immediately filled up.

I consider that it is only due to the careful study and consideration that he has given to the subject, to state that I have availed myself of Brigadier-General Brooke's (Adjutant General of the Bombay army) experience in replying to the questions submitted in the paper No. II on the Staff Corps.

## QUESTIONS.

1. What is your Excellency's opinion of the working of the staff corps system?

2. Beyond meeting the grievances of certain officers of the army, who in consequence of reductions came to be in excess of requirements, has its formation been beneficial or mischievous to the army?

3. Has it not thrown upon the State an enormous expenditure, with little or no corresponding result; and has it not encumbered the army with field officers far in excess of all conceivable wants?

4. Is it not demoralizing to an army that all the officers of that army shall be entitled to regular promotion, grade by grade, to the highest ranks of the army by mere expiry of a certain number of years in each rank or grade, and without any reference to merit or efficiency?

## ANSWERS.

1. The staff corps system of promotion differs so essentially in its main principles from that on which promotion in the English army has been, and is, carried on, that the two could hardly be expected to harmonize or agree; nor can it be for the interests of the State to promote officers to the higher grades, for whom there is no appropriate employment. The staff corps system may be said, in general terms, to have been as disadvantageous to the State in all its aspects as it has undoubtedly been advantageous to the individual officers, even though, in some instances, duties which would be equally well, if not better, performed by subalterns, are now required of captains and field officers. I am not aware of any other instance of a system of promotion, such as that which was devised for the staff corps, *viz.*, promotion by mere length of service without reference to the necessities of the State. The Bombay staff corps now numbers 440 effective officers; of these 234 are field officers, and 206 captains and subalterns. Before the 1st April 1880, 11 of the captains will complete 20 years' service, and will then be promoted to the rank of major, when the field officers will number 245, against 195 captains and subalterns. The staff corps rule of promotion has been applied to the officers on the general list (*i.e.*, officers who entered the service between 1857 and the formation of the staff corps, but who did not enter the staff corps) with similar results, as the 44 captains who are now on those lists will all be promoted to the rank of major before April 1882. These figures seem to prove that the working of the staff corps system cannot be said to be in any respect satisfactory.

2. The problem which the Government of the day had to solve was doubtless the most difficult which could well be imagined, as they were bound by the covenants which existed between the East India Company and its officers to deal very tenderly with individual interests; and it would appear that these interests, rather than those of the State, received first consideration. As a matter of fact, although it is probable that this view might not be readily accepted by officers of the Indian army, the effects of the mutiny were, on the whole, favorable to the officers of the East India Company's service. At the same time it cannot be said that the rate of promotion arrived at under the staff corps system is at all in excess of the requirements of the service; and though that system imposes an unnecessary financial burden on the State, it can hardly be described as mischievous to the army.

3. I reply in the affirmative to both these questions.

4. This question puts the case in an extreme way. It is true that officers in the staff corps do rise to the highest grades by the expiry of a certain number of years, and that only by the adoption of the severe measure of placing an officer on the half-pay list can his promotion be prevented or retarded; but, even in regiments of the British army, it demands the exercise of special powers to prevent the promotion of an officer when it comes to his turn to pass to the higher grade. At the same time there can be no doubt that an

## QUESTIONS.

## ANSWERS.

5. The three staff corps contain, exclusive of general officers and lieutenant-colonels in receipt of allowances, 1,961 officers: of these, no less than 404 are in civil employ. Many of these officers have not done any military work, others have had no connection with the work of the army for very many years; yet they all of them, under the rules of the staff corps, are qualifying by the passage of time for promotion to the highest rank in the army, and the colonel's allowances. If they hold on to their appointments long enough, they will receive a pension double the pension of the highest civil officers in the country; though they have from their first appointment been receiving precisely the same pay as civilians in the department to which they belong. Is not this, in your Excellency's opinion, a very serious blot on the system?

6. Out of the 1,467 officers who remain after deducting officers on civil employ, 1,187 are employed as regimental officers, and only 201 are employed on the military and departmental staff. Was it not an entire reversal of the proper order of things to form nearly the whole of the officers of the army into a staff corps, when the number of staff appointments bore so small a relation to the number of regimental appointments?

7. Is there any other army in the world in which the regimental officers of an army of 120,000 men would be taken entirely from the staff?

8. Is it not better that the staff should be officered from regiments, so that as many regimental officers as possible may acquire a knowledge of staff duties, than the regiments should be officered from the staff?

9. If your Excellency admits that the staff corps organization has been mischievous, would your Excellency leave it as it is, in consideration of the difficulties of establishing a fresh organization; or would your Excellency propose to abolish it?

10. Several schemes for reclassifying the officers of the army for the purposes of promotion have been suggested—

(1) That the classification should be entirely regimental; and that for this purpose several battalions should be linked into one regiment, and promotion up to the rank of second-in-command should go regimentally: command to go by selection. The regimental cadre, &c., include a certain percentage of officers in excess of regimental requirements, in order that the necessary number of officers may be withdrawn from the staff.

(2) That the whole of the officers of the three armies should be formed into one general list; that army promotion should go either by length of service in each rank or by seniority on the occurrence of vacancies in the rank above, the regimental promotion being confined to the officers of the regiment.

Would your Excellency be in favor of any such change in respect to officers joining the Indian army for the future?

element of uncertainty as to whether he will be promoted or not is a valuable incentive to an officer to endeavour to deserve the promotion which he knows he cannot claim as a right.

5. No officer on civil employment should be allowed to qualify for the rank of colonel. In this way, his passage to the higher ranks of the service would be barred in a perfectly legitimate manner. The present state of affairs as set forth very clearly in this question is most objectionable (*vide* reply to query 11, where the remedy for this is set forth).

6. I do not consider the staff corps in the same light as the general staff of an army. The staff corps is entirely a local creation, formed to benefit officers who are deprived of their legitimate calling by the dispersion of their regiments. The staff corps was intended to supply the reformed regiments with officers, as well as the several departments (civil and military), and cannot be considered a purely staff service corps.

7.

8. This appears to be the sound and proper principle, so long as the places of officers temporarily removed from their regiments for staff employment are at once filled up. I believe an officer is greatly improved for the general purposes of the service whose regimental experience and knowledge, which are the only sure foundation of military efficiency in the higher grades, are supplemented by the wider experience and self-reliance to be obtained by service on the staff.

9. I am not prepared to admit that the staff corps organization has, in the full meaning of the term, been actually mischievous to the army; but the fact that it has already been detrimental to the finances of the State, and will probably prove even more so in the future, renders it highly desirable that a beginning should at once be made towards abolishing the existing system altogether.

10. The officers of the army might be reclassified either—

(a) by giving the three staff corps fixed establishments of each grade, and promoting officers who were efficient and deserved promotion to the higher grades in succession to vacancies, as is the case in the royal artillery and royal engineers and the other regiments of the British service; or

(b) by forming the officers of four regiments into one list, to which would be added a certain percentage of officers in excess of regimental requirements, to provide for the demands of departments and the staff. Both army and regimental promotion should proceed as in regiments having four battalions in the British army. To this amalgamated list should be assigned a fixed establishment for each grade, say—

4 lieutenant-colonels,  
9 majors,  
10 captains,  
10 subalterns,

which would give 33 officers to each list and provide a margin of—

1 major,  
2 captains,  
2 subalterns,

for extra regimental employment. Officers so employed should be seconded for five years, and at the expiration of

## QUESTIONS.

## ANSWERS.

that time should, if on the military staff, rejoin their corps, and, if on civil or political employment, be required to elect finally which line they would adopt. There seems no reason to suppose that promotion would not proceed sufficiently rapidly in a cadre composed of 33 officers, of whom 12 or 13 would be field officers. The rank of major would of necessity carry with it the position of wing-commander; and to avoid too frequent changes the special appointment of second-in-command should be abolished. To an arrangement of this nature it will be objected that it would be necessary to transfer officers from one regiment to another on promotion; and this is inevitable. But it could be carried out without detriment to the service if the regiments so linked together for the promotion of the officers were those composed of the same classes and castes. The transfers would take place at considerable intervals; and rarely more than one officer of a regiment would be moved at a time. The difficulty which would no doubt arise of one regiment containing a larger number of officers suitable for staff employment than another, would have to be met by a process of absorption, and the transfer of the supernumerary officers to other regiments as occasions might offer.

The first plan would have all the objections, as far as regiments are concerned, of the present system, as it would perpetuate, though in a modified form, the dual lines of promotion which now make it possible for a field officer to be found holding a position in a regiment which should be filled by a subaltern; but it would meet the financial difficulty, and prevent the excessive increase to the ranks of the field officers. The second plan, though not free from difficulties in its initiation, presents a means of avoiding the double system of promotion which must eventually lead to complications; and would also have the effect of permitting a recurrence to a modified form of regimental promotion, which seems very desirable.

The course indicated in paragraph 2 of this question is not desirable.

11. Would your Excellency be in favor of calling upon all military officers now on civil employ to elect within a certain time between civil and military employment; and if they elect to remain in civil employ, to be prepared to give up the advantages of promotion in military rank and all claims to colonel's allowances, substituting for these privileges a pension calculated on the pension rules of civil servants?

11. The course indicated in this question seems to be most desirable.

12. Under the staff corps system, is your Excellency in a position to retard or refuse the promotion of an inefficient or incapable officer, or to accelerate the promotion of officers of distinguished merit and ability?

12. No.

13. When an officer is considered to be personally undeserving of further promotion, should it not be in the power of Government, on the recommendation of the Commander-in-Chief, to place him on half-pay; or to call upon him, if he is entitled to pension, to take the pension of his rank?

13. The Secretary of State can, and does, place an inefficient officer, or one who has misconducted himself in any way, on the half-pay list. It would possibly be advantageous that this power should rest with the Government; but as an appeal would in all cases no doubt be made to the Secretary of State, there are advantages in the original decision being given by him.

14. Should not the pension of officers in the army be fixed for the future on a scale the object of which should be to secure the services of officers during the prime of their life, and at the same time not to offer them inducements to drag on their service in hopes of an increased pension after they have ceased to be efficient?

14. This would be very desirable.

15. At what period of service should the maximum pension be obtainable; and what should this maximum be?

15. Thirty-one years' service, and £750 a year at the utmost.

16. If this principle be adopted, may not the system of colonel's allowances, which really amounts to giving a very high special pension, not to the most meritorious or most distinguished, but to the longest-lived officers of the army, cease?

16. A limited number of these pensions should be retained, and dealt with as rewards for long and good service; but officers should not be eligible for them till after they had taken the ordinary pension.



## QUESTIONS.

## ANSWERS.

17. Should all staff and departmental appointments, whether under your Excellency or under Government, be tenable for a limited period; what should this period be; and would it be advisable to vest the Governor-General in Council with authority to extend the period on the special recommendation of the Commander-in-Chief when, on public grounds, it is undesirable that an officer should vacate his office?

18. When an officer is passed over for command by his junior in the army, should he not be called upon to retire after a certain period of service?

19. Should not officers after five years' tenure of regimental command vacate their commands, subject to their being reappointed at the discretion of the Commander-in-Chief up to 31 years' service?

20. Should not officers who have been passed over for brigade commands be required to return to England under the terms of paragraph 2 of G. G. O. No. 707 of 1st August 1872?

21. In what way does your Excellency consider a reserve of officers can be provided for in time of war—

- (a) For regiments.
- (b) Military staff.
- (c) Departmental staff.

17. All military staff appointments are now tenable for five years; and this period in the *same appointment* should never be exceeded, though the power to authorize an extension, if necessary, should certainly be vested in the head of the Government. It would be highly advantageous if the appointments in the Military Secretariat of Government were also only tenable for five years, instead of being, as now, unlimited. It seems doubtful whether the five-year rule could be advantageously applied throughout all grades of the commissariat department; but the Commissary General should only hold that appointment for five years; and young officers, on first joining the department, might be seconded in their regiments, and required to elect finally for regimental or commissariat service at the end of five years. The pay department should be treated as a civil department, and the officers joining it dealt with as proposed in query 11.

18. As succession to regimental commands does not at present depend on army seniority *only*, this question would appear to refer to a state of things such as that suggested in clause 2 of query 10; but the course of action indicated is not one I would recommend, because, although an officer may not be considered sufficiently good to be selected for the command of a regiment, he may be quite efficient and useful in the less important position he may be holding.

19. This question seems to assume that an officer obtains the command of his regiment simultaneously with his attaining the rank of lieutenant-colonel; and that consequently when he reached 31 years' service, he would have had the command for five years. This is not the case at present in the Bombay army, as the average length of service of the commandants of Native infantry regiments is 33 years, and the average time in which the officers now in command attained their present position was 28½ years; and had it not been for the annual retirement scheme, these averages would have been still higher. A limit to the length of time an officer might hold the command of a regiment is, however, very desirable, and five years appears a sufficiently long tenure; and it is even worthy of consideration whether it would not be better to fix three years, with an extension of two more, in those cases where such might be considered really desirable. The adoption of this course would necessitate a change in the pension rules, to induce the retirement of officers between 20 and 26 years' service, and also the application of a system of compulsory retirements in the lower grades.

20. For the reason stated in the answer to question 18, I do not approve of the suggestion made in this query.

21. As long as the establishments of regiments and departments are maintained at a minimum, there appears to be no way in which the demands for extra officers on the outbreak of war can be met than by drawing on those regiments not required for immediate active service, the vacancies thus caused being filled as rapidly as possible by young officers from British regiments (if available) and from Sandhurst. Recent experience, however, proved that the capabilities of regiments to supply officers in this way were very limited; and made evident the objectionable nature of this arrangements, which rendered the corps from which the officers were taken inefficient, and naturally failed to provide officers of experience and knowledge for the special duties suddenly demanded of them. The only absolutely certain method of ensuring a sufficiency of trained officers for the requirements of war would be to allot to each regiment and department a certain proportion of officers beyond the number actually required for peace time. But this would materially add to the cost of the army; and it is therefore for consideration whether the necessity of the case renders a continuous expenditure of this nature justifiable.

POONA; }  
The 26th August 1879.

(Sd.) H. J. WARRE, *Lieut.-Genl,*  
*Commander-in-Chief, Bombay Army.*

*Minute by His Excellency the Commander-in-Chief, Bombay Army.*

Army reserves in connection with the district police.

The necessity for providing the Native army with a reserve is admitted.

The chief difficulty in India consists in disposing of this reserve during peace, so that an indefinite number of trained soldiers shall not be thrown on native villages, or scattered throughout the agricultural districts, thereby inculcating an undesirable military spirit amongst the now quiet and naturally non-military population.

Formation of the reserve.

In order to form a reserve we must consider—

- (1) How long a sepoy should serve with his regiment before he is eligible for the reserve?
- (2) How the reserve is to be disposed of in time of peace?

In nearly every regiment it takes twelve months to drill and train a recruit before he is fit to take his place in the ranks. For the next year the recruit is still learning his duty, and it is not until he enters upon his third year of service that he may be considered a trained soldier.

It may therefore be fairly admitted that the regiment is entitled to claim the services of every recruit for, say, 12 years.

This period may be considered the prime of every man's life, but after such an apprenticeship he may probably weary of the monotony of garrison life; and supposing that he has not obtained promotion, or is not aspiring to higher rank after this period (or the age of, say, 30 years), the sepoy would gladly change his soldier's life for that which gives him greater liberty, and throws him a little more on his own resources.

I find that every well-conducted infantry sepoy, after 13 years' service, would be in receipt of Rs. 9 per mensem, viz., Rs. 7 pay and Rs. 2 good conduct pay, with the expectation of obtaining another rupee a month good-conduct pay on completion of 15 years' service.

In addition to his pay, a sepoy would be in receipt of compensation for dearness of provisions, varying with the price of grain, from Rs. 1-8 to as much as Rs. 4 (or even Rs. 6 a month), according to the station at which he may happen to be quartered. His house (lines or barracks) and, if sick, hospital, as also clothes, are provided for him, and after 32 years' service he is pensioned.

Taking the Native army as it is at present constituted, I find that there are—

Under 13 years service	...	...	...	...	17,140 men.
Under 20 years', i.e., between 13 and 20 years	...	...	...	...	2,315 "
Between 20 and 32 years	...	...	...	...	4,041 "
Over 32 years	...	...	...	...	214 "

Although these figures are very satisfactory as showing that a very large proportion of the Native army is composed of men in the prime of life, they do not give so many men as I had expected from whom to select in order to form a reserve.

I must now proceed to note the difference that exists between a sepoy and a police constable, in order to show that, presuming it to be necessary to eliminate "the somewhat too civil element that prevails in the police," we can do so without any great additional expense, and at the same time form the nucleus of a reserve which at once will not only render the police more efficient, but will, eventually, and in the event of necessity, secure to the army a reserve from which it can draw, to complete its ranks should they be thinned by a prolonged campaign, or by any extraordinary number of casualties. The police constable commences with Rs. 7 a month (in the 4th class), and he rises gradually until, when after 12 or 13 years' service, he may attain the second class, he then gets Rs. 9 a month, and in the 1st class as a constable Rs. 10; after this he becomes a head constable, which rank also has four classes; and gradually rises according to merit until he may become a chief constable (4th class), but this would be beyond the ambition of any with whom we are at present dealing.

It would appear, therefore, for the purpose required that a sepoy at 13 years' service, and a police constable of the same standing, are not very far removed from an equality as regards pay and emoluments.

The sepoy has to serve 32 years and the policeman 30 years for his pension, which is also slightly in excess of the sepoy; but the policeman has to provide his own lodgings, is not so well cared for when sick, and has compensation for dearness of provisions only so long as he is in the lowest class at Rs. 7 a month. I would therefore suggest that from the sepoys now serving (2,315) who have been in the army between 13 and 20 years, a certain number (say 1,500) should be allowed to volunteer for the police, to be considered as a "military police," commencing in the 2nd class at Rs. 9 a month and allowed to rise according to merit or service, as may be the custom now prevailing in the police, but liable for 7 years (or until they have 20 years' service complete) to be called upon to rejoin the army, in such

*N.B.*—After the 20 years' service is completed, their liability to be recalled to serve in the army ceases, and they continue to serve in the police to complete their period of service for pension.

regiments, or in such places, as Government may decide. As an equivalent to the above number, deducted from the strength of the army, I further propose that the same number of police constables, medically and physically fit, shall be allowed to enrol in the regular army, serve till they have completed 13 years' service, when they, and every sepoy of good character and otherwise eligible—on completion of 13 years' service—shall be allowed to volunteer for the police, thereby improving the physical strength of the police, as well as infusing into that force discipline and military bearing, at the same time opening the field of recruiting to the army, which cannot at present compete with an undisciplined force, perhaps rather better paid, with fewer restrictions on the liberty of the individual, and in the country districts under less supervision by superior authority.

To recapitulate:—

- (1) I propose to form the nucleus of a reserve for the army in the police.
- (2) To commence by exchanging, say, 1,500 trained soldiers (sepoys) for the same, or, if practicable, for a greater number of police constables, medically and physically fit, to be trained as sepoys, who at the end of 13 years, or at 30 years of age, will rejoin the police, and continue to serve under the same conditions as are imposed on sepoys now joining the police.

(3) To allow every sepoy of good character on completion of 13 years' service, or 30 years of age, to volunteer for the police on the terms above stated.

The advantages to be derived from this scheme are doubtless, in the first instance, considerably in favor of the police, which will be made more efficient by a large number of trained men being drafted into its ranks, and a similar number of untrained men being eliminated from its ranks; but prospectively, I hope similar advantages to the army will accrue by the superior organization of the police, enabling this force to deal with all internal commotion without requiring aid from the army—by extending the now somewhat limited field for recruiting—and by giving the sepoy a relief at the end of 13 years from the monotony of his ordinary garrison life.

As the police number in all over 21,500 officers and men, the infusion of 1,500 soldiers would hardly be felt, until they have trained the other constables and infused a military spirit into their ranks.

H. J. WARRE, *Lieut.-General,*  
*Commander-in-Chief, Bombay Army.*

The 1st August 1879.

District Police.

GRADES.	Monthly pay.	PENSION.		CLOTHING ALLOWED.			Is lodging accom- modation provided?	Is grain compensa- tion allowed?	Are wound or injury pensions allowed?
		Years' service required.	Monthly rate.	In kind.		Compensation in lien.			
	Rs.			Articles.	No.				
Inspector, 1st Class ... ..	250	15	or	Provide themselves at their own expense.				Only to 4th class constables, when articles of common wardrobe of the district are sold below 10 seers (of 80 tolnes) to the rupee.	Special cases are treated on their own merits.
" 2nd " ... ..	200								
" 3rd " ... ..	175								
" 4th " ... ..	150								
" 5th " ... ..	125								
Chief Constable, 1st Class ... ..	100	25	or	Receive Rs. 6 per annum with which they provide clothing.					
" 2nd " ... ..	95								
" 3rd " ... ..	80								
" 4th " ... ..	65								
Head Constable, 1st Class ... ..	50	30	and not less than Rs. 6	Over-coat, every 7 years. Cloth coat ... .. Pantaloons ... .. Haversack ... .. Summer coat, annually Mounted men pay for their own horse trappings.					
" 2nd " ... ..	30								
" 3rd " ... ..	20								
" 4th " ... ..	15								
Constable, 1st Class ... ..	12	30	and not less than Rs. 6						
" 2nd " ... ..	10								
" 3rd " ... ..	8								
" 4th " ... ..	7								

Native Infantry.

GRADES.	Monthly pay.	PENSIONS.			Good-conduct pay.	Marching batta monthly.	Half mounting al- lowance annually.	CLOTHING ALLOWANCE.			Compensation when lodging is not provided.		Compensation for dearness of provi- sions at Poona rate (average).	Pension al- lowed for	
		Years' service required.	Monthly rate.	Rs. A.				In kind.		Compensation in lien.	Full.	Half.		Wounds.	Injuries.
								Articles.	No.						
Subadar-Major ... ..	100 plus 25 staff	15	30	15 0	15 0	...	Coat ... Trousers ...	12 0 0 9 8 0	...	...	...	...	...	...	...
Subadar, 1st grade ... ..	100	33	50	15 0	15 0	...	Coat ... Trousers ...	12 0 0 9 8 0	...	90 0 at a new station.	24	...	...	25	...
" 2nd " ... ..	60	15	15	7 8	7 8	...	Coat ... Trousers ...	9 8 0 6 8 0	...	...	12	...	...	12	...
Jamadar, 1st grade ... ..	40	33	25	7 8	7 8	...	Coat ... Trousers ...	9 8 0 6 8 0	...	...	...	...	...	...	...
" 2nd " ... ..	40	33	25	7 8	7 8	...	Coat ... Trousers ...	9 8 0 6 8 0	...	...	...	...	...	...	...
Havildar ... ..	14	15	7	5 0	5 0	...	Coat ... Trousers ...	3 8 0 3 4 0	...	15 0 at a new station.	4	...	...	...	...
Naique ... ..	12	33	13	5 0	5 0	...	Coat ... Trousers ...	3 4 0 3 4 0	...	...	3	...	...	...	...
Private and Drummer ... ..	7	15	4	1 8	4 0	...	Trousers ...	3 4 0	...	...	...	...	...	...	...

Minute in continuation of the Commander-in-Chief's (Bombay Army) reply to question No. 25, from the Army Organization Commission at Simla, on the subject of the European Garrison of India.

The matter presented for consideration in question No. 25—"In your opinion is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the home army?"—is one of so great importance, not only as affecting the garrisoning of India, but also as bearing upon the recruiting and organization of the whole British army, that I desire to add some observations to those which I have embodied in my reply to that question as submitted to me by the Commission at Simla.

The substitution, for Indian service, of a local British force in place of a portion of the home army, the alternative suggested by the question, might be attended by some reduction of expense, and might eventually secure to the Indian service a supply of mature and seasoned soldiers, physically better fitted for service than the lads who now fill the ranks (and the hospital!). But there are disadvantages attaching to the constitution of such a force which more than counterbalance these un- doubted advantages.

Sooner or later a local British force would inevitably fall below the high standard of excellence which it is necessary to maintain in all parts of the army of the Empire; and in no part of that army is high efficiency more essential than in that force to which, although small in numbers, is committed the charge of the momentous interests connected with our rule in India.

The alternative suggested in question 5 (c) addressed to departmental officers—"What is your opinion regarding the propriety and feasibility of continuing the present system, but with special enlistments for India?"—suggests an alternative, free from the objection above mentioned, though open to another, which I shall hereafter state, and which appears to make its adoption impossible.

If, as the question seems to suggest, all recruits were enlisted under the powers of the Army Enlistment Act, 1870, for twelve years, subject to the liability of being either retained with the colors for the whole of that period, or of being discharged into the reserve at the expiration of six years, or some shorter period at the option of the Secretary of State; and if the Secretary of State, in exercise of that option, were to require twelve years' continuous service with the colors from all men belonging to regiments actually serving in, or shortly about to proceed to, India, the difficulty now felt, arising from the extreme youth and physical unfitness of the men composing our Indian battalions, would be lessened if not entirely removed. And if the present system of periodically relieving regiments serving in India by regiments furnished from the Imperial army serving at home were adhered to, the unimpaired efficiency of the Indian force would be maintained, and the whole problem of garrisoning India satisfactorily solved.

It is not to be wondered at, therefore, that this alternative has been warmly advocated by several officers of high standing and experience to whom the question has been submitted by the Commission, and who, serving in India, regard the matter primarily from an Indian point of view.

But whilst this alternative offers so satisfactory a solution from the Indian stand-point, it does so at a sacrifice which renders it, in my opinion, impossible of adoption.

For by refusing to the recruit the option of enlisting for short service, it virtually surrenders an essential principle of the short service system, a system, which was deliberately adopted by the nation in 1870-71, and which has been for the past eight years and is now upon its trial.

It is no doubt true that many military men of ability and experience, whose opinions are entitled to consideration (as well as a section of the press, representing ignorant impatience of any experiment not crowned with immediate and complete success) are now urging that the eight years' trial, which has been given to the system of short service introduced by the Secretary of State in 1870-71, has proved it to be altogether unsuited to the requirements of the British army; and that the only way in which the question of the organization of our forces can be settled is to give up short service altogether and to revert to the system of long service which obtained before 1870.

But though I admit that the existing system of short service, owing to certain defects in the mode in which it has been applied, has hitherto proved less successful than its author anticipated, has indeed been in some respects so far a failure as to partially justify the cry which has been raised against it, I am not prepared to join in the cry for its abolition; on the contrary, I recognize the great economical and social advantages of a short service system in England, and I believe that not only does it possess these advantages as compared with the old system of long service, but that, though not susceptible of being universally applied, and not suited to Indian service, where the conditions require that soldiers should be engaged for comparatively long periods, it is peculiarly adapted to the requirements of a very large portion of the Imperial army of Great Britain.

For this reason, in discussing the question of garrisoning India, I limit myself to the consideration of proposals consistent with the maintenance of the short service system adopted by Parliament in 1870 so far as regards service at home.

From this point of view I propose to consider the feasibility of the plan suggested in question 5 (b), *viz.*, "that the European part of the garrison of India should consist of local battalions affiliated to the line battalions at home."

If by local battalions we are to understand battalions the whole of whose commissioned officers as well as the non-commissioned officers and rank and file are to be permanently quartered in India, the system of affiliated local battalions would be open, though in a less degree, to the objections which attach to a local European army.

The regimental officers, to whom an exclusively Indian career alone would be open, would be unable to keep themselves abreast of the time in military knowledge and idea; they would inevitably sink into a local groove of thought and habit, whereby the battalions under their command would gradually but surely deteriorate.

This influence could, however, be effectually guarded by making the Indian battalion, not only affiliated to, but equally with the home battalion, an integral part of the regiment, keeping up a regular interchange of officers between the two battalions.

Each officer of the regiment serving alternate periods at home and abroad would have the full advantage of an Indian experience, and he would also have the opportunity of keeping up his professional knowledge.

With this interchange of officers regularly kept up, the system of affiliated battalions could be introduced without danger of deterioration.

The system might, moreover, be introduced into the service with little disturbance of existing arrangements, and its adoption, far from dislocating our regimental system, of which we are so justly proud and tenacious, would restore that system from the state of dislocation to which, by the indiscriminate and unsystematic introduction of short service, it has been most regretably reduced.

The infantry of the line consists of 141 battalions, distributed amongst 110 regiments, of which some comprise two, some four, and some a single battalion, the single battalion regiments being linked in pairs.

By amalgamating each pair of linked regiments into one double battalion regiment, it would be possible, without much change or disturbance, to redistribute the infantry into, say, seventy regiments, consisting each of two battalions.

One of these two battalions would be the foreign battalion quartered permanently abroad, the other permanent quartered (during peace) at home.

If it were possible, and I see no reason why the question should not now be definitively settled, the third battalion of each brigade or regiment should be the corresponding country militia regiment, affiliated to and linked with its line battalion, for which the militia head-quarters staff would form a permanent depôt for the supply and training of all recruits, whether destined to serve for the remainder of their career in India, or for the shorter period in or about the islands of Great Britain.

This separation of battalions would render it possible to enlist men for each battalion upon distinct and different terms, each suitable for the home and foreign service for which they were respectively required, and enable us at once to break with the compromise of six years with the colors, and six years with the reserve, which suits neither.

Men would be engaged for home service for a short term of service with the colors, *viz.*, a time limited to the minimum required to convert the raw material "recruit" into the manufactured article "soldier," and a long term of service in reserve, *viz.*, a term extended to the maximum, during which he may be held in reserve, without losing the effect of his training.

For service abroad he might be enlisted for twelve years' continuous service with the colors, subject to a renewed engagement for such further term as the man might be physically fit for; *all soldiers so re-engaged to become entitled to a pension.*

If the permanent staff of the militia regiment cannot be made available, a depôt must be formed at the localized head-quarters of the regiment for the supply and training of the recruits of both battalions, the recruits of the battalion in India being retained at the depôts until they have attained the age of 21 years.

The cost of the depôt companies for Indian battalions, calculated according to the number of men maintained at each, upon a scale of cost per man ascertained by average, as well as the pensions payable to men who had completed upwards of twelve years' continuous service in India, would be a charge upon the Indian revenues.

The interchange of officers between the home and foreign battalions of each regiment should be regularly and systematically kept up; they should, as a rule, serve equal periods at home and abroad alternately; and although exchanges between officers for their mutual convenience might be permitted, the privilege of private exchange would require to be zealously watched, and an inflexible rule observed as to the time beyond which no officer should be allowed to serve continuously in India, in order to counteract the tendency for the officers of the regiment to gravitate into an Indian set and a home set.

Thus safeguarded, this system of local battalions affiliated to home battalions, this scheme appears to offer the most satisfactory solution of the very difficult problem of finding an army for home service and an army for India, interchangeable the one with the other, thereby offering a chance for men of long service to exchange or be transferred into the home battalion, and by their experience and service restoring to the ranks of the army of England that admirable class of non-commissioned officer which has gradually been dying out, but which was formerly the bone and sinew of the ranks.

It can be introduced without interfering with the application to the remainder of the British army of a complete and *bonâ fide* system of short service.

So far the subject has been considered primarily from an Indian point of view and as a question of Indian organization. It remains to be considered whether any, and what, advantages can be claimed for it over the existing system as affecting the organization of the home army; and, lastly (though by no means last in importance), as bearing upon the urgent burning question of recruiting for the army,—a question which affects equally England and India.

It has been shown that a system of local affiliated battalions possesses the negative advantage of not prejudicing the adoption of short service at home; it would, however, be more correct to claim for it that the separation of home and foreign battalions which it involves, for the first time, renders it possible that a real system of short service should receive what it has never yet received, *viz.*, a fair trial in the British service.

It will be necessary, in order to make this claim good, to say a few words upon the general principles of a short service system.

A short service system; as it is understood in continental armies, where enrolment is compulsory, and where no necessity for Colonial or Indian garrison service has interfered to prevent its adoption in its entirety, is a system under which the rank and file of every battalion or other similar unit is divided into two distinct classes—

- (1) Those retained with the colors during peace for the purpose of being trained for war.
- (2) Those who, having been so trained, are in reserve, or on furlough from their respective battalions.

These last are liable and ready to return to the ranks of their battalion as soon as it is mobilized for war; they form as essentially a part of the battalion as the men who are with the colors; they are, in fact, its real soldiers; the men with the colors are its recruits.

These reserve or furlough men constitute more than half the strength numerically, and in fighting strength far more than half of the battalion.

This intimate and close connection between the reserve men of each particular battalion and the men and officers actually serving with its colors is the very essence of the short service system.

If the above statement of the principles of the short service system be correct, it follows—

- (1) that it is a system which it is wholly impossible to apply to the garrison army of India;
- (2) that though we have, to some extent, provided a short service system, we have, so far from having given it a trial for eight years, never really tried it in our service at all, either in India or elsewhere.

When the soldier has been fully trained in the ranks and has been dismissed into the reserve, the pay which he receives is merely a retaining fee in consideration of his liability to be recalled to service; he must provide himself, like a civilian, by labor, with the means and necessaries of existence; but if he is to be available for service in his battalion at short notice, it follows that his civil employment must be found within a reasonable distance from the head-quarters of his battalion; this is, of course, impossible in India, where there is no demand for unskilled European labor.

A recruit should not be sent to India until he is a perfectly trained soldier.

Medical statistics show that the percentage of deaths of men under 22 years of age in India is much greater than that of men over that age. The more matured man may suffer, but his stronger constitution enables him to bear up against fever—the prevailing cause of sickness—and after a time entirely to conquer it. It is therefore evident that a considerable saving of expense must eventually accrue by retaining the lads now sent to fill the hospitals and die in India at home with the depôt for the first three years of their soldier's life.

Nearly every recruit enlists (or so states on enlistment) at 18 years of age. Three years of home training with regular drill and regular rations produces a different man, fit for any service, or any climate.

By the adoption of the proposed system the army of England would be increased by the addition of the Indian depôts attached to the militia head-quarters, or to the depôt which must be formed at the head-quarters of the brigade or regiment.

*N.B.*—This depôt need not be separated from the depôt of the battalion at home; on the contrary, the recruits of both battalions should be trained together and considered as one, the only difference being the term of enlistment; and by freely sanctioning transfer between both officers, non-commissioned officers and men of the two line battalions, I believe that many of the short service men (having got over the drudgery of drill) will freely volunteer for the longer service in India with the certainty of pensions, provided they serve the requisite number of years.

The short service system is in fact wholly unsuitable for India; it is also ruinously extravagant for two main reasons: first, because of the waste of costly life, due to sending out lads of weekly stamina and too young to stand the climate; secondly, because owing to the very short term remaining between the date of embarkation and the completion of the soldier's six years' engagement, as well as to the great length and expense of his passage between this country and India. The cost of the soldier's transport to and fro is out of all proportion great as compared with the service rendered abroad.

A short service system never has and never can be adopted in India. But, in fact, it has never been really tried either here or elsewhere in our service.

So soon as a man has completed his period of service in the ranks and is manufactured into a trained soldier, instead of maintaining, as it is maintained in continental armies, the all-essential close connection with his battalion, all connection with it forthwith ceases; the soldier is turned adrift into the inchoate mass called the army reserve.

Moreover, when a battalion is sent to take the field, whether in South Africa or elsewhere, it is raised from its peace to its war strength, not by filling up its ranks with trained soldiers called in from furlough or reserve, but by adding to its recruits other recruits taken from other regiments.

In short, the attempt to reconcile in one system the requirements of service abroad and at home has led to the adoption for the last eight years of a parody of a short service system which combines all the disadvantages both of long and short service without the advantages of either,—a parody from which it would be unwise and unfair to condemn short service.

There remains to be considered the effect which the separation of home and foreign battalions, with the separate terms of enlistment, hereby made possible for each, is likely to affect the pressing question of manning the army.

When Lord Cardwell shortened the period of service with the colors from twelve years to six years, he confidently expected that this alteration alone would have the effect of attracting to the army a greater number of men as well as men of a higher class than had previously offered themselves.

This anticipation has not been fulfilled. The experience of the past eight years has shown that recruits continue to be drawn, as of old, from the lowest stratum of society, and from the sweepings of large towns, whilst the supply of this inferior material is so limited that, provided they come up to a certain very low standard, we are unable to select or reject any. In order to keep up the strength of the army to the number voted by Parliament, it is necessary to admit recruits both younger and of lower physique, to say nothing of character, than is at all satisfactory.

The fact is that it is not, and was not, the length of engagement alone which deterred men from enlisting. A far more powerful deterrent is the uncertainty as to where they are to serve.

There were three particulars in which the alteration in the terms of engagement made in 1870 failed to attract recruits—

First, the period of service with the colors, when shortened, was not shortened enough.

Second, the soldier was given no choice between home and foreign service in his new career.

Third, the amount of pay during reserve service was not sufficient.

Potential recruits may be roughly divided into two classes—one class willing enough to soldier at home, but unwilling to serve in India, because they dislike the severance from home and family ties.

On the other hand, men of another class, having no objection to, rather a preference for, foreign service, desire a complete change from civilian to soldier's life.

The first of these two classes is probably far more numerous, as well as socially superior to the second; it is the class *which we must attract to the ranks if we are ever to have in our army a higher class of recruits than those which now enlist.*

But under our present system, whilst we do not heartily bid for recruits of the second class, we absolutely exclude from the field of our recruiting operations the more numerous and better class.

The proposed separation of regiments into home and foreign battalions, with distinct terms of engagement for each, would at once enable us to offer terms attractive to each of the two classes of possible recruits above described, and would immensely extend the field of recruiting.

The question of manning the army would be then half solved. Something, however, remains to be done, besides offering the intending recruit his choice between home and foreign service, if we desire that soldiering shall successfully compete in open market with other employment for unskilled labor, namely, to offer to the short service recruit a substantial increase in the pay to which he becomes entitled after having served his apprenticeship in the ranks *whilst serving in the reserve.*

In this part of the proposal there is nothing which need startle the most timid economist, as will be seen by the following calculations :—

Every soldier now serving in the ranks costs, with clothing, food, lodging, fuel, &c., about £65 a year.

If the pay of the reserve men were trebled, each would still cost less than £20 a year.

The number of men with the colors provided for in the home army estimates now before me for reference is 136,000.

The number of men in the first class army reserve is (about) 8,000.

	£
The cost of 136,000 men with the colors, calculated at the rate of £65 each per annum is	8,840,000
And of 8,000 men with the reserve at £6 each per annum is	48,000
<b>Total annual cost of 144,000 soldiers</b>	<b>8,888,000</b>

If the proposed system were in force and the strength of the home army were maintained at the same figure (144,000), we should have—

	£
The cost of 77,000 men with colors at £65 each	5,005,000
And of 77,000 men on furlough at £20 each	1,440,000
<b>Total annual cost of 144,000 soldiers</b>	<b>6,445,000</b>

showing a saving of £2,443,000 per annum.

Whilst, if the strength of the home army were raised to the respectable figure of 200,000 men, we should have (under the proposed system)—

	£
100,000 men with the colors, costing annually £65 each	6,500,000
100,000 men on furlough, costing annually £20 each	2,000,000
<b>making a total cost for 200,000 soldiers of</b>	<b>8,500,000</b>

or 200,000 soldiers maintained under the proposed system at a less cost by £388,000 annually than 144,000 under the present system.

The reserve being localized, the great majority of the men belonging to it would reside near the head-quarters of their regiment, and although it is not intended to call upon the reserves or to take the men from their civil employment, except under circumstances rendering their rejoining the ranks absolutely necessary, each reserve man would be at hand and would be equivalent to, if not something better than, his partially trained comrade in the ranks.

Thus a reduction in the number actually serving might be effected without in any degree diminishing the fighting strength of the army, although it might reduce the parade appearance of the battalions.

Apart from the direct saving which may be effected in this way, there would be an indirect saving in money, and money's worth, which it is almost as difficult to exaggerate as it is to estimate with accuracy.

If the pay of the reserve men were raised to a sum worth serving for,—and £20 a year so easily earned is worth something to an unskilled laborer,—then the military crime of desertion, the scandal, the weakness, and the evidence of the unsoundness of our army system would cease, military convict prisons might be shut up, and for the punishment of gaol and treadmill would be substituted dismissal from the service.

When dismissal from the service comes to be regarded as a punishment, the regeneration of the army is accomplished.

Although it may be assumed that I have approached this question primarily from the Indian points of view, the organization of the two armies is so intimately connected, it is not possible to treat the two questions otherwise than as one subject.

It must, however, be borne in mind, especially by the English tax-payer, that not only is the army of India paid for by the Indian Government, but that the expenses of the Government of India at home are entirely defrayed from the revenues of India. That in granting pensions after long service in India it is not proposed to ask the English Government to pay such pensions, which devolve as a matter of course on India, although it would only be fair for England to pay the pensions of such non-commissioned officers who elect for long service in India, but whose services may have been transferred to the home battalion, in order to restore to the ranks the old class of long service non-commissioned officers, without whose assistance training and discipline have so seriously deteriorated.

I shall conclude by recapitulating the several alterations necessarily following the adoption of the system advocated—a system which may be called one of regiments having two battalions (exclusive of the militia battalions), the one battalion being for home service, the other for furnishing the European garrison of India and its dependencies. These are—

- (1) That the several regiments of the army be divided into foreign and home battalions.
- (2) That of these the one be in time of peace permanently quartered at home, the other permanently abroad.
- (3) That recruiting for these battalions be kept separate.
- (4) That a depot for the foreign battalion be attached to the corresponding home battalion.
- (5) That recruits for the home battalion be engaged for ten years, of which the minimum time required to train him into a perfect soldier shall be with the colors; the remainder on furlough from the battalion, by which he would continue to be paid and to which he would continue to be attached.
- (6) That recruits for the foreign battalion be engaged for 12 years' continuous service, increased to 21 for pension.

- (7) That the pay of the men on furlough be not less than one shilling per diem, the pay of the recruit under training or period of apprenticeship being the same as at present.
- (8) That promotion to the higher grades of non-commissioned officer be on condition of re-engagement for continuous service with the colors.
- (9) That the pay and status of non-commissioned officers be considerably increased; that they be liable to transfer from battalion to battalion, and be entitled to a substantial pension on discharge.
- (10) That officers serve for alternate periods with the home and Indian battalions of their respective regiments.

BOMBAY; }  
The 20th October 1879. }

H. J. WARRE, *Lieut.-Genl.*,  
*Commander-in-Chief, Bombay Army.*

### Question of forming a reserve for the Native Army.

#### *Minute by His Excellency the Governor of Bombay.*

The tenor of the papers which have come before us, regarding military organization, renders it necessary to submit some opinion on the question of forming "a reserve" for the Native army in India. We have duly to observe the passage of the published instructions of the Government of India to the Commission on Army Organization, which runs thus: "The great problem of modern military organization is to provide the largest and most efficient force in war, with the smallest permanent peace establishment and expenditure."

By the technical term "reserve" we mean a system, as in England, whereby a man is enlisted for twelve years, of which years six are to be spent with the colors on full pay, and six at home on a small retaining allowance. This system is commonly called "short service." In this minute the term "short service" will be employed in the above sense.

In discussing the applicability of this system to the Native army in India, the first point relates to its practicability. Is the system practicable? That is, could desirable men be induced to accept it on such conditions as the Government might be able to offer? I believe that it is quite practicable on certain conditions; but that those conditions must in some respects be different from, and in other respects more liberal than, those in England. The matter then resolves itself into a question of conditions.

In England the retaining allowance which a man while at home on "reserve" receives is very small, namely, 4*d.* a day; and the time of service is very limited.

I do not think that Natives would generally care for, or anyhow accept, service, if the time is to be very limited, and the reserve allowance very small. In some civilized countries military service is regarded as a burden to be patriotically borne by citizens as private soldiers; but in India it has always been regarded, even for privates, as a valuable profession, and as a provision either for life, or for a long time. In many countries the private soldier looks to serving for a brief period without any thought of pension. In India the private soldier looks to retiring either on a good pension after lengthened service, or on a lesser pension after lesser service; but in any case on some pension of considerable worth to him, that is, enough to contribute towards his maintenance. Therefore, I apprehend that the Natives will not care for service on "reserve," except on conditions somewhat analogous to the existing condition of service. By Natives I mean men of eligible character and physique, such as we have always had in our army hitherto.

A Native of the Native infantry (sepoys) is enlisted permanently, subject to good conduct and physical fitness. He receives on the average eight or nine rupees a month (according to length of service with good conduct) with prospect of pension of four rupees a month after fifteen years' service if invalided, and seven rupees a month after thirty-two years' service without invaliding. He finds his own ration, but receives an additional allowance whenever the market prices of food-grains exceed certain rates, it being thus ensured that the pay and allowances shall be such as to support him and his family. He receives some assistance from Government in erecting his own hut. He is allowed furlough occasionally to visit his home. He will not be discharged except for his own fault. He will not be invalided save on medical authority, and then he will receive a pension. If in case of necessity the Government has disbanded regiments, it has settled some adequate provision for the men. Thus the sepoy has, heretofore, regarded military service under the British Government as a thing not to be thrown off but to be clung to. These are the bonds which have subsisted between the Native soldiers and their European masters. These are the reasons why service under the British Government is more popular with the Natives of India than service under their own indigenous States.

To the above rules there are some exceptions. For instance, on the north-western frontier of India, there are, I understand, some classes of sepoy who decidedly prefer short service. And in the Bombay army there is an inclination showing itself with many sepoy,—a greater inclination than was perhaps expected by many experienced authorities,—to obtain a lesser pension after a shorter service rather than to wait for a better pension after longer service.

The pension of four rupees a month after fifteen years' service on invaliding has been instituted in recent years only. It is evidently regarded by the men as a great boon. They are evincing anxiety to obtain it, and they will probably avail themselves of it in future to the fullest extent that the authorities, medical or other, may allow.

From this we may certainly infer that if the Government were to offer to enlist men permanently on the condition of their receiving full pay, eight to nine rupees a month for a certain time, say fifteen years, while with the colors, and half pay, say four rupees a month, while at home on reserve, the time on reserve to count for a pension of the same amount after 32 years, then such offer would be largely accepted, quite as largely as could be desired.



But such conditions would probably be regarded as too liberal, more liberal indeed than Government could afford. It is therefore necessary to consider how the conditions could be lessened in favor of Government.

It is impossible to say for certain without actual trial what conditions would be acceptable to the Natives—those Natives, I mean, who would be desirable as sepoy. But after confidential consultation and enquiry, I incline to think that, if three rupees were offered instead of four, the other conditions remaining as above, the offer would be largely accepted. Or, if three rupees were thought too much, then possibly two rupees a month might attract men, if the time of the preliminary service with the colors were reduced from fifteen years to ten. In other words, men would be invited to serve on full pay for fifteen years, then to go home "on reserve" on three rupees a month, with liability to be called out, up to thirty-two years' service, and thereafter to receive the three rupees a month as pension without that liability; or to serve for ten years and then to go home "on reserve" on two rupees a month, till thirty-two years' service, when the two rupees monthly would be drawn as pension.

It is to be remembered that a sepoy has almost always some occupation on which to fall back, which occupation is generally connected with agriculture, so he would regard his "reserve" allowance as eking out his income.

In favor of the above conditions it is to be observed that the four pence a day allowed in England is equal to about ten shillings, or five rupees a month. Thus by English analogy, two or three rupees a month ought to be allowed in India.

Perhaps such conditions might still be regarded by Government as too onerous to the State; but I fear that any less favorable conditions would fail to attract desirable men. The salient point is that of the pension, but experience has invariably shown hitherto that, without pension, desirable men cannot be obtained in any large numbers. It were fruitless to discuss what inferior conditions would suffice to attract undesirable men, because such men would never be approved by Government.

It is to be borne in mind that the military service of Government, though still valued, is not so highly prized as it formerly was, because the pay and allowances, much improved as they have been of late, do not bear the same proportion to the cost of living as the old pay and allowance bore, and because there are many more competing employments now than formerly, such as the improved service of the police, the service of the railway companies, and many kinds of private service.

If such offers as those above described were largely accepted by recruits in the future, then a considerable body of men, numbering many thousands, would be absent from the colors, and would yet be drawing two or three rupees a month each; the aggregate of such charges would be considerable, and would be open to financial objection. If, say, the total number of such were twenty-four thousand (a figure which is given by way of illustration, and which will agree with figures I shall have to give presently), then the monthly charge would be Rs. 48,000, or Rs. 72,000 (according as the allowance were two or three rupees); that is, Rs. 5,76,000 (£57,600), or Rs. 8,64,000 a year (£86,400). The fact would be remarked that here is a body of men drawing these allowances, not temporarily but permanently for life—men who, though trained as soldiers and liable to be called out, are yet not at the moment rendering any service.

The only answer to such financial objection would be this, that these men, though not quite as good as soldiers with the colors, are yet soldiers, having received their training and are ready to join their colors at the shortest notice, and in this sense may be regarded as a part of the fighting strength of the Government. If then the Government must maintain a certain total of fighting strength, of which strength these "reserves" form a part, it is manifestly cheaper to keep these "reserve" men on two or three rupees a month, instead of the eight or nine rupees a month which they would be receiving if they were with their colors. The financial economy of the measure is represented by the difference between two or three rupees on the one hand, and eight or nine rupees on the other hand, multiplied in each case by twenty-four thousand.

I present the above reply as a financial rejoinder to a financial argument; whether such reserves should be reckoned as real fighting strength, is a question on which military authorities may perhaps feel doubt, as sepoy, when away from their usual exercises, are apt to become slack, and are not restored to complete efficiency so quickly as Europeans.

On the other hand, financially, it is manifest that, if a reserve should be wanted in addition to the established strength with the colors, it can be managed at a small cost, for the £86,400 shown *plus* contingencies, bringing the total up to, say, £100,000, would give a reserve strength of 24,000 men, the charge being slight as compared with the accession of power.

It will, of course, be asked why not try in India a system of "short service" as in England; or, if not exactly that, still a system of limited service without pension, enlisting, say, sepoy for fourteen years, of which years seven might be spent with the colors on full pay and seven at home on half pay.

To such a question, I should reply, first, that, if the foregoing considerations should prove correct, the offer would not be accepted by men of the desirable classes; and, secondly, that there would be a grave political objection.

This particular objection may be explained in this wise. The effect of forming "reserves" for either "short service" or limited service is to pass a number of the civil population through the military ranks; the shorter the service the larger the number passed through. In many civilized countries, especially in a country like England, this is justly considered a collateral advantage of the reserve system. But in India the case is quite opposite, because there an alien race governs subject races under a benevolent despotism. In India, under British rule, the former martial tendencies of the Native population gradually become lessened till they almost disappear, and this circumstance is considered to be one of the safeguards of our rule. So conscious has the Government been of this, that within the present generation the Native population has been generally "disarmed," that is, the people have been enjoined to give up their arms. The Government has never passed its Indian subjects through the ranks, nor sent them to their homes in the vigour of life. On the contrary, it has heretofore never parted with its Native soldiers till they were pensioned in the evening of life. And even now-a-days, when it is beginning to part with them in middle life, still it does so only on invaliding them. Therefore, to train them, to keep them for a limited time, either with the colors or

on reserve, and then to altogether discharge them without pension to their homes in numbers increasingly large, that is, numbers increasing as each set of men should in succession be passed through the ranks, would be to ensure a constant influx into the civil population of military men no longer bound to Government, and to infuse again into the people a part of that martial spirit which has been disappearing, and the disappearance of which is still advantageous to us. This would be different from the past policy of Government, which is still as sound now as it ever was, and would militate against those maxims of political safety which are likely to continue as imperative in the future as they have been in the past and are in the present. In short, to have in the interior of the country some considerable number of men trained to arms, but no longer in the British service, would be to produce one of those very dangers which the Government have hitherto avoided, and will doubtless be still anxious to avoid.

It is to be observed, however, that the plan above suggested by me is free from this political objection, because by it the "reserve" men would never be altogether discharged, but would be receiving their regular allowances with the prospect of pension, and so would remain bound to us.

Even then it might be argued that "reserve" sepoys, though still bound to us, would, while at home, be out of our sight and control, and might be exposed to temptation from political plotters. This objection is, however, reduced to a minimum by the plan of allowance and pension.

There is yet another way in which a "reserve" might be formed in India, which is this: a certain number of sepoys might be enlisted on the condition that, after being trained as soldiers, they should serve in the police, or as messengers and attendants in the various civil departments (such messengers and attendants being styled variously "peons," "chuprasses," "puttawallas," &c., &c.) on full military pay, with prospect of pension, and with a liability to rejoin the ranks whenever wanted. This plan would be free from the financial and political objections above set forth. Such reserve men would, *pro tempore*, form part of the establishment of the police and the civil departments, that is, the police and civil departments would have their fixed numbers, from which numbers would be deducted those "reserve" sepoys who might be at the time employed in civil capacities; if the said sepoys were withdrawn for military service in war, then the police or civil departments would entertain substitutes to make up the complement of their establishment; such "reserve" sepoys would thus, while on "reserve," be doing full work for their pay, though in civil capacities; and would be causing no extra charge whatever, and might yet be counted as part of the fighting strength of the Government. So far then this plan would be free from the financial and political objections just indicated.

It is to be added, too, that the pay of the sepoys, and that of policemen and messengers, is about the same, so that there would be but little or no adjustment of accounts required between the civil and military branches of the service.

There would, of course, be some occasional inconvenience to the police and to the civil departments from having this part of their establishment thus withdrawn for war; and some permanently recurring inconvenience from having this part of their establishment, from time to time, called before military authority for inspection. Moreover, the vigour of the police would be impaired, to the extent to which these trained men were withdrawn for war, at a time when the police duties were especially urgent. But these drawbacks and inconveniences would have to be endured, for the sake of an important object, if they were limited in their extent. It is to be observed, too, that "reserve" sepoys would during peace impart to the police a soldierly element which is always needed, and would be excellently suited to the ward and guard duties which pertain to the police.

Inasmuch as the establishment of the police in British India, including regular and municipal police, but excluding all village police, stands at 155,000 officers and men (*vide* account of "Moral and Material Progress of India" for 1876-77, presented to Parliament); inasmuch also as the civil establishments mentioned include some thousands more of men, I should think that at least 10,000 sepoys on reserve might be employed among these police and civil establishments in all India in the manner above indicated.

If then the formation of a "reserve" for the Native army, not of a temporary character, but with the permanency and on the conditions above described, were to be undertaken, what should its proportions be?

The Native infantry of British India, including sappers, has an established strength of 104,000 non-commissioned officers and privates (*vide* page 99, East India Account for 1878-79, presented to Parliament). All these are now serving with the colors, and none are at home "on reserve."

Now the formation of a "reserve" would, in the ordinary sense of the term, be understood as supplying a resource, in addition to the above established strength, as in England. Indeed, in consideration of the vast population and extensive countries with which the Native infantry is concerned, and in view of the contingencies and exigencies of war, there might be strong reasons why a reserve should be formed in India also in addition to the established strength above set forth. But *per contra* there are financial exigencies, and I believe that the Government cannot afford the expense of a reserve in this manner. I rather apprehend that Government will have as much as it can do to maintain the established strength as now existing.

But I suppose (subject to correction) that what is being, or will be, suggested to Government is to subtract the reserve men from the men now serving with the colors, or to include such reserves in the existing total of established strength, and so to count them as part of the fighting strength, that is, if (hypothetically) the "reserve" were fixed at 24,000 non-commissioned officers and privates, then of the total 104,000 there would be 24,000 on "reserve," either at home or else employed temporarily in the police or the civil establishments, and 80,000 with the colors. Out of the 24,000 men on reserve, there would be 10,000 temporarily in the police and the civil establishments and 14,000 at home.

The question then is what would be the saving financially? Take the average pay of a sepoy at Rs. 8 a month or Rs. 96 a year, to which something should be added for contingencies, including compensation for dearness of grain, making up the total to about Rs. 120;\* take the cost of a reserve

\* The actual cost of a sepoy is a point on which there will be some difference of opinion. I have assumed the amount approximately.

sepoys at Rs. 3 a month or Rs. 36 a year with contingencies, bringing the amount up to Rs. 40, then the whole annual pay of 10,000 sepoy on "reserve" with police and civil establishments, or  $10,000 \times 120 = 12,00,000$  would be saved to the military budget, and would be a real saving to the State, as it has been already explained that the pay of the sepoy and that of the policeman and the messenger is about the same. Then, too, 14,000 reserve sepoy at home would be receiving Rs. 40 a year each, or Rs. 5,60,000 in all, instead of Rs. 120 each, or Rs. 16,80,000 in all, which would be their pay with the colors. So the difference between Rs. 5,60,000 and Rs. 16,80,000, namely, Rs. 11,20,000, would be a saving to the military budget and a real saving to the State. The total saving then would be Rs.  $12,00,000 + 11,20,000 = 23,20,000$ , or £232,000 per annum. If Native non-commissioned officers were placed on the "reserve," there would be some additional economy. The saving is only estimated approximately. It would hardly, I think, be less than the above; it might be more, in which case it would mount up at least to £250,000, or one quarter of a million sterling. It is to be remembered, however, that this amount, though considerable, is small relatively to the aggregate of the military charges of India.

If, however, it were held that reserve sepoy could not be placed temporarily in civil employ to the number of 10,000, that is, if the police and the civil departments could not manage to take so many, then the above saving would be proportionately diminished. If none could be thus employed, for instance, then all the 24,000 men would be at home on reserve.

The difference between their pay at Rs. 40 each a year, or Rs. 9,60,000, and their cost at Rs. 120 with the colors, or Rs. 28,80,000, would be Rs. 19,20,000 per annum, or more than 19 lakhs of rupees, or £192,000 saving annually.

If, again, the "reserve" rate of allowance at home were two rupees a month, the cost would be Rs. 24 per head, plus Rs. 4 for contingencies, or Rs. 28, which would give Rs. 6,72,000 for the whole, which, as compared with the Rs. 28,80,000, would show a saving of Rs. 22,08,000, or 22 lakhs of rupees.

There would be many circumstances affecting the financial result in detail for better or for worse, and I only give the above figures to afford a notion of what the financial value of such a measure would be.

At the best, however, the financial result, namely, a saving of one quarter of a million sterling annually, or thereabouts, in the annual charges for the Native infantry in India, is not great relatively to the total present military expenditure of India (16½ millions sterling) annually. While in order to produce even this much financially, a reduction of Native infantry strength with the colors from 104,000 to 80,000 non-commissioned officers and men would have to be undertaken, or a diminution of one-fifth. It is manifest that such a reduction would be serious from a military point of view, and would be regarded by military authorities as a grave disadvantage. One question would then arise for consideration, namely, whether the military disadvantages must not be held to outweigh the financial advantage, or whether the particular advantage to be gained financially is such as to justify the military disadvantages being endured.

This question would, however, be superseded by another question, namely this, whether so large a number as 24,000, or anything like that number, could possibly be spared from the colors, or whether any sepoy can properly be spared from their colors in any part of India. As regards the Bombay presidency and the Bombay army, our last official despatch has shown that we cannot spare any sepoy from the colors, as the territories to be guarded are so extensive with so many elements of possible trouble, as we have but 21,360 Native infantry, and our battalions are only thirty in number, and as the established strength of a battalion is already at a minimum (being 600 sepoy, or 712 officers and men), as our sepoy are reported to be overworked, and as being often employed on night duties to an extent not contemplated by the regulations, notwithstanding all the efforts made to reduce their routine work to a minimum. We may fear that the circumstances of other parts of India will be found similar, but on this we need not offer any opinion.

If the battalions were still strong numerically, say with 900 sepoy as was once the case, then there would have been some scope for forming a reserve as a means of reducing expenditure; for instance, 300 might have been kept at their homes on reserve, 600 remaining with the colors. But in 1861 and 1862 the strength was reduced to a minimum, namely 600, and military authorities will not consider it properly possible to have fewer sepoy with the colors, inasmuch as even now a battalion, after allowing for men on furlough, in hospital and on indispensable routine work, would hardly turn out 500 sepoy for duty. If, again, there were spare battalions, there might be some scope for a reserve as a means of reducing expenditure; but within the last twenty years the number of battalions has been reduced by one-fourth or more, till at last they are only enough to hold the military stations in the country, and to allow a slender margin for war. The number of military stations, too, has been diminished, at least in Western India, within recent times, and, as a rule, only those stations are retained which must be held for political or strategic reasons. If here or there some small station might be reduced, still that would not affect the total force, which must be kept up in any given province for garrison purposes and the maintenance of internal order.

Next, as regards cavalry, I know not whether the principles of "reserve" and "short service" will be applied to the cavalry in England; but in India, if they were applied to the Native infantry, I presume they would be applied to the Native cavalry also, inasmuch as there is one difference between a cavalry recruit in England and in India, namely this, that in England the recruit usually joins without previous practice in horsemanship, whereas in India he generally, though not always, joins as a horseman already.

Now, the general principles, as above explained, regarding Native infantry are valid or invalid (according as opinions vary) regarding Native cavalry, with certain modifications or additions which I will specify.

By the old system, the regular Native cavalry had their horses, their arms, and equipments found for them by Government; while the irregular cavalry received a consolidated pay from Government, out of which they found their own horses, arms, and equipment. Had the regular system been universal with the Native cavalry, and had it lasted, then the principles of "reserve," as applied to the infantry, would have been more completely applicable to the cavalry than they now are. But of late years the

regular system has been abolished, and the irregular system rendered universal with the Native cavalry in all parts of India, except, as I understand, Madras.

There are now 18,000 non-commissioned officers and men in the Native cavalry of British India (*vide* East India Accounts for 1878-79, presented to Parliament). Suppose that a portion, say one-fifth of these men, or about 3,500, were placed on "reserve," a question would immediately arise as to the disposal of the horses. The animals might perhaps be disposed of on the spot, some adjustment being made with the funds existing in each cavalry regiment for the purchase of horses and remounts. Or, the men going home on "reserve" might take their horses with them. But if a man goes home with his horse on reduced pay, can he afford to keep the animal as well as himself? Take his pay and allowances at thirty-two rupees a month with the colors (including compensation for dearness of grain and forage) and at sixteen rupees when at home on reserve, could he at home keep himself and his horse in proper state, and fit for service? This is doubtful. But if he could not be depended upon for this, then, on being placed on "reserve," his horse might be disposed of, and he would receive, while at home, the dismounted or infantry rate of allowance; and if he were called out for service in war, the Government would find a horse for him. To that extent then (say one-fifth of the whole) the irregular system would be infringed.

I should add that, in cases where a man (generally a Native officer) owns several horses and finds troopers to mount them, he drawing the consolidated pay for the whole, he might be able to maintain the men and horses at home on the "reserve" allowances.

The saving in time of peace would be at the rate of sixteen rupees a horse on 3,500 men, or Rs. 56,000 a month, or Rs. 6,72,000 a year, or £67,200.

Possibly the above saving might be increased if some of the troopers on reserve were to be employed in the mounted branch of the police, a corresponding number of mounted policemen being discharged. But then these mounted policemen being on the same system as irregular cavalry, there would be a difficulty in disposing of them, and the police could not easily afford to have their mounted men withdrawn in event of war, as such men could not be immediately replaced.

Whether 3,500 troopers could be spared from the colors is a serious question from a military point of view. As already shewn officially, we cannot properly spare any in the Bombay presidency, as there are but 3,400 (*vide* East India Accounts) non-commissioned officers and privates in the Bombay cavalry for such extensive territories. Whether the circumstances are similar in other parts of India is a question on which we need not offer an opinion.

The total saving of cost annually by forming a reserve in the manner above indicated would be—

	£	
On the Infantry, about	250,000	
„ Cavalry	67,000	
	317,000	

or something less than one-third of a million sterling, on a withdrawal of 24,000 infantry and 3,500 cavalry, in all 27,500 men, from their colors. And these considerations have been set forth, relative to the question, whether the financial saving is commensurate with the military sacrifice.

In brief, the conclusions are—

- 1st, that a system of "reserve" for the Native army in India could not be formed exactly after the English model, because it would probably not prove attractive, and might be open to political objection;
- 2nd, that however as a matter of practicability, as distinct from military expediency or safety, a system of "reserve" could be so arranged as to suit the political and social circumstances of India, and to prove attractive;
- 3rd, that such a system is not likely to be adopted in India, as an additional military resource, as in England, but might be contemplated in India as a means of reducing military expenditure;
- 4th, that as a means of financial reduction it would produce a saving, considerable indeed by itself, but not great relatively to the total army charges;
- 5th, that such saving could, however, be obtained only by withdrawing a large proportion of men from the colors at a time when the Native army is not numerically strong in comparison with its work and its duties; a question thence arising as to whether the financial advantages are sufficient to justify the military disadvantages.
- 6th, that such withdrawal of men from the colors is not safely possible in Western India, the question as to whether it is possible in other parts of India being beyond our cognizance;
- 7th, that while the formation of a reserve is quite practicable, yet, if it be wanted as an addition to the established strength with the colors, there is doubt whether it can be afforded from a financial point of view; and if it be wanted as a means of diminishing the strength with the colors, there is doubt whether it can be afforded from a military point of view.

BOMBAY, }  
The 15th August 1879. }

RICHARD TEMPLE.

#### Remarks on matters referred to the Commission on Army Organization.

##### *Minute by His Excellency the Governor of Bombay.*

It may be desirable to state an opinion on some of the several points in the printed instructions of the Government of India to the Commission on Army Organization.

Points 1 and 2 relate to the number of troops, British and Native, to be maintained in India in peace time for internal order and garrison duty only, and to their distribution among the several provinces.

On these points I have, by my minute of the 31st July 1879, given full answers as respects the Bombay presidency and the Bombay army; and further answers do not seem to be required from me regarding other parts of India.

*Point 3 runs thus:* "What should be the full war establishment of the Indian army calculated under the two heads of—

"(a) the number of troops that India ought to be able to place and maintain in the field for service whenever required;

"(b) the garrisons and reserves to be maintained in India?"

Regarding (b), I need not offer any further answer.

Regarding (a), as the war just concluded successfully in Afghanistan affords the most recent experience, it may be well here to look at the number of regiments engaged with the three columns operating at and near Kandahar, in the Kuram Valley, and with the Peshawar Field Force.

The Bengal Army List corrected up to 31st December 1878 gives the following number of regiments as composing the entire force, irrespective of the Bombay reserve brigade, which will be noticed separately:—

*Sappers and Miners.*

9 Companies, subsequently increased to 14 companies—*vide* Bengal Army List, 31st March 1879.

*Royal Artillery.*

Afterwards reduced to 19 batteries—*vide* Bengal Army List, 31st March 1879. 24 Batteries.

*Cavalry.*

3 Regiments (European).

12 " (Native).

*Infantry.*

Increased to 12 regiments—*vide* Bengal Army List, 31st March 1879. 10 Regiments (European),

29 " (Native),

and two Native Levies.

Of the above force, the Bombay army supplied 2 batteries artillery, 1 regiment Native cavalry, and 2 regiments Native infantry; Madras supplied 3 companies of sappers and miners and 2 regiments of Native infantry at Vitakri, which are included in the above 29 battalions of Native infantry.

The Bombay reserve brigade consisted of 2 companies sappers and miners, 1 regiment Native cavalry, and 2 regiments of Native infantry.

As Madras was indented upon for 3 regiments of Native infantry to garrison Fort William, Alipore, and Dorunda, it is presumed that the Bengal army could spare no more troops for field service, having already supplied, besides the greater part of the fighting strength, reserves at Peshawar, Mooltan, and Quetta.

In my minute of the 31st July 1879 it is shown that Bombay has a slender margin of 1 regiment of cavalry and 7 regiments of Native infantry, which this presidency could use for external purposes; and assuming that the Madras army could spare about as many, we are forced to the conclusion that the following troops were alone available for service to reinforce the forces already engaged:—

*Bengal*—None.

*Madras*—1 regiment cavalry (or perhaps 2 regiments) and 2 (or perhaps 3) regiments of Native infantry.

*Bombay*—5 regiments Native infantry (two of which were with the reserve brigade).

From the above it will be seen that if we are engaged in another war, such as the one just concluded, and presuming that doubtless the force lately engaged was not greater than the exigencies of the service required, and, further, taking into consideration our present extended frontier and the necessity for strong garrison, then the troops India should be able to place and maintain in the field should amount, at least, to the force employed in the recent Afghan War.

For the safety of the Indian Empire, I would rather say that India should always be able, at very short notice, to place in the field one army-corps of strength according to English system of 33,000 officers and men of all arms as the first line; also to have another army-corps (33,000) in readiness to support the first army-corps, or to fill up the gaps caused in it by casualties of service; in all 66,000 men. And besides this force, there should be in India troops sufficient for garrison purposes and maintenance of internal order.

*Points 4 and 5 run thus:—*

(4) "By what means short of permanently maintaining the army on a war footing can the difference between one and three be most efficiently provided for?"

(5) "Having regard to one, three, and four, what number of troops must be kept permanently under arms to garrison the country in peace time and furnish the required cadres for war; and what organization will best combine the necessary elasticity with efficiency in peace and war?"

These points seem to indicate the formation of a reserve for the Native army in India; on that question I have written a separate minute.

*Point 6 runs thus:—*

"Assuming that the British force now in the country is not to be reduced, can the cost of its maintenance be diminished by alteration in its organization, or in the system by which it is recruited and relieved?"

That branch of the British force in India in which, perhaps, some reduction of cost might be effected in its maintenance is the infantry, as I understand that the organization of the artillery and cavalry cannot be properly disturbed.

The established strength of a regiment of infantry (European) stands at 23 combatant officers, 84 combatant non-commissioned officers, 16 drummers and 780 privates, which gives 3 officers and 110 non-commissioned officers, rank and file, per company. It has been suggested that the number of privates might be materially increased without a corresponding increase of officers being necessary.

The present number of infantry regiments serving in India is 52, *i.e.*, Bengal 35, Madras 9, Bombay 8. Railway communication, good roads, and the development of telegraphic correspondence renders the increased concentration of our European forces in India more feasible than it formerly used to be, and if the Government is prepared to carry this out, a considerable saving might accrue to Imperial funds.

If the number of British battalions in India were reduced from 52 to (say) 40, it might be carried out in the following manner without any reduction of fighting strength in *men*.—

Companies are composed at present of 110 non-commissioned officers rank and file; if the companies were increased to 140 non-commissioned officers rank and file, or by an addition of 30 men to each company, the cost of the officers and staff of 12 battalions might be saved to the Indian revenue. This suggestion is made on the supposition that the Home Government can arrange to dispose of the officers thus spared from India, on which matter we are necessarily uninformed.

The addition of 30 men per company, or 300 men per regiment, would of course entail more work on the commanding and company officers. The military authorities would be able to judge whether this is practicable. But if it were found practicable, then a regiment would be able to turn out at least 1,000 strong. The saving to the Indian revenues would possibly be, on a rough estimate, about 13 lakhs of rupees a year.

As regards recruiting and relief, a great saving to Government would be made by retaining, in India, all men who are physically fit with the colors for 12 years, and by including healthy strong men of a certain age, and under 12 years' service, to volunteer for service in India on their regiments being relieved, provided there are vacancies in the battalions remaining in India; also by requiring all soldiers embarking for India with their regiments to complete 12 years' service, *i.e.*, if a man had served 4 years at home, on embarking for India he would have to serve 8 years in India to complete his 12 years' service.

All this might be considered if the question of "short service" shall be brought under discussion. It is to be inferred that the time of service in India is capable of extension, because up to a very recent time a term of 12 years was usual for service in India, and before the war of the mutinies the term was much longer.

To render the completion of 12 years' service for regiments ordered to India compulsorily would not very seriously affect the army reserves, for the formation of which the short service system was introduced; for only 52 battalions out of 131 are serving in India. And the men serving in India having completed their 12 years would also pass into the reserves.

Another strong reason for advocating 12 years at least as the term of service in India is that it will ensure a better and older set of non-commissioned officers for the supervision of men subject to many temptations in a trying climate. This is a subject which we know is causing much anxiety to the military authorities in India.

Many means of reducing cost in the administration of the European army in India could doubtless be found, notably in the system of canteens; and if necessary a scheme for the better administration of the latter can be elaborated which would effect a considerable saving to Government.

*Point 7.*—"What should be the territorial organization and divisions of commands and the proportions of superior officers and staff?"

The present territorial organization and divisions of command, by which I mean organization and command of the armies of Bengal, Madras, and Bombay, have now been working satisfactorily for a century, and I am not aware of any reason why the great divisions of command should now be altered. My views on this point will be further explained in the reply to point 9.

The presidencies of Madras and Bombay have each a compact army amounting in strength to about an army-corps. This organization need not, I think, be disturbed. The Bengal army has much larger proportions; it will doubtless remain under one Commander-in-Chief; whether within it there should be any re-distribution of commands is a subject on which I need not offer any opinion.

*Point 8.*—"What units of organization for field service seem best suited to the usual conditions of Indian warfare, and can these be adapted to, or connected with, the territorial organization as in Europe?"

The unit of organization for service in the field is a technical military question on which I need not offer any opinion. But whether any such unit can be connected with, or adapted to, any territorial organization as in Europe, is partly a political question on which some brief remarks may be offered. The question must be answered decidedly in the negative. The question amounts to this—Can certain regiments, certain brigades, certain divisions, be recruited in certain localities, and be connected with those localities? Certainly armies, or army-corps, can be connected with territorial organization, as the Bombay army is recruited in Western India, the Madras army in Southern India, and so on. But beyond that it is impossible to connect particular portions of those armies with particular localities. Troops have often to be maintained in places which never furnish recruits. Again, recruits are largely forthcoming in places where troops are never kept, such as the Concan in Western India. Extensive provinces, such as Bengal, never furnish recruits at all. In some provinces, such as Oudh, where recruits would be largely obtainable, it would perhaps not be thought desirable to obtain them largely.

*Point 9.*—"Is it desirable to maintain the presidential armies distinct as at present; and are large staffs and separate departments now maintained essential to the efficiency of the army administration under the present presidential system?"

It has always been maintained that for high political reasons, and for the prevention of dangerous combinations, it is necessary to keep the armies of India distinct in race and creed; and I am not aware that of late years any sufficient reason has been brought forward to weaken this conviction.

The men of any particular country make the best protectors for their own homes. They have more interest in serving in the country of their birth during times of peace, though ready to go anywhere in times of war. Recruiting for any great division of a country like India must of necessity go on within that division, and it would be objectionable, even if it were practicable, to recruit the armies of Madras or Bombay with Sikhs, Pathans, or men of Oudh; or to offer inducements for

Deccanees, Concanes, Mahrattas, or Madrasses to volunteer for the army of Bengal. These reasons of themselves tend to keep the armies distinct. The fact of serving under a particular Government, as the armies at present do, adds to this feeling and encourages emulation.

To do away with the distinct character of the three armies of India would be at once to encourage that excessive degree of centralization which is apt to be so dangerous in a country like India. In that case the command of the three armies, and of guarding, as they do, a vast extent of territory, would be placed in the hands of one Commander-in-Chief. This would entail upon him more work in the way of inspection than he could properly perform, and more general business than he could manage with efficiency.

All this would, moreover, at once have the effect of concentrating the administrative departments of the army (the commissariat, the ordnance, and the like) in one place, leaving deputies only with the Local Governments. These deputies would be responsible to the respective heads of their departments at the head-quarters of India, instead of as at present allowing each presidential army to have its local head of each department. Any such concentration would, in my opinion, be without advantage as regards economy and very disadvantageous as regards efficiency. For instance, what advantage could there be from one Commissary General at Calcutta directing the commissariat affairs of Bombay and Madras? What but inefficiency could result from such concentration? The Commissary General at Madras and at Bombay would be styled deputy of the Commissary General at Calcutta, and would be doing much the same work as he does now, only with diminished responsibility and reduced pay.

So impossible would it be for one Commander-in-Chief to command all the three armies in India, that there would doubtless have to be under him a commander of the forces for each of the armies of Madras and Bombay. Then, presumably, in each of the presidencies of Madras and Bombay, the present army would be called an army-corps, and the present Commander-in-Chief would be called Commander of the Army-Corps. He would have to perform the same work as the present local Commander-in-Chief on perhaps reduced emoluments.

Similar remarks are applicable equally to the head-quarter staff of the local army in each of the presidencies of Madras and Bombay. If the Commander-in-Chief in India is to command all the three armies, and the head-quarter staff of each of the local armies is to be abolished, then what is saved by reducing the salaries of the staff of local or presidential armies would be swallowed up by the increased emoluments which must be given to the staff of the Commander-in-Chief for all India. But as this arrangement would doubtless be found impracticable, the head-quarter staff of each of the presidential armies would become the head-quarter staff of army-corps, that is, would do the same work that they are now doing, perhaps on lesser emoluments.

Again, under this arrangement the commanders of army-corps would be responsible for every move to the Commander-in-Chief, which would entail frequent reference to head-quarters, instead of, as now, being under the immediate control of the Local Governments on the spot. The Local Governments of Madras and Bombay are at such a distance from the head-quarters of the Empire, that it would be difficult for the authorities at those head-quarters to efficiently manage urgent affairs, like the despatching of troops to expedition, or on other service, at all events impossible to manage them so efficiently as a local Commander-in-Chief acting under a Local Government; and it would be a waste of power not to employ the services of these local authorities.

The organization of the armies of India, as it stands at present, gives to the army in each of the presidencies of Madras and Bombay a Commander-in-Chief with an efficient head-quarter staff. Besides his high functions as commander of the army, the local Commander-in-Chief is a member of the Council of the Presidential Government. Moreover, he has powers which it would be most inexpedient to concentrate and give under one Commander-in-Chief for all India. For instance, all regimental promotions, whether European or Native, in the Native army, are made absolutely by the local Commander-in-Chief, and he practically, although not nominally, makes all the staff appointments, for he makes nominations, which are, however, submitted to the Presidential Government for approval. The local Commander-in-Chief necessarily possesses great local knowledge of his respective army, and is thoroughly acquainted with the capabilities and merits of the men he promotes or appoints. He can see all his officers from time to time and inspect their work, because he has an area of command which, though large, is not too large to be overlooked by him. But all this cannot possibly be done by one Commander-in-Chief for the whole of such a vast country as India.

If, however, the presidential Commander-in-Chief becomes the commander of an army-corps, a question might arise whether the function of making all these appointments and promotions should not devolve on him, or whether it should not naturally fall to the Commander-in-Chief in India, who, unless he had an adviser of rank from each army-corps (an additional source of expense), could not possibly have the local and personal knowledge for administering it in a satisfactory manner, and could never manage it without frequent references and delays.

But if the presidential commander must exercise this high function,—a function above and beyond the duties ordinarily of a commander of an army-corps,—it is better that he should retain his present title and rank of Commander-in-Chief, which adds to his moral weight with his subordinates.

The same principle applies to the head-quarter staff. When an officer really does the work of an Adjutant-General or a Quarter Master General, it is better that he should be styled so, rather than that he should be styled by some lesser title.

If by an alteration in the status of the three armies the Military Secretariat of the Government at Madras and at Bombay were abolished, there would be little or no saving of expense, for the Military Secretariat of the Government of India would require a corresponding augmentation.

On the whole, there would be but little financial saving from altering the status of the armies of Madras and Bombay. The army commands, the army head-quarters of these two presidencies, the administrative departments, could not be abolished, or if they were, then there would be a corresponding addition at the head-quarters of the army of India. The only effect would be that a limited number of high staff officers would have to do the same work as before on somewhat less pay. There would be some slight reduction of staff salaries, but not enough to produce any appreciable effect financially.

I would answer this question No. 9 then as follows :—

It is expedient to maintain the presidential armies distinct as at present, and the separate departments, as now maintained, are essential to the efficiency of the army administration under the present system.

*Point 10.*—“Should the troops of the several presidential armies as a rule serve in their own presidencies only, except when called out for war; or should they take a recognized share of frontier and other general duty?”

It seems to me that the military arrangement for garrison and maintenance of order in each presidency must of necessity be carried out by the army of that presidency, although the army may at the same time have territory outside its own presidency given over to its safe keeping, as, for instance, Bombay troops garrison Rajpootana and Aden, and the troops of the Madras presidency garrison the Central Provinces, Mysore, the territory of the Nizam and portions of British Burma. In time of war, of course, the troops of all armies consider it the highest honor to be selected for service, and the armies of all the presidencies are liable to serve anywhere, as exemplified by the late expedition to Malta and Cyprus. Except in time of war we should not consider it expedient to hand over the garrison duties of one presidency to another. In the late war with Afghanistan, for instance, the Madras army gave 3 regiments, I believe, for garrison duties performed in time of peace by the Bengal army. Thus the troops near at hand were utilized for immediate service in the field, those at a distance supplying their place for garrison purposes. But in time of peace no doubt all the troops of the armies having frontier stations in their military charge should take a recognized share of frontier duties.

The frontier is the nursery for good soldiers, and we would not advocate its being made over to corps localized for that purpose. Localization in the general acceptation of the term means deterioration. It sometimes happens that the men so localized purchase land, collect their families around them, and are not so willing and ready to serve in all parts of the Empire at a moment's notice as their comrades in arms brought up under different circumstances.

*Point 11.*—“Having regard to the alterations made on our frontier, and redistribution of our frontier garrisons, is it desirable to retain the Punjab frontier force on its present footing, or to place it, in part, or altogether, under the orders of the Commander-in-Chief?”

Though necessarily well acquainted with the past circumstances of this force, I am not sufficiently well informed of the proposed change to enable me to offer any remarks on this point.

*Point 12.*—“Assuming that Sind is to be annexed to the Punjab, should the Sind regiments remain localized as at present, and under whose command should they be placed?”

This question is fully replied to by the Government of Bombay despatch addressed to the Government of India, No. 5137, Military Department, dated 28th October 1878, which is attached for easy reference.

BOMBAY;  
18th August 1879.

RICHARD TEMPLE.

No. 5137, dated Bombay Castle, 28th October 1878.

From—The Secretary to the Government of Bombay, Military Department,

To—The Secretary to the Government of India, Military Department.

Having received a copy of the Government of India despatch, Foreign Department, No. 203 of 1878, dated the 26th September 1878, upon the reorganization of the western and north-western frontier of India, I am desired to offer the following remarks on one of the military portions of that despatch.

2. The Governor in Council feels constrained to express extreme regret at the proposal conveyed in the latter portion of paragraph 8, page 4, of the despatch, to amalgamate the Sind frontier force with that of the Punjab, and to place it (paragraph 9, page 5) under the orders of His Excellency the Commander-in-Chief in India.

3. The Governor in Council would again refer the Supreme Government to my letter No. 258, Military Department, of the 13th March 1878, and to the minute of the late Commander-in-Chief, Sir Charles Staveley, dated 11th February 1878; also to the reply received thereto, contained in Government of India, Military Department, letter No. 1098, dated 21st March 1878, wherein His Excellency in Council is informed that, “when the time arrives for determining what changes, if any, are to be made, the opinion of His Excellency in Council and of Sir Charles Staveley will receive the full consideration of the Government of India.” The Governor in Council feels confident that the consideration of the Government of India has been given to the opinion and wishes of the Government of Bombay as expressed in the Military letter and the Commander-in-Chief's minute above quoted, but is concerned to find that the opinion therein expressed does not seem to meet with the approval of the Government of India. But as the subject is one of such vital importance to the Bombay army, I am directed to forward copy of a minute on the same subject by the present Commander-in-Chief, and to recapitulate briefly the arguments before advanced, in the hope that even now they may receive favorable consideration from the Government of India.

4. To premise, I am directed to state that if the amalgamation of the Sind frontier force with the Punjab frontier force were a political necessity, the keeping of the forces distinct would never be advocated by the Government of Bombay. But the Governor in Council believes that no political inconvenience can arise in keeping the Sind frontier force separate from the Punjab frontier force, and that all political and administrative objects, at which the Government of India aim, can be equally well attained if the Sind frontier force continues to form part of the Bombay army. On the other hand, as the separation of the Sind force is certainly detrimental to the Bombay army, His Excellency in Council hopes to be excused in again pressing this point on the consideration of the Government of India.

5. The late Commander-in-Chief of the Bombay Army, in his minute before quoted, brought to notice the necessity of keeping, as far as possible, the various armies of India in an equal degree of



efficiency, and that pre-eminence or superiority of any one of these armies over the others should, for imperial interests, be avoided. In this maxim His Excellency in Council entirely concurs, and apprehends that it needs no arguments to show how vastly superior an army must become when continually engaged in the responsible duties of guarding an extensive frontier to another occupied only in peaceful parade grounds in the precincts of cantonments. An army so privileged will always find the greater favor in the eyes of the population from which it is drawn. The people from among whom the army of Bombay is recruited, especially the Mahrattas and the Beloochees, are brave and hardy by nature. To now deprive the Bombay service of the right to watch a frontier which, as Sir Charles Staveley truly remarks, it almost looks upon as its heritage, and which is connected with so many of its associations and traditions, will be to impair the soldierly tone and the standard of efficiency of an army which has ever distinguished itself, not only in India, but also in Afghanistan, Persia, China, Abyssinia, and other parts of the world to which the Government of India may have been pleased to order it. The many good officers existing and the many more in the future will likewise be deprived of an admirable school of practical training, and a promising field of distinction for young men of energy and character, so happily described by His Excellency the Viceroy as one of the greatest advantages of a frontier army.

6. Again, if the Bombay army is to be an effective force in all its arms, its cavalry arm ought to be maintained in proportionate strength. At present its Native cavalry consists of seven regiments, and one regiment of European cavalry. Of the seven regiments, three are represented by the Sind Horse. The abstraction of the Sind Horse then would reduce the Bombay cavalry to four regiments only, with one regiment of European cavalry, or five regiments in all,—an unprecedentedly low strength. In fact, the cavalry arm of the Bombay army would, as justly observed by the Commander-in-Chief, be brought into a state of comparative inefficiency from numerical weakness.

7. Sir Charles Staveley's suggestion is as follows: that the division of the army of the frontier from Mooltan to Kurrachee be supplied by the army of Bombay, the Sind frontier force being delocalized, and the regiments taking their turn in relief with other regiments of the army. It appears to the Governor in Council that this proposition meets all the requirements of the case, as Sir Charles Staveley explains, that "it would then be the duty of the Commander-in-Chief of the Bombay army to keep up in that portion of the frontier the number of troops decided on as necessary by the Supreme Government, relieving them from time to time by other corps of the army, such reliefs being carried out in communication with the political authorities on the "frontier." The services of the troops so employed would be under the control of the Frontier Commissioner, except in matters of discipline and interior economy, &c., which would remain in the responsibility of the officer commanding the Sind District, who would be responsible to the Commander-in-Chief of the Bombay army, to whom also he would submit the annual confidential reports.

8. I am also again to invite attention to the fact that, in the event of effect being given to these proposals of this Government, no new precedent will thereby be established, as the Bombay army is already serving, without any political inconvenience or detriment to military efficiency, in Malwa, Central India and Rajpootana, or, in other words, under the immediate administrative or political jurisdiction of the Government of India.

But if the Government prefers that the Sind frontier force should remain local as at present, that force may still as a military body be a part of the Bombay army, and its services would be entirely at the disposal of the political authorities whom the Government of India might depute to the frontier, just as the Bombay troops in Malwa and Rajpootana are at the disposal of the political authorities there, under the direct supervision of the Government of India.

From the tenor of the present despatch of the Government of India, the Governor in Council hopes that the disbandment of a regiment of Sind Horse, and of Jacob's Rifles, will not really be carried out. Except from actual necessity, disbandment ought not, the Governor in Council submits, to be ordered, because it must unavoidably have a depressing effect on the Native army of this presidency, and must diminish the value of the British service in the estimation of the people. At the dictates of financial economy this measure might indeed have to be adopted; but in this case the reduction of the Sind Horse is proposed only in order to provide a military police on the frontier, without any particular saving of expense. But the duty of such an armed police force might be performed quite as well, or indeed better, by the Sind Horse, which is ready to hand, which has performed, and does perform, these very duties, and is moreover efficient cavalry if called for service in the field.

The same remark applies to any other Native cavalry regiment of the Bombay army.

9. The Governor in Council, moreover, concurs with the late Commander-in-Chief in the belief that the army of the Bombay presidency is already reduced to the lowest limits compatible with the duties it is required to perform.

10. In again urging the views of the Bombay Government on this subject, the Governor in Council does so with the desire of giving prominence to what are imperial rather than local interests, and I am to reiterate the assurance already expressed, that the Bombay troops heretofore serving in the western frontier shall be permitted to retain that honorable position; they will discharge their duties to the entire satisfaction of the political authorities to whom the charge of that frontier may be committed by the Government of India.

#### *Minute by the Commander-in-Chief, Bombay Army.*

Having read the copy of the despatch of the Governor General in Council to the address of the Secretary of State for India, dated 26th September 1878, which paper has been transmitted to us officially by the Government of India, there is one particular part of this despatch on which I feel bound to offer some remarks.

The proposal to transfer from the army of Bombay to that of the Punjab three regiments of cavalry, one mountain battery, and one regiment of infantry (Jacob's Rifles) is so serious a diminution of the force to which I have but recently had the honor of being appointed, that, in justice to

myself and to that army, the interests of which I am bound to uphold, I cannot resist supporting the opinion of my predecessor, General Sir Charles Staveley, and placing on record my protest against a reduction which cannot fail to be injurious to the interests of the officers of this army, who look for employment in a frontier force where their military zeal and intelligence find scope not only for advancement, but for the development for those special interests which produce real soldiers.

As at present constituted, Bombay has offered many fields for the development of talents which have produced an efficiency second to none of the three great armies of India; but deprived of its external frontier and shut up within the circle of the other presidencies, the credit and efficiency of the Bombay army may suffer, and all power to gain a practical knowledge of this profession will be cut off from officers whose loyal spirit and soldier-like bearing have ever distinguished this army.

My predecessor has pointed out an alternative scheme upon which I do not feel myself prepared to offer a remark, but the efficiency of the Sind Horse, the mountain battery, and Jacob's Rifles would in no way be influenced by the proposal to make them available throughout the whole of the Punjab, while the discipline and efficiency of the individual regiment would remain, as at present, under the immediate control of the Commander-in-Chief of the Bombay army.

The principle of effecting the union, more or less complete, of Sind and the Punjab being affirmed by the Government of India, and the transfer of the upper portion of Sind being provisionally sanctioned (1876), it becomes necessary to consider the whole question as it affects the Bombay army; and although I cannot but admit that the employment of the troops in the new frontier province should be left to the control of the local military command under the direction of the Chief Commissioner, it still appears to me that no inconvenience can arise, and the Bombay army may be kept intact if the regiments so employed are supplied from Bombay, and belong, as at present, to the Bombay army.

I may instance the position now occupied by the Madras troops at Jubbulpore in the Saugor District of Bengal, some of whom belong to Madras, but *are* under the control of, and are commanded by, a General Officer of the Bengal army.

Another instance suggested by His Excellency the Governor of Bombay is also apposite, but the troops so detached from their own presidency being under their own staff and officers, the anomaly is not so great as in the case at Jubbulpore. I allude to the troops of the Madras presidency employed in British Burma, nor am I aware that any difficulty arises from the employment of these troops under the Chief Commissioner of Burma, although they are under the military control of the Commander-in-Chief of the Madras army.

In addition to the withdrawal of the troops in Sind already noted, I am apprehensive that, by the proposed rectification of the frontier, the whole of the staff as well as the European and Native troops now serving in Kurrachee and Hyderabad, in Lower Sind, as well as those of Jacobabad, may be detached from the Bombay army, and made to form part of the frontier force under the Chief Commissioner of the united province, and consequently under the Government of India, instead of their being, as at present, under the direct control of the Commander-in-Chief of the Bombay army.

I hope, however, that this surmise may not be realized. If unfortunately it were to prove correct, then the Bombay army would be still further curtailed of the regiments shown in the accompanying detail (A), and more especially in cavalry the Bombay army would be reduced to a state of inefficiency which the Government of India could hardly contemplate, should Bombay be suddenly called upon to supply a contingent for field service, or have to detach a column on active service, either within or beyond its own frontier.

The anomaly briefly alluded to in Sir Charles Staveley's minute of the transfer proposed to be effected of the Sind and Punjab forces from the control of the military to that of the civil authorities is one of so wide a scope, endangering not only the efficiency of an army but the safety of an empire that I refrain from comment, more particularly as I see from paragraph 51 (Military) of the Viceroy's minute (dated Nynce Tal, 22nd April 1877) that His Lordship is opposed to it, and recommends that the frontier force shall be placed under the orders of the Commander-in-Chief in India.

BOMBAY;  
18th October 1878.

H. J. WARRE, *Lieutenant-General,*  
*Commander-in-Chief, Bombay Army.*

#### TROOPS IN SIND.

##### *Kurrachee.*

I Battery, 1st Brigade, Royal Artillery.  
Head-Quarters and 5 Companies 83rd Foot.  
10th Native Infantry.  
29th Native Infantry, Beloochees (temporarily quartered at Dehra Ghazi Khan).

##### *Hyderabad.*

II Battery, 2nd Brigade, Royal Artillery.  
3 Companies 83rd Foot.  
27th Native Infantry, Beloochees.

##### *Jacobabad.*

1st Sind Horse.  
2nd ditto.  
3rd ditto.  
2nd Mountain Battery.  
30th Native Infantry, Jacob's Rifles.

#### STAFF.

##### *Kurrachee.*

1 Brigadier-General.  
1 D. A. Q. M. General.  
1 Brigade-Major.

##### *Hyderabad.*

1 Staff Officer.

##### *Jacobabad.*

1 Commandant.  
1 Brigade-Major.

##### *Summary.*

2 Field Batteries, Royal Artillery.  
1 Regiment British Infantry.  
3 Regiments Native Cavalry.  
1 Mountain Battery.  
4 Regiments Native Infantry.

*Point 13.*—“ Is the present organization of the supply and transport departments of the army that best adapted to its requirements in peace and war, or are any changes desirable; and if so, of what nature?”

I am glad to believe that the commissariat department of the armies of India is second to none in any country. There may be faults of complicated accounts and in minor points of administration, but, on the whole, I believe the British soldiers to be better supplied than any other fighting man in Europe. Recent experiences in Persia, Abyssinia, the expedition to Malta, and the campaign in Afghanistan, all tend to confirm this opinion regarding the great department of supply.

But during time of peace the demands on the commissariat are very different to those in time of war, as was very fully brought out on several recent occasions. Establishments had been very rightly cut down to the smallest proportions consistent with efficiency, and when a sudden call was made to fit out an expedition in a comparatively short time, the commissariat became over-taxed. From it was demanded, not only a very varied supply of food of sorts, but clothing for followers, gear for horses, horse shoes, nails, medical comforts, boots, blankets, carpentry in all its branches, curry combs, horse brushes, and many articles for cleaning ships' deck, such as swabs, scrapers, and brooms; also cabooses and latrines; all these things and many more were required from the commissariat department. The packing of medicines also devolved on this department; indeed, with the exception of fitting up the ships, providing the water-supply and clothing the troops, *everything* was expected to be done by the commissariat. It was found very difficult to enlarge the existing establishment with sufficient rapidity to meet all these demands, and it is well worthy of consideration whether the system should not be altered.

For instance, the great clothing department might well be called upon to relieve the commissariat of the supply of clothing, boots, blankets, water-proofs, &c., for the followers of an army. The medical departments, through their store-keepers, might be required to see to the packing as well as to the supply of medical stores and comforts. The ordnance departments might supply horse shoes and horse gear generally, and for expeditions beyond the sea the charter parties of each ship engaged might include the supply of all articles necessary for the cleanliness, sanitation, and comfort of the troops while on boardship; in other words, the master of the vessel should supply swabs, scrapers, latrines, cabooses (cooking places), and lanterns for use on boardship. The commissariat might be relieved in many other ways, and the work more evenly distributed among the great departments, with great benefit to the more expeditious working of the system of supply.

With these few words on the department of *supply* I turn to the transport department.

I must premise by representing that there is no such department existing in time of peace in India. Nor do I at all advocate that any such expensive department should be maintained in time of peace, for we see by recent experience that with a small amount of well-understood organization in time of peace such a department could be readily formed in time of war. The remarkable manner in which thousands of pack animals, camels, mules, bullocks, &c., and hundreds of carts were collected, in a short space of time, by the civil administration, all along our frontier at the commencement of the late war, confirms me in the opinion that it is quite unnecessary for Government to go to the expense of keeping up expensive carriage during peace.

On the other hand, when carriage including both beasts of burden and vehicles, is collected for the army, there is much difficulty in taking care of, and making the best use of, the said carriage. The reason is that the management of carrying is a speciality requiring separate and undivided attention, and much special knowledge and experience on the part of those engaged in it. It is not to be expected that military men can have an intuitive knowledge of all this, and to do it well they must be trained. And as such training cannot be acquired on the spur of the exigency in war, it follows that the Government should in time of peace maintain a small but efficient number of transport officers and transport officials.

As auxiliary to this, and with little or no extra expense, a beginning might be made by telling off in each regiment and battery, whether European or Native, a certain number of intelligent soldiers (when Europeans able to speak the language), whose duty it would be to read up and understand thoroughly any order which might be from time to time published on the subject of army transport, and who would, when their regiment was on the march, be responsible to the commanding officer, under the orders of the regimental quarter-master, for the transport of their regiment. When the regiment was in garrison these men could perform their ordinary duties, and a very slight remuneration, with some small distinguishing mark, would be quite sufficient, during times of peace, to keep them up to the mark, particularly if they had the certainty during times of war of at once taking their places as conductors or sub-conductors of the different division of the transport train about to be formed. Recent experience has taught us that any number of good officers can be obtained for transport duties; and these officers gifted with small powers of organization, which exist in almost every intelligent Englishman, would, with the assistance of these trained men, thoroughly up in all orders regarding transport, very quickly organize a train quite equal to the ordinary requirements of an army in the field.

It is, I am aware, a vexed question as to whether the transport department should be a department of itself, or whether it should (in the field) be under the control of the Commissary General of the army. Now I take the wants of an army to be divided into four parts:—

- 1st—regimental equipment;
- 2nd—food supplies;
- 3rd—warlike stores;
- 4th—comforts, such as hospital tents and supplies for standing camps.

Regimental equipment is, of necessity, under regimental charge, and the carriage with its proper establishment for this equipment having once been handed over, the officer commanding is responsible for its safety. Casualties will, of course occur which must be filled up by the transport train. Of the other three requirements, two, *i.e.*, food supplies and comforts, are the direct care of the commissariat, whereas the remaining requirement, warlike stores, falls to the responsibility of the ordnance department. But the latter department having been once supplied with the necessary amount of

carriage and establishment, becomes independent of the transport train, except for the supply to fill up casualties, much in the same manner as a regiment. The commissariat then is responsible for the bulk of the stores to be carried, and the Commissary General knows the wants of the troops in front, and is kept well informed regarding the resources of the country, and consequently knows what to push forward and what to keep back. Under these circumstances, I am of opinion that the transport train of an army in the field should be under the control and at the orders of the Commissary General, subject, of course, to the immediate command of the general officer or other officer commanding the forces in the field.

*Point 14.*—“Are the warlike stores now procured and maintained in the manner most economical consistent with efficiency?”

To this question I think I may reply on the whole in the affirmative, although certain suggestions may be made here for the more economical working of the ordnance department and other departments of supply of India. The orders lately issued, by which the ordnance department is enabled to purchase locally or by private arrangement stores which were formerly obtained from England, will, we hope, reduce expenditure considerably.

The cost of our gunpowder and small arms ammunition might be reduced by increasing our area of supply, and consequently the outturn. It is a question whether Mooltan and Ferozepore could not be more cheaply supplied from Kirkee than from Dum-Dum. The Ordnance Commission certainly recommended that Ferozepore and Mooltan should be so supplied from Kirkee on the opening of the Indus Valley Railway.

The cost of our manufacture of both powder and ammunition is high, in consequence of our superintendence being costly in proportion to the outturn, but the outturn might be materially increased, in both factories, without increase or with very little increase, of superintendence.

The cost of supplying harness to Madras and Bombay might hereafter be reduced by establishing a factory in either presidency for the supply of both armies. At present Madras procures its harness from England, and Bombay, although it makes up its own, has to procure a great deal of its leather from England, because country leather, however carefully cured by natives, cannot be used for the more important parts of the harness; consequently, if good and cheap harness is to be made, a tannery is required. The military budget estimate of India for the year 1879-80 shows an estimated expenditure for ordnance establishments, stores and camp equipage for all India in India of Rs. 56,38,000, and the estimate of expenditure in England for stores as expected to be a charge in the English accounts for the same year at Rs. 32,90,000, or a total of Rs. 89, 28,000.

The charges are high for the purpose of meeting the possible exigencies of the late war with Afghanistan. But in these days of improved communications of steam and telegraph, it becomes a question whether the charge for the ordnance department could not be materially reduced by reducing the ordnance stores to a minimum. War does not break out so suddenly that we should have no time to communicate with England by telegraph, and procure what was urgently required by canal steamers on an emergency. But I would also remark that in these days of improved armament, and when that armament is constantly changing, a large accumulation of stores of a particular kind is frequently a dead loss to the State, because they become obsolete on the change of one description of gun for another: thus stores procured in large quantities for breech-loading ordnance is now nearly useless on the re-introduction of muzzle-loading guns, and these stores may again become obsolete on the possible re-introduction of breech-loading ordnance. Again, our arsenals are now stocked with shot and shell of an obsolete pattern which, if sold as old iron, would not recoup the price of carriage from the arsenals to the principal metal marts. The same remark may be applied, though in a lesser degree, perhaps, to other warlike stores in which I would include clothing for the army, medicines, and miscellaneous stores. It appears to me that if reductions of expenditure can be made in all these departments of supply, so as to meet our actual requirements without retaining a large surplus, subject to deterioration, it will be a far better economy than any that can be obtained by reducing fighting strength or general efficiency by small savings in the salaries of an efficient staff, which must tend to make the profession of arms less honorable and valuable in the eyes of our fellow-countrymen.

*Point 15.*—“What lines should be considered and maintained as our main lines of communication, and what new lines of road and railway are of the most urgent importance?”

In the Bombay Presidency the main lines of communication to be maintained are as follows:—

#### *Railways.*

The Bombay, Baroda, and Central India Railway starting from Bombay\* runs nearly due north to Surat and Broach, crossing the Taptee and Nerbudda rivers, and taking a slight bend to the east passes through Baroda, and here with a decided westerly curve strikes the province of Guzerat, and crossing the Mahay River passes Ahmedabad, the head-quarters of the Northern Division, and terminates at Veeramgaum, a distance of 349 miles from Bombay.

The one important branch of this line of railway is the branch to Wadwan, as it places us in easy communication with Rajkote, our only military cantonment in Kattywar. This branch has its junction at Veeramgaum, and extends to Wadwan, a distance of 30 miles, from which place Rajkote is distant about 50 miles by a good road. Veeramgaum is also the junction of the great line of railway, which, already completed to Kharroghora, a distance of 14 miles, will eventually join the Bombay, Baroda and Central India Railway with the Rajputana State Railway at Ajmere *via* Pahlunpur, Mount Aboo, Erinpura, and Pali. It is also proposed to extend the Bombay, Baroda and Central India line through Cutch to Hyderabad (Sind) *via* Aujar and Luckput, or by an alternative line having its junction at Pahlunpur which would strike Hyderabad (Sind) *via* Deesa, Nuggur, Parker, and Budeena, and in either case join the Indus Valley State Railway at Kotree.

The Sind, Punjab and Delhi Railway leaves Kurrachee, the head-quarters of the Sind Brigade, the most northern and westerly point of the presidency, and terminates at Kotree on the Indus opposite Hyderabad (Sind), a distance of 105 miles. Here it is joined by the Indus Valley State Railway, which, following the course of the river, on the right bank, as far as Sukkur *via* Sehnan and Larkhana, is there broken by the Indus, which is not yet bridged. Sukkur is 329 miles from Kurrachee and 224 miles from Kotree. The line of rail is taken up again at Rohri on the left bank of the river, and,

taking a north-easterly direction, reaches Mooltan *via* Bahawalpur, leaving Sind about 80 miles from Rehri, nearly opposite Kusmore, on the frontier between Sind and the Punjab. It has been proposed to extend this line by a branch from Sukkur to Jacobabad *via* Shikarpur, a distance of 50 miles.

The Great Indian Peninsula Railway starting from Bombay makes its way in a north-easterly direction through Callian (the junction for Poona and Madras) up the Tull Ghât to Deolalee, a great depôt for troops arriving in and leaving India, and passing through the collectorates of Nassik and Khandesh, crossing the Godavery and Tapti Rivers it leaves the Bombay Presidency near Bhosawal, which station is the junction for the lines striking into the Central Provinces.

Bhosawal is 276 miles from Bombay. Further on at Khandwah we find the Holkar State Railway having a northerly direction, and which crossing the Nerbudda passes Mhow, the headquarters of the Mhow division of the Bombay army, and so on through Indore to Rutlam, where it at present terminates.

This line will eventually be extended through Neemuch to Nusseerabad and Ajmere, where it will join the Rajputana State Railway. I should not have mentioned this line at all, as it is out of Bombay territory, were it not that the country through which it passes is held by Bombay troops, and is therefore one of our important lines of communication.

At Callian junction the Great Indian Peninsula Railway takes a south-easterly bend, and ascending the Bhore Ghât reaches Poona 119 miles from Bombay, the head-quarters of the Poona Division of the army, and continues through Sholapore, near which station it leaves the Bombay presidency and joins the Madras Railway at Raichore. Near Sholapur is Shahabad, the junction of the Nizam's State Railway, to Hyderabad (Deccan). Sholapore is 283 miles from Bombay.

At Munmad, north of Nassik, a chord line has been lately opened, but is not quite finished, which crossing the Godavery passes through Ahmednugger, a large military cantonment, and joins the line to Sholapur at Dhond on the Bhima River.

This completes the description of finished railways; others are in contemplation, such as the one to Hyderabad, Sind, already mentioned; one from Sholapur to Gudduck, which at that station will eventually join the line from Carwar on the west coast, which passing Dharwar, a military cantonment of the Bombay army, will go through to Bellary in Madras Presidency where a large force of the Madras army is stationed, and there join the Madras Railway. Dharwar above mentioned is about 50 miles from Belgaum, the head-quarters of a brigade of the Bombay army.

The principal roads in the presidency are those leading from Bombay to Gwalior *via* Nassik, Malligaum (a military cantonment), Dhoolia, Indore, and Goona. Another from Bombay passes through Poona and Ahmednugger to Nagpur in the Central Provinces, and a third leads from Poona to Dharwar *via* Satara, a military station, Kholapur, and Belgaum. From Dharwar there is a good road to Carwar on the coast, and Belgaum is connected with Sholapur by a fair-weather road passing through Beejapur. There are many other fair roads all kept in good order.

All the above must be considered and maintained as our main lines of communication, but there are no lines of roads or of railways in the Bombay presidency calling for immediate or urgent construction.

RICHARD TEMPLE.

### Further answers to questions regarding the strength, the duties, and the requirements of the Bombay Army.

#### *Minute by the Governor of Bombay, dated 9th September 1879.*

The Commission on Army Organization, under cover of letter No. 380, dated 29th August 1879, from the Secretary to the Commission, having forwarded to me a series of questions on which they request my opinion, I have much pleasure in supplementing my minutes of the 31st July and the 15th and 18th August 1879, on the subject of army organization and reserves, with a few remarks on subjects not already reported on in those minutes.

#### QUESTIONS.

1. What, in your Excellency's opinion, should be the full war establishment of the army of India calculated under the two heads—

(a) The number of troops that India ought to be able to place and maintain in the field for service wherever required?

(b) The garrisons and reserves to be maintained?

2. What, in your Excellency's opinion, should be the organization of the army of India? Is it necessary, in the present circumstances of the country, to maintain the three presidential armies under three separate Governments and three Commanders-in-Chief, with three large staffs and separate departments?

3. Could not all the advantages of separate armies be secured with a great increase of efficiency and economy by forming the entire army of India into one army, under one Commander-in-Chief, and dividing it into four army-corps? Each army-corps to be under the command of a lieutenant-general, and to be entirely complete and self-contained in respect of organization, arms, and equipment. The lieutenant-general to be vested with complete powers of control, and to be responsible for the appointment of all regimental officers, subject only to the confirmation

#### ANSWERS.

1. Is fully replied to in my minute of 18th August 1879.

2. My remarks on question 1 refer to this question also.

3. This has already been partly replied to in point 2 of my minute of 18th August 1879; but in this question allusion is made to four army-corps.

For reasons already explained, I do not consider that all the advantages of separate armies would be secured by forming the entire army of India into one army under one Commander-in-Chief, and dividing it into four army-corps under lieutenant-generals. I cannot see how greater efficiency could be secured by reducing the status and power

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of the Commander-in-Chief for India in respect to the nomination of officers commanding regiments.

The officers of all the army-corps to be equally eligible for service on the staff of the army.

The army-corps to be territorial and localised, one in the north, one in the south, one in the east, and one in the west. The army-corps of the south and west to be, as far as practicable, recruited from the districts from which the present armies of Madras and Bombay are now recruited, thus maintaining four armies distinct in race, religion, and language, but so organized as to be practically in a state of thorough efficiency and readiness for action in any direction in which the army of India may be called upon to undertake separate or combined operations under the Commander-in-Chief of India.

What should be the strength of each army-corps?

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of the existing heads of the local armies by centralizing the greater part of the administrative labor in one army head-quarter some thousands of miles removed from at least two out of the four *corps d'armée*.

As regards economy of administration, I would suggest that the proposition under review might have the effect of causing some slight economy as regards the armies of Madras and Bombay as at present constituted, but at the expense of efficiency, and that too, without any mark financially being made on the military budget. But in other respects expense, and serious expense, would be incurred. In the first place, the proposition, although advocating a partial (of course only a partial) reduction of two high appointments in the Madras and Bombay armies, with their staff, entails, for what is now called the Bengal army, the material increase of two lieutenant-generals commanding army-corps (north and east) and their respective staffs, in addition to the one Commander-in-Chief for all India, thereby making three high appointments in the superior ranks of the army of Bengal where one now suffices, *i.e.*, the Commander-in-Chief in India, and five high appointments in the whole of India when at present only three exist, *i.e.*, the three commanders-in-chief. I therefore think that the proposed arrangement, so far from conducing to economy, would lead to augmentation of expenditure.

Again, lieutenant-generals commanding army-corps would, of course, be expected to inspect their corps thoroughly in the same way as local commanders-in-chief do at present, and would doubtless be accompanied under the new staff administration (as proposed in question 16 of the paper under reply) by an equal number of staff officers as at present accompany a local commander-in-chief; a chief of the staff, with higher rank, emoluments, and functions, being substituted for a military secretary. The expenses incurred by the State for travelling allowances under this arrangement would be much the same as at present; but the system would have the disadvantage of concentrating on the staff, travelling with the lieutenant-general, all the minor work at present carried on by the deputies to the adjutant, quartermaster, and judge advocate generals during the absence of the lieutenant-general and staff on tour of inspection, thereby causing delay in the ordinary army routine.

The Commander-in-Chief of the army of India also must necessarily travel from the Northern provinces to those of Southern India and from east to west at very great expense, in excess of present expenditure, which, under arrangements now pertaining, is neither required nor incurred; for by paragraphs 2 and 3 of question 3 it is proposed to vest all the patronage of the four army-corps, with the exception of the appointment of regimental officers and the nomination of regimental commanders, in the one Commander-in-Chief for all India, who, to administer this patronage efficiently, must, of necessity, travel and gain a personal knowledge of the merits of the officers of his four army-corps. He could not possibly administer this important patronage in the two distant army-corps of Madras and Bombay as well as it is now administered by their respective commanders-in-chief. The regimental officers, owing to the great distances which separate them from army head-quarters, would seldom, if ever, have the opportunity of seeing the head of the army, unless he visited them.

Those who have experience of the great distances to be travelled in India will perhaps acknowledge that one Commander-in-Chief for all India could hardly be expected to visit the whole of his army more than twice in his tenure of office, and it might be considered inexpedient that he should do more, or even this much, on the score of the great expense to be incurred.

Indeed it appears to me that any one Commander-in-Chief, unless endowed with strength, energy, and activity far above the average of men having attained the standing which his exalted army rank would, under our present military system, necessitate, would be overtaxed with work and responsibility.

Another objection is well worthy of consideration:—would it be expedient for the one head of the armies of India to

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## ANSWERS.

be constantly removed from the head-quarters of the Viceroy and Supreme Council, of which he is *ex-officio* senior member? But either this objection must be endured, or else the greater objection must be faced, of the one Commander-in-Chief being so widely separated from two at least of his four army-corps.

Paragraph 4 of question 3 deals with the distribution and recruiting of the army-corps. This also has been partly dealt with in my reply to point 9 in my minute of the 18th August 1879; but a few remarks may now be added so as to deal with the question of the fourth army or army-corps.

The armies should doubtless be territorial and localized as far as possible in time of peace, and required to serve anywhere in time of war as at present; and should generally be kept distinct in race and religion. But this would entail recruiting one of the army-corps, according to the proposition under reply, from Hindustanis, that is, from the North-Western Provinces and Oudh—the very races which caused all our troubles in the mutinies of 1857-58. It may be replied that, as at present, the Bengal army and the Punjab Frontier Force are recruited and maintained generally from the Punjab and Oudh, with an admixture of Hindustanis. This plan can still be carried out under the new arrangement proposed; but, in this case, the proposition “to maintain four armies, distinct in race, religion, and language,” would not be fulfilled, and would tend to make the army-corps of the north and east as one, and so maintain that preponderance of the (so to speak) one army over those of the west and south which has always been considered objectionable.

4. If such a formation of the army were adopted, would it not, in your Excellency's opinion, be possible to carry out a very material reduction in the staffs and departments, placing at the same time at the disposal of the lieutenant-general commanding army-corps a staff so efficient and complete as to enable him to relieve the Commander-in-Chief of India of much unimportant work which now comes before him?

4. In reply to this question, I would answer, if the lieutenant-generals commanding army-corps under the proposed scheme of organization with a reduced staff could “relieve the Commander-in-Chief of India of much of the unimportant work which now comes before him,” how much more in a position to do so are the present local commanders-in-chief (with their able and efficient staffs), were such assistance asked or required of them. The formation proposed would not, in my opinion, effect any reduction of staff for reasons before given, *i.e.*, that two extra lieutenant-generals and their staff would be created and two local commanders-in-chief reduced partially: the proposed arrangement would probably be more expensive than the present organization.

5. Supposing such an organization to be adopted, what proportion of each army-corps should be prepared for mobilization, and maintained in a state of readiness to take the field at short notice? What should be the relative proportion of each arm of the service in such active portion of each army-corps?

5. Supposing the organization of army-corps to be adopted, the proportion of each corps to be prepared for mobilization and maintained for instant active service would depend, first, upon the strength of the army-corps, and secondly, on the internal and garrison duties required of it. When this information is furnished, I shall be glad to record my opinion. As regards the latter portion of the question regarding the proportion of each branch of the service to be maintained for purposes of war, this is a technical military question with which I need not deal.

6. Setting aside historical sentiment, and looking to the relative importance, the population, and the wealth of the various Local Governments of India, is there any more reason why the armies of Madras and Bombay should at the present time be under the Local Governments of Madras and Bombay and under local Commanders-in-Chief with separate departments for every branch of military administration, than there is that the same system should be followed in the Lower Provinces of Bengal, the North-Western Provinces, and the Punjab?

6. Although it may be unnecessary to advert to historical sentiment alluded to in the question, yet it may be well to remark that traditions and associations are valuable in State affairs; and that the maxim of not disturbing and unsettling old-settled institutions, which have worked well for several generations, is applicable to the armies of Madras and Bombay. The system of having these separate armies with separate administrations under their respective Local Governments has never failed on any one occasion, but has always succeeded; and on the greatest occasion of trial (1857-58) proved one of the several means of preserving the empire of India. And on many other historic occasions the aid of the Local Government at Madras or Bombay in the management of expeditions and such like military operations has been conspicuously valuable.

There is an entire difference between the Local Governments of the Madras and Bombay presidencies and the three Local Governments forming the Bengal presidency. In the three sub-divisions of the Bengal presidency, there being one army, the regiments are interchangeable between Bengal, the

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## ANSWERS.

North-Western Provinces, and the Punjab. This interchanging is indispensable, and therefore the army is necessarily separated from the Civil Government. Even if the present Bengal army be formed into two army-corps, still this interchange of troops must be to a great extent maintained; for the Lower Provinces (Bengal and Behar) must be garrisoned by troops from the North-Western Provinces. But the case is different in the Madras and Bombay presidencies. In each of those presidencies the troops belong entirely to their own presidency: there is no interchange within the presidency of troops belonging to other presidencies, and consequently the connexion between the Local Government and the local army is convenient, and its practicability has been shown by experience uniformly favorable.

Moreover, the system of having these two local armies under their respective Local Governments distributes properly the military business of the country, and relieves the over-taxed Supreme Government of much military work. Anyhow, there must always be much military business which must come before the Government, whether that Government be Local or Supreme.

The present question then contemplates that all the military business now done by the Governments of Madras and Bombay should be transferred to the Government of India. This business is very considerable. It must, in the aggregate (Madras and Bombay), be nearly equal to that of the Bengal presidency, inasmuch as the Madras and Bombay armies are together nearly equal to the Bengal army. Thus the project would about double the military business of the Government of India. And while this additional demand is made on the governing strength of the Government of India, the governing strength of the Madras and Bombay Governments would, in this particular, be wasted. Having myself served a full term in the Government of India, I am in a position to submit an opinion that the Supreme Government has already work as vast as it can conveniently perform, and is indeed almost overburdened. Why should it now be asked to undertake a large additional burden, which burden has been, and is, borne efficiently by the two Local Governments of Madras and Bombay? If thereby any large saving of expense could be managed, or, if there were some manifest improvement of military efficiency, then there might be some reason for piling a new burden on the heavily-burdened Government of India. But it has been shown that no such saving of expense is possible, nor any such improvement of military efficiency. As to administrative efficiency, there would be deterioration instead of improvement by reason of the extraordinary concentration of all the commissariat and ordnance affairs throughout India, with their infinity of detail, in the hands of one single departmental office at Calcutta or Simla.

Again, the Government of India ordinarily resides within the Bengal presidency, and has the various parts of the Bengal army under its observation; but such observation is physically impossible as regards the Madras and Bombay armies, which are so widely separated at such great distances. For this reason alone, it is obviously desirable that the responsibility should be in the first place upon the two Local Governments on the spot, subject always to the general control of the Government of India.

I have therefore to answer to this question, that there are manifold and grave reasons why the Madras and Bombay armies should remain, as heretofore, under their respective Local Governments.

7. In replying to the two paragraphs of this question, I would deal with them generally. Taking into consideration the admitted necessity of keeping the military forces of India distinct (whether they be called presidential armies or army-corps) in race and religion, it becomes necessary to recruit each army from its own territories. The Government of each presidency, with the aid of the local head of the army and the officers serving under his orders, naturally recruit from the very best fighting material available, and

7. As a matter of fact, if a large reserve for the northern armies is to be maintained, is it not the duty of Government to see that this reserve is formed of the most efficient fighting men whom it is possible to procure and to maintain, with due regard to the admitted necessity of keeping up armies of different races and religions, and with due regard to the safety of the empire?

Does your Excellency look upon the Madras and Bombay armies in their present organization as constituting the most efficient reserve for the armies of Upper India?



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## ANSWERS.

consequently obtain the men most efficient as soldiers, so far as it is in their power to do so. It is undoubtedly the duty of Government to see that the most efficient men are procured and maintained, as is the case in the Bombay army. One army or army-corps naturally acts as reserve to the other in time of danger; as, for instance, the Bengal or Madras armies would have reinforced the Bombay army in the Persian campaign of 1857, had their services been required. A considerable portion of the Bombay army rendered assistance to the Bengal forces in the Central India campaign in 1858. Both the Madras and Bombay armies took subordinate parts to the army sent from Bengal to China in 1860-61. The Bengal army, on the other hand, supplemented the force sent from Bombay to Abyssinia in 1867-68; and the three armies took part in the expedition to Malta. Again, in the recent campaign, all the armies of India took their share. In the latter campaign the Bengal army took the most prominent part, the war taking place in the first instance just across its own frontier, in the Khyber pass and Kuram valley. But the Bombay army took an active part in the Kandahar column, and supplied the reserves for that column; the army of Madras garrisoning, in some instances, important positions in Bengal, the troops from which, by the exigencies of the service, had been withdrawn. But I think it would be questionable policy, and likely to lead to military deterioration, if the armies of Madras and Bombay were in future to be considered and spoken of as "reserves to the armies of Upper India," as the wording of the question under discussion would seem to imply.

8. What is the feeling of the <sup>Madras</sup> <sub>Bombay</sub> army in respect to employment in other presidencies in India in times of peace? For instance, at the present time, 26 regiments of the Madras army are employed within their own presidency and no less than 14 outside its limits, some of them at distant stations in Bengal. Is this service popular with the army? Are the Madras regiments more efficient than the Bengal regiments, or are they, when on this duty, cheaper, the cost of relief, transport of clothing, equipment, and compensation for food being taken into account. If they are neither cheaper nor more efficient, is there any object in garrisoning Bengal and Burma partly from the Madras army?

8. To the first portion of this question I reply, the Bombay army would undoubtedly gladly serve beyond their own territories in time of peace if required to do so. This fact is exemplified by the willing service rendered in Rajputana and Aden. Rajputana is garrisoned by Bombay troops at Deesa, Mhow, Neemuch, Nusseerabad, &c.; and it should be remembered that the Bombay forces also garrison the Mekran Coast and positions in the Persian Gulf. The climate of Aden and the coast of Mekran is not such as to render this service, in the ordinary acceptation of the term, popular; yet it is accepted and carried out in a soldier-like spirit. I believe the same spirit to exist in all the armies of the empire. The latter portion of the question, whether there is any object in garrisoning a portion of Bengal and Burma with Madras troops, may be answered as follows. The Bengal Native army, as by military budget estimate for 1879-80, numbers 64,039 men all told, against 34,293 men in the Madras army, and 26,646 in the Bombay army. The number of British troops employed in each presidency is Bengal 40,198, Madras 12,624, and Bombay 11,798, which gives a total fighting strength, British and Native, for each presidency as follows:—

				Men.
Bengal	...	...	...	104,237
Madras	...	...	...	46,917
Bombay	...	...	...	38,444
			Total	189,598

By the above figures it will be seen that the Bengal army numbers more than double those of the other two presidencies together. If, then, Bengal were called upon to garrison Burma and Rajputana, it would require a very material increase to its army, which would add to the preponderance of the one army as it now stands, or of the two army-corps as now proposed, over the other two armies or army-corps; which would be undesirable, and perhaps politically dangerous. Although in my replies to paragraph 10 in my minute of 18th August 1879, I do not advocate that the troops of one presidency should garrison another presidency, except in time of war, I make no objection to their having territory outside of their own territorial division to guard. Indeed, I think this in many respects advantageous to the presidential armies, as it gives the men more self-confidence and pride in themselves, in virtue of the trust reposed in them by the Supreme Government, for which reason I should

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9. Is your Excellency aware of any difficulty in obtaining recruits for the army of a good class of healthy strong young men of the agricultural population, physically qualified to perform the duties of a soldier?

10. Has it ever been asserted that a difficulty in obtaining efficient recruits is attributable to the unpopularity of the service of the local army beyond the limits of its own presidency in times of peace?

11. If your Excellency is of opinion that the Army-corps should be formed territorially, and as far as possible localized within its territorial area, what alteration would you propose in the strength of the various armies to render them fit for their home duties, and to place them in a position to take part in any war going on in India by the detachment of a force of all arms?

12. Could not the duties of the Native army be very materially decreased by a general concentration of troops in large centres in the neighbourhood of railways, thus abolishing all small cantonments and outlying and isolated stations?

13. Would not this arrangement enable the officers commanding army-corps to make a much larger number of men available for service, and justify a very considerable reduction of troops in some parts of the country; and would it not enable the discipline, exercise, and instruction of the troops to be more effectively carried on, and render the formation of camps of exercise more feasible?

14. Recognizing the fact that India cannot afford to maintain the most perfect army which could be devised in which economy did not enter, and that large reductions of army expenditure are absolutely essential, what changes and alterations would your Excellency be prepared to recommend in the organization and administration of the army?

15. Are you in favor of amalgamating the Adjutant General and Quarter Master General's Departments under a Chief of the Staff, so that, as in other armies, the staff of the army shall consist of certain grades of staff officers, the work being apportioned as may be desirable, but without a division, as at present, into two distinct departments?

16. If the army were divided into army-corps, and power given to lieutenant-generals commanding to dispose of many questions which are now referred to superior authority, so that important matters only were treated of by the central military authority at head-quarters, would not a staff of about the following strength be sufficient?

*Head-Quarters.*

- 1 Chief of the staff.
- 4 Officers of the general staff.
- 3 Officers of the general staff for intelligence duties.
- 1 Officer of the general staff for royal artillery, to be Inspector-General of Artillery, with two staff officers.
- 1 Officer of the general staff for royal engineers.
- 1 Officer of the general staff for musketry inspection, &c.

regret to see Rajputana taken from the Bombay army; and the same feeling would probably actuate the Madras army as regards the military charge of Burma and the territories of the Nizam. Moreover, it would be politically objectionable to have Bengal troops (which under the new organization would be really Hindustani) in the Nizam's dominions.

Madras troops, again, are much better suited to the climate of Burma, which would prove very trying to the Bengal troops, who chiefly come from the north-western extremity of India. Service in Burma can hardly be popular with Madrasis; but it would be very unpopular and distressing to Punjabis.

9. I am not aware that there is any difficulty in procuring recruits of the class and physique mentioned in this question; and the liberal concessions lately made to the Native army will doubtless add to its popularity.

10. This question has been replied to in answer to question 8; but I would here remark that I have never heard it asserted that service beyond its own territories, such as in Rajputana, Aden, the Mekran Coast, and Persian Gulf, in time of peace is unpopular with the Bombay army, or that such service militates against obtaining efficient recruits. For a fuller explanation of this subject, I would refer to point 10 of my minute of 18th August 1879.

11. The general military requirements of the Bombay army are clearly laid down in my minute of the 31st July 1879, page 10, and the following, by which it will be seen that, after supplying troops for all internal purposes, a slender margin of one regiment of Native cavalry and seven regiments of Native infantry is all that remains for purposes of war; so, to place a force of all arms in the field for war, additional strength in cavalry and artillery would be necessary.

12. This is very fully replied to as regards the Bombay army at page 11 and following of my minute of 31st July 1879. But it should be remembered that every concentration of troops means the building of new lines at considerable expense.

13. I have always advocated the concentration of troops as far as is consistent with political and military safety; but in the Bombay presidency no very considerable reduction of troops could be made in any particular division of our territories. Any concentration which can, with due regard to safety, be carried out, will certainly tend to the better discipline, exercise, and instruction of Native troops. It would, moreover, meet with the approval of all military men, and conduce to the more practicable formation of camps of exercise, than which, in times of peace, nothing can be more desirable for the proper training of our armies.

14. My reply to this question will be found at page 2, point 6, and at page 8, point 14, of my minute of the 18th August 1879.

15, 16, and 17. As I have throughout endeavoured to show that the establishment of army-corps would lead neither to financial advantage nor military efficiency, I do not think it necessary to offer any opinion on the above questions.

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*Army-Corps.*

- 1 Chief of the staff.  
 2 Officers of the general staff.  
 1 Staff officer of royal artillery.  
 1 Staff officer of royal engineers, to be Deputy Inspector General of Engineers, Military Works, and Fortifications.  
 1 Deputy Judge Advocate General.  
 Departmental staff officers in addition to be under the Chief of the Staff of the Army-Corps.

17. If your Excellency does not approve of this arrangement, either in strength of *personnel* or nomenclature, what would your Excellency propose?

18. Does your Excellency consider that it would be advisable to place the administration of the royal artillery in India more directly under the Adjutant General or Chief of the Staff, as is the case with the other arms, the Adjutant General being provided with assistance in special artillery questions or technical subjects in the person of the Inspector General of Artillery?

19. Would it not be in all respects a more efficient arrangement if the Inspector General of artillery acted as the artillery adviser of the Commander-in-Chief; the Inspector General having two staff officers to assist him, one of whom should carry out the duties now performed by the present Deputy Adjutant General of Royal Artillery in India? Or, in other words, the amalgamation of the offices of Inspector General of Royal Artillery and Deputy Adjutant General of Royal Artillery effected, making the former the head staff officer of artillery in India, and associating with him two staff officers who would carry on the work under him?

20. In your relations as Commander-in-Chief with the Military Department of Government, does your experience suggest any modifications of procedure or other matter tending to facilitate business, reduce expenditure, or add to general efficiency of administration?

21. Does your Excellency think that the Departments of Ordnance, Military Works, Commissariat, and Military Accounts should be brought more *en rapport* with the Commander-in-Chief; and if so, will you suggest the mode of giving effect to your views?

22. Does your Excellency consider it an advantage or otherwise to have three separate Departments of Commissariat, Ordnance, Medical, Clothing, &c., &c., for the work of the army of India?

23. Is your Excellency of opinion that any reduction can be made in the number or class of British troops serving in India? Could India dispense, for instance, with any regiments of infantry or cavalry, or any battery of artillery; or could garrison batteries at any station safely take the place of field batteries, or field batteries take the place of horse artillery?

24. Bearing in mind the fact that the annual cost of officers to men is as follows—

	For a regiment, British cavalry.	For a regiment, British infantry.
	Rs.	Rs.
Officers	1,46,797	1,43,793
Non-commissioned officers and men	1,14,061	1,76,126

Is your Excellency of opinion that any change in the organization of regiments is possible so as to maintain the fighting strength of the British force in India, and at the same time diminish the relative cost of officers to men?

25. In your opinion is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the Home army?

26. In your Excellency's opinion would it be advisable, apart from the question of reduction of the strength of the army, to modify the present proportion of British to Native troops?

27. Reviewing the Enlistment Act of 1870, together with the regulations issued under that Act, War Office Circulars, clauses 36 and 183, of 1873, especially as applicable to India, are you of opinion that, in the event of a local force not being employed, any further modifications of existing Acts should be made?

18, 19, 20, and 21. Questions 18 and 19 refer to the royal artillery: I have no remarks to offer; and questions 20 and 21 hardly call for any reply from me.

22. This is fully replied to at page 4, point 9, of my minute of 18th August 1879.

23. I am very decidedly of opinion that no reduction of the number of British troops serving in India should be allowed. The Bombay presidency could certainly not dispense with a single regiment of European infantry; and it has but one regiment of British cavalry at its disposal. As to whether garrison batteries could take the place of field batteries, and field batteries be substituted for horse artillery, I am generally inclined to the opinion that no such change could be made with safety or advantage to the State, as it must depend on the strength of the army and the territories to be occupied.

24. I again refer to page 2, point 6, of my minute of 18th August 1879, for reply to this question; but I may, on further consideration, suggest that the addition of one troop to each regiment of British cavalry and the decrease of one regiment from the Indian establishment would (if one regiment can be spared from any portion of India) possibly tend to some slight reduction of expense; but I think it would be doubtful whether any such very small saving would compensate for the loss of a regiment from the present territorial organization of the armies.

25. I am in every way opposed to the formation of a local European army for India.

26. I am decidedly of opinion that it would be impolitic to alter the present proportion of British and Native troops serving in the Indian empire. The European force is only about one-third that of the Native, including the artillery, with the exception of mountain batteries.

27. I have no remarks to offer on this question, further than what is mentioned at page 3, point 6, of my minute dated 18th August 1879.

## QUESTIONS.

## ANSWERS.

28. Can you suggest any means by which the present cost of supplying British soldiers for service in India can be reduced, without decreasing in any way their efficiency?

In discussing this subject, a fair consideration must be given to the share India should take in support of the general maintenance of the British empire.

29. There is a large staff of assistant adjutant generals and deputy assistant adjutant generals for musketry, regimental instructors and assistant instructors of musketry throughout India. Does not your Excellency consider that regimental instruction in musketry can be carried on by company officers as part of their ordinary military duty, and that the staff for musketry inspection can be largely reduced, the duty of inspection being carried on by generals and their staff, assisted, if absolutely necessary, by a specially trained officer.

30. Is any reduction in the Judge Advocate General's Department practicable by the concentration of work at head-quarters, courts-martial being conducted by officers with the usual allowance for the discharge of this duty, and in very special cases by an officer deputed from head-quarters?

28. This has already been considered at page 4, point 6, of my minute of 18th August 1879.

29. This is a question requiring no reply from me.

30. It will be noticed that, throughout my minutes on army organization, I have objected to any reduction of staff appointments and salaries as a general rule, and I have pointed out the advisability of looking for financial results in reduction of stores, &c. But if there is one department of the army which, in my opinion, might be reduced with advantage, this department is that of the Judge Advocate General. The necessity for such appointment at all is probably the result of complicated military law. The question then arises whether military law could not be very much simplified and confined to purely military offences in time of peace. It is rightly and justly acknowledged that there is no court by which justice (in accordance with military rules) is more honorably administered than by the court-martial; and the guilty soldier as well as the innocent brought before such a court for a purely military offence knows that he is being tried by his peers; honorable gentlemen judging him by common sense, who will take into consideration all his good qualities as well as his bad, and judge him in strict accordance with laws rigidly laid down, from which there is no escape except by the clemency vested in the Commander-in-Chief, the general officer of the division in which he is serving, or the officer commanding his regiment, according to the nature of the court-martial by which he is tried. In times of peace crimes such as drunkenness, insubordination, desertion, making away with his kit, sleeping on his post, are all military offences, with which no court is more competent to deal than the court-martial; and the punishment of these offences, carrying with them as they do overpowering evidence of guilt (otherwise a commanding officer would not send the case for trial), requires no very complicated legal knowledge to regulate the award. The sentence of the court is seldom, if ever, questioned. But, on the other hand, if the offence once takes a more civil character, such as for instance, embezzlement, grave cases of assault, such as firing at a comrade, theft, and other cases where the evidence is not overwhelming, where there is a doubt, when the evidence is circumstantial only, or the case is in any way open to argument and the punishment not very clearly laid down, and when, on account of the seriousness of the charge, a lawyer would probably be called in to defend the accused, the justice dispensed by the court-martial is very open to miscarriage; and the prisoner is likely to escape the penalty in consequence of the legal arguments of his counsel before a court naturally unacquainted with the law in all its ramifications.

But it may be argued that the Judge Advocate and his assistants are purposely appointed to combat the arguments of a skilful lawyer. I am not aware, however, that the officers of this department are, at least on first appointment, selected for any eminent legal acquirements; and even if in course of some years they do acquire a certain legal knowledge, what chance, I ask, would they stand against a professional lawyer, who had made the law the one study of his life?

In cases as above enumerated, then, in time of peace, I would advocate the utilization of the civil power. If such a course were adopted, military law might be so simplified as to require nothing but common sense to deal with it; and the Department of the Judge Advocate General could be very

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## ANSWERS.

31. Is it necessary to retain the allowance now passed to interpreters of British cavalry and infantry regiments? No such allowance is found necessary for batteries of artillery with large Native establishments.

32. Does your Excellency see any objection to the assimilation of the scale of syces allowed to British cavalry. Excluding the horses of the non-commissioned officers, for which one syce each is allowed, the present scale is in Bengal one to two, in Madras one to four, and in Bombay one to three, horses: which of these scales would your Excellency adopt?

33. Might not bazaar sergeants be abolished?

34. (a) Does not your Excellency consider that the present expenditure on punkah-pulling is excessive; are not large reductions possible; and would it not be feasible to reduce the cost of punkah-pulling by resorting to the old system of a fixed allowance per company, &c.?

(b) Would the abolition of khush-khush tatties, except in hospitals, cause any discomfort or risk to the health of the troops?

(c) Can your Excellency suggest any way of reducing the very heavy expenditure annually incurred in the purchase (or manufacture) and repair of barrack furniture, barrack bedding, &c.?

35. Does your Excellency consider it necessary to maintain any reserve of Government horses; and if so, how many; and on what basis should the reserve be calculated?

Should this reserve be attached to corps and batteries, or to one or more depôts?

36. If the former, to what particular division of the army should they be posted?

37. Would your Excellency approve of the reduction of the establishment of horses for horse and field batteries to the war scale laid down in Army Circular No. 186 of 1877, deducting such carts as in India are drawn by bullocks?

38. Can your Excellency suggest any improvements in the constitution and working of the Commissariat Department?

materially reduced, with pecuniary benefit to the State and advantage to the better administration of the laws of the land. Instances could be quoted where the sentence of the court-martial has been quashed by reason of some informality of procedure in cases of serious offence. This could hardly occur in a civil court. In time of war punishment is, of course, summary. I only advocate trial by civil tribunal for what may be termed civil offences during time of peace.

31. If the allowances to interpreters are given as a reward and inducement for officers to become acquainted with the Native languages; and if such inducement is still considered necessary, since the Government ruled that no staff appointment could be held without the applicant qualifying according to a certain standard, then I would advocate the retention of allowance now passed. It is certainly open to question whether the officers who simply pass a certain test, and who thereafter never mix with the Natives, are really fitted in the majority of cases to act as interpreters—a duty which is generally carried on by the regimental kotwal or chowdry.

32, 33, 34 require no reply from me.

35. I think it highly necessary to keep a reserve of Government horses, but am not prepared to enter into any details of the numbers, or the basis on which the calculation should be made. In former years large studs were kept up in India; and these establishments have been abolished within the last few years only. To replace the remount supplied by the late stud depôts, we have, I believe, trusted to Australia principally to supply remounts for our artillery and European cavalry. These horses are usually purchased in Calcutta and Madras in very low condition, and require great care and attention to bring them into proper form. As these horses are purchased, as a rule, at an age quite fit for work, it appears to me that the best possible means of looking after them would be to hand them over to batteries and European cavalry regiments throughout India, where the conditions of the country were such as to allow of plentiful and cheap supply of forage. This would entail but little trouble on batteries and regiments, the proper establishments of ghorawalas or syces being provided for the charge of the extra horses; can by this means first class professional attention would be secured for valuable Government property. In time of war the extra horses could be handed over by each regiment and battery on reaching the base of operations, when they would be ready to supply vacancies in the corps which had taken care of them, or otherwise as circumstances might require. If a depôt is to be established in the Bombay presidency, Ahmednagar would be a good locality.

36. No reply to this is required from me, other than is given to reply No. 35.

37. I need offer no opinion on this question.

38. My opinion on this question generally will be found at page 7, point 13, of my minute of 18th August 1879.

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## ANSWERS.

The points which would appear to require notice are—

- (a) The large supervising staff of the department.
- (b) The number of senior officers of high rank, and with high pay, doing comparatively subordinate and unimportant work.
- (c) The large office establishment kept up with each executive officer in consequence of a want of simplification and unification in the examination of accounts.
- (d) Relative advantages of the contract and agency system of supply.\*
- (e) Expense of the movement of commissariat stores owing to want of supervision and system.
- (f) As to the advisability of having three separate departments for India, each with its own large supervising and office staff.
- (g) The advisability of bringing commissariat duties more within the knowledge and control of the general officer commanding, both in peace and in war.
- (h) Whether it would not be advisable to confine the operations of the Commissariat Department entirely to the issue of consumable stores, taking from it the issue of such things as line-gear, bedding, &c., which do not seem to appertain to it, and which would seem more appropriately to belong to equipment?

39. What are your Excellency's views generally regarding the organization of the transport for the army in India?

The following points suggest themselves—

- (a) As to whether the transport should be under the Commissariat, or organized as a separate department?
- (b) What are the arrangements which your Excellency would propose should be carried out for the formation of a nucleus of a transport department by utilizing existing carriage, such as moveable columns, and without adding to the present cost of these?

How could a system of regimental transport be organized—

- (c) As to the most effectual means of securing the speedy collection of transport in the event of a war?
- (d) Whether it would not be advisable to endeavour to introduce a better and lighter description of cart into India, with a view to the substitution, when possible, of wheeled for pack carriage?
- (e) Whether your Excellency thinks anything can be done to increase the supply and improve the breed of mules?
- (f) Looking to the fact that the supply of camels is believed to be steadily decreasing, can you suggest any means by which that supply can be kept up? Could not elephants be largely dispensed with as army transport?
- (g) Which do you consider it most advisable to use on service,—Government or hired transport?
- (h) Whether you think that, in the event of a Government nucleus being kept up, much of the cost could not be saved by its utilization for the relief of troops and the carriage of commissariat and other stores?
- (i) What should be the organization of a division of transport in war, i.e., as to number of animals, officers, supervising staff, drivers, artificers, and veterinarians?

Points (a) to (e) call for no comment from me; point (f) is answered at page 5, point 9, of my minute of 18th August 1879 (last paragraph); on point (g) I have no remarks to offer; and point (h) is fully replied to in paragraph 2, point 15, page 7, of my minute of 18th August 1879.

39. This is replied to generally by the second portion of point 13, page 7, and following of my minute of 18th August 1879, which touches on the question of army transport. Points (a) and (b) are both fully answered. In reply to point (c), I would remark that, so long as a great transport department is not kept up for army purposes only (a department which I by no means advocate), the natural and most effectual means of securing the speedy collection of animals is through the civil authorities nearest to the base of operations in the first instance, supplemented by animals from a distance as the supply at the base runs short or fails. This must, as a rule, be done through contractors; and as the civil authorities are well acquainted with the means and capabilities of the principal inhabitants of their districts, the best men available will hereby be secured. But the animals once supplied by the contractors, it becomes a matter of the greatest importance that the military authorities should be in a position to receive and care for them, and that the organization of the transport service should be sufficiently completed to ensure the proper enrolment and payment of the drivers or other men employed with the transport animals. As regards point (d), the Maltese cart, used in Abyssinia and lately in the Bolan pass, are highly spoken of; and the city of Bombay itself has an excellent light cart, well suited for transport purposes. Models of these carts could be prepared and submitted, if necessary.

To points (e) and (f) I offer no remarks.

To point (g) I would reply that the amount of transport required for active service, such as the late campaign in Afghanistan, is so great, that to hire transport is synonymous to pressing it from the people of the district from which it is hired; and impressment of the means of transport must lead to impressment of drivers, who naturally (having no interest whatever in the campaign in which they are called upon to serve) render the most unwilling service, and take the earliest opportunity of rendering their animals unserviceable, in hopes of escaping a distasteful duty. This service is frequently so unpopular that, sooner than leave the boundaries of their Native country, the impressed drivers desert, leaving their animals in the hands of the transport authorities, or take them away with them, if not supervised and guarded with the utmost care. Again, compensation must be given for animals hired in case of death or hurt. This very fact of compensation is in itself

\* Vide Financial Review of Commissariat Department, 1877, paragraphs 18, 21, 57, 86, 109, 117, 119, 121, 130, 131, 139, 140, 143, 152, 154.

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an inducement to owners to damage, or even kill, their animals, and is a source of great expense to Government. The hire and consequent impressment of transport thus becomes a real hardship on the people of the country nearest to the seat of war; and the experience of the late campaign will doubtless show the immense difficulties of settling account for this sort of transport. For the above reasons I would recommend that all transport for a campaign be the property of Government. This will induce better care of the animals, which, if properly looked after, will, even in the face of great casualties, prove valuable property to Government at the end of a campaign. When transport on a large scale is really hired without impressment,—if such be possible, which I doubt,—we must take what we can get; whereas, if we purchase, we can pick and choose, and supply willing attendants from other parts of India if necessary.

In reply to point (h), I would say that, although I advocate the formation of a nucleus of non-commissioned officers or conductors for the transport department, I do not see the necessity of Government going to the expense of forming any such nucleus of animals other than is absolutely necessary for commissariat or ordnance purposes and for moveable columns during time of peace. In the late campaign it was not the difficulty of procuring carriage, but the care of it when procured, that proved the stumbling-block. In time of peace, for the ordinary movement of troops, the civil authorities can always supply on hire sufficient and efficient carriage on short notice; as witness that procured for the army assembled at Delhi in 1876, and again in 1877, when, on the latter occasion, not only was transport required for a considerable force, but for the camps and retinue of every Native prince and noble of note in the empire. Of course, the numerous railway lines greatly aided the assemblage of the great multitude at Delhi; but, apart from this, the transport hired for the occasion must have been enormous. Hire for this description of service is sufficiently popular, as it entails no personal danger or hardship, and the pay is certain.

On point (i) I have no remarks to offer.

40. Does your Excellency consider that the Military Works Branch of the Department Public Works should be brought more directly under the military authorities than at present; and could not its organization be so arranged as to make the engineer department more efficient for war? Or should the Military Works Branch be abolished, the ordinary works being constructed and maintained by the ordinary Public Works staff; a special establishment being appointed, under the Military Department, for any large works requiring peculiar knowledge or skill?

40. There is no separate Military Works Branch in the Department Public Works in the Bombay presidency, nor do I recommend that any such branch should be formed. As the department is at present constituted, I do not think that it could with any advantage to the State be brought more directly under the military authorities; but I am of opinion that the engineer department might to some extent be made more efficient for warlike purposes by employing more sappers and miners on the public works, provided their services could be spared in time of peace.

41. In what way can your Excellency suggest the reduction of the expenditure of the Military Works Branch, Public Works Department?

41. I answer point (a) of this question as follows. The expenditure for each year necessary for the completion of works for the accommodation of troops and the defences of the empire is practically limited to a fixed annual grant, and the completion of works is spread over a series of years. The grants may vary somewhat year by year; but they are never sufficient to complete works very expeditiously.

(a) Could not the expenditure for each year be limited to a fixed annual grant, and the completion of the works necessary for the accommodation of troops and the defence of the empire be distributed over a series of years?

(b) What is your Excellency's opinion of the barrack accommodation in India generally? Are not many of the barracks constructed in late years designed on a most extravagant scale; are these new barracks any more comfortable or conducive to the health of the occupiers than many of the older and cheaper single-storeyed barracks?

(c) Might not many of the barracks throughout India be constructed in a more economical style; and might not many of the troops on the hills be housed for many years to come in cheap huts or cottage barracks?

(d) Could not the ordinary repairs of completed barracks and the construction of barracks on standard plans be well left to the Local Government, subject to inspection by officers employed under the Government of India?

(e) Might not European soldiers be more frequently employed in public works, especially in the construction of their own barracks, on the hills and the roads leading to them?

Point (b) is replied to thus. The barracks generally, and more especially those of recent construction in which sanitary requirements have received closer attention, are decidedly good. I cannot think that the accommodation can be considered "most extravagant," although it is perhaps more costly than absolutely necessary. Indeed, I would deprecate any such expression as "most extravagant" as being stronger than the case requires, and as being likely, if accepted, to prejudice the cause of those improvements which are essential to the welfare of the British soldier in India. The barracks are certainly more comfortable and presumably more healthy than the old style of accommodation. At the same time I am inclined to think that the troops, unaccustomed to any great amount of comfort at home, would find all the comfort they required in single-storeyed, and consequently cheaper, barracks.

The construction of barracks mentioned in point (e) is being carried out in this presidency, for instance at Poona,

## QUESTIONS.

## ANSWERS.

42. Do you consider that a clear and more appropriate classification of the subjects dealt with in each department of the staff and the army could be adopted; and if so, would it not add to efficiency, and tend to the reduction of labor?

43. Do you consider that the amount of correspondence and returns on the army could be reduced; and would you approve of a Committee to consider this question?

44. Do you consider that the system of payment, audit, and army account is susceptible of improvement; and what alterations would your Excellency suggest?

45. Is your Excellency in favor of station (or general) hospitals in large cantonments, and field and base (or general) hospitals in the field, in place of regimental hospitals?

46. Do you think it desirable that the power formerly granted to commanding officers of Native regiments to dismiss men of bad character or inefficient for service should be restored?

47. (a) What changes, if any, would your Excellency recommend in the constitution, organization, and equipment of the Native cavalry and infantry?

(b) Is your Excellency in favor of the substitution of pioneer regiments for line regiments; and could more Goorkha regiments be raised?

48. In the ryotwari districts, or in other parts of India, would grants of waste lands, revenue-free for their lives, be acceptable to Native officers and soldiers in lieu of part of their pension?

49. Would it not be desirable to alter the designations of *ressaldars*, *ressaidars*, and *subadars* of the Native army, who now command troops and companies, to that of captain, and *jemadars* to that of lieutenant?

50. For the education of cadets of good family for direct commissions as Native officers, would it not be desirable to afford them the means of instruction in military schools, say one at Roorkee for Eastern, and one at Poona for Western India, where the fees should be sufficiently high to ensure only gentlemen of a superior class entering their sons, and to which nominations should be made by the Viceroy?

51. To what extent would you recommend the grant of commissions otherwise than by promotion from the ranks; and what should be the attainments qualifying for such nominations?

52. With reference to the comparative small amount of pension to pay of Native officers, and to afford them greater inducements to retire, would it be desirable and acceptable to them to establish a system of deferred pay by deduction of a small percentage, say 5 per cent., from the pay of all Native officers hereafter promoted, to amass to individual credit, with interest say at 4½ per cent. The sum to be handed over on retirement, or to his heirs at any time in case of his death, and to be inalienable by any authority, except by being confiscated to the State in case of cashiering.

53. Has your Excellency any suggestions to make with a view to alter or improve the terms on which Native officers and soldiers can obtain pension, or to alter the periods after which Native officers and soldiers can obtain pension on medical certificate or otherwise?

with due regard to economy. In the Bombay command we have no hill stations answering to those of the Bengal or Madras presidencies, although we have sanatoria at Purnahar, Asirgarh, Mount Abu; but these places accommodate a few invalids only. The hills of Mahabaleshwar could not be used by troops on account of the excessive rainfall during the monsoon months.

In answer to point (d), I would remark that in this presidency the repair of completed barracks and the construction of barracks on standard plans are carried out under the orders of the Local Government through its Public Works Department. The standards are usually supplied by the Government of India.

Point (e).—I do not think soldiers in the plains could be more frequently employed in public works to any extent beyond their own workshops.

42, 43, 44, 45, 46, 47 (a and b).—I have no remarks to offer on these points.

48. In my opinion grants of waste land revenue-free for life would not be acceptable to Native officers and soldiers in part payment of their pension.

49. This calls for no remark from me.

50. If, on enquiry, it be found that commissions as Native officers would be acceptable to young Native gentlemen of family, I would certainly advocate military schools being established for their education; but I am not at present prepared to offer an opinion as to whether such a step would be acceptable, as it would, at least at first, entail the close comradeship with men of a much lower class. For the most part the present holders of Her Majesty's commission, however estimable in themselves as loyal servants to Government, might not, as a rule, be looked upon as eligible comrades for young men of the Native nobility and gentry.

51. For reasons given in reply to question 50, I am not at present prepared to offer an opinion.

52. I do not myself think that the Native officers of the army would view with favor a system of deferred pay by which they would suffer an immediate decrease of even 5 per cent. of their salaries, with the prospect of receiving it in the future with the addition of 4½ per cent. per annum as proposed.

53, 54, 55, 56, 57, have all been replied to generally in my minute on "Reserves for the Native army," dated 15th August 1879.



## QUESTIONS.

## ANSWERS.

54. Do you consider that, under a proper system of concentration and distribution at important centres, the strength of the present Native army in India can be reduced, should it be resolved to create a system of reserves supplying extra men to meet a call for service, say, to an extent equal to half the strength of the present Native army?

55. Would it be advantageous in your Excellency's opinion to establish such reserves; and if so, on what principle?

56. Do you consider that the Home or any Continental system of reserve force could, with alterations, be adapted to the Native armies of India?

57. If you object generally to the creation of extra reserve forces of Native troops, but having regard to the fact that annually a large number of men is transferred to the pension list, and that the cost for the total number of pensioners, viz., 63,178, is Rs. 46,08,539 per annum,\* do you see any reason why the present system of invalid pensioning after 15 years' service should not be abolished, and a limited number of effective men be passed to a reserve on reserve pay after, say, no less than 8 years' service, non-effectives being at all times examined by a medical board, and struck off with gratuities equal to one month's pay for regimental or reserve service, as the case may be, for every year's service?

In such an organization the men of the reserve could be retained under the immediate control of their own regimental officers, and be liable, during a fixed period, to be called out at any time in case of war, to join their own regiments and for one month's annual training at the depot; after which period they might pass into a second reserve, liable only to be called out for garrison duty in case of war, until entitled to reserve pension.

On the score of efficiency and economy, and to afford the means of maintaining regimental depôts and such reserves as have been proposed above, might it not be advisable to increase regimental strength from 600 to 800 sepoy, with a corresponding reduction of the number of battalions in the proportion of 4 to 3?

58. Would it be possible to utilize the men of the sappers and miners and the pioneer corps, who may have passed to the reserve, in arsenals, depôts, railways, and other workshops?

59. Would you, in like manner, approve of the conversion of Native cavalry corps into regiments of 4 instead of 3 squadrons, with a corresponding decrease in number of regiments from 4 to 3, a squadron commander and officer being added to each corps?

60. Should the Punjab and Sind Frontier Forces be placed wholly or entirely under the Commander-in-Chief in India?

61. What are the communications the construction of which appears to be of the first moment from a military point of view?

58. If it be found practicable and essential to form a reserve for the Native army, I think the services of men of the sappers and miners and of pioneer corps on passing into the reserves might be profitably used, as proposed, i.e., in arsenals, depôts, railways, and workshops generally, provided vacancies can be found without disturbing existing interests.

59. In replying to this question, I answer as regards the Bombay army only. In Sind, for instance, where we have three regiments of cavalry permanently stationed on the frontier, the substitution of two regiments or eight squadrons for three regiments or nine squadrons might perhaps be carried out; but I would not be prepared to accept the services of three regiments of cavalry of four squadrons each for four regiments of three squadrons each in other parts of the presidency, nor would I be prepared to reduce fighting strength, for reasons pointed out in my minute of the 31st July 1879, page 10 and following, "General military requirements of the Bombay presidency."

60. A reply to this question will be found at page 6, point 11, of my minute of 18th August 1879.

61. For reply to this question, see my minute of 18th August 1879, page 9, point 15, where it is answered in full.

RICHARD TEMPLE.

### Military occupation of Belgaum by the Bombay Army.

#### *Minute by the Governor of Bombay, dated 17th September 1879.*

A proposal has, I understand, been made to the Army Reorganization Commission to the effect that the Bombay army should relieve the army of Madras of its military charge of Kamptee, Jubbulpore, Raipore, and Saugor, and that the territory in the heart of the Southern Mahratta Country, now held by the Belgaum brigade of the Bombay army, should pass to the military care of the Madras army.

If it should appear expedient to the Supreme Government that Bombay should occupy the country now garrisoned by the Nagpore force at the stations above enumerated, the Bombay army will, I am sure, undertake the task cheerfully, and will be proud of the charge; but I would strongly represent to the Government of India the undesirability of disturbing the present territorial distribution of this army, so far at least as concerns the Belgaum brigade.

My reasons for deprecating any such change in the Belgaum brigade are briefly as follows.

North Canara was not many years ago given over to the Civil Government of the Bombay Presidency for political and territorial reasons; and Belgaum and Dharwar are the only military stations within reach of that territory, should armed assistance ever be required.

It is manifestly convenient that the territory of a Local Government should be garrisoned by its own troops. In event of trouble, it is very inexpedient that the Local Government, which is responsible for the safety of the country placed under its immediate control, should be dependent on another Local Government at a distance for the troops necessary to quell disturbance in its own territories, and for which it alone is responsible.

It might perhaps be argued that the very inconvenience here represented has to be incurred by the Government of India, by the fact of Bombay troops holding Rajputana and Madras troops guarding the territories of the Nizam outside of their own territorial divisions. But the cases are not analogous; for Rajputana and Hyderabad are Native States, governed as it were by Residents and Agents to the Governor-General; and the troops guarding these territories are from one army or the other entirely, and are not in any way mixed up with the army of another presidency, as would be the case if the military charge of the Southern Mahratta Country were transferred to the army of Madras.

Again, political officers, be they Resident, Chief Commissioners, or Agents to the Governor-General, have no local forces under their immediate orders, and consequently look to their military requirements being supplied by the Supreme Government. For these reasons, they experience no inconvenience in the arrangements as they at present stand.

But the general inconvenience of having Bombay territories garrisoned by Madras troops would be specially aggravated in the case of Belgaum. For the cluster of Native States called the Southern Mahratta Country and the British districts of Belgaum and Dharwar, often called the Southern Deccan, constitute, in a military and political point of view, one of the most important parts of the Bombay presidency, and one of the very parts in which trouble is at all times most likely to arise, and in which it is almost certain to arise in event of any general disturbance in India. This is one of those divisions of the country in which the Mahratta power had a basis, in which the revolutions and counter-revolutions connected with Mahratta affairs inured the people to hardships, and imbued them with a martial spirit. A long series of petty wars occurring in a hilly country rendered these people turbulent by nature. Ever since the commencement of British rule, in the early part of this century, this part of the country has been periodically a source of anxiety. The Mahratta existence having been one long struggle for empire in India from the days when Sivaji revolted against the Mahomedans of Beejapore, to the day of Assaye when the Mahratta confederation was vanquished, and to the day of Kirkee when the central authority of the Peishwas was finally extinguished, that same Mahratta spirit still survives under British rule to this very time in Western India. This is well known to all experienced officers now in Western India; and it will be a cause of insecurity to British rule if ever unfortunately this consideration were to be forgotten or overlooked. After the first Afghan war in 1842-43, there were disturbances in the South Mahratta Country, distinctly traceable to the popular impression that British power had been severely stricken. Similarly, in connexion with the Indian mutinies of 1857-58, troubles were excited throughout the Southern Deccan; and Belgaum itself was threatened. Rebel emissaries tried to corrupt our sepoys, our feudatories, and our subjects. The idea was actually fostered that history would repeat itself, and that like as the Hindu uprising against the Moguls began in the Mahratta country, so an uprising of all India against the English should begin in the same country. The ruler of one Native State was hanged for the murder of one of our political officers. The ruler of another Native State was confined for some time on a charge of treason.

It is not to be doubted that if ever the Bombay army shall be required to repress disturbance in the interior of the Bombay presidency, then Belgaum is the most likely scene for such service. In such event the Local Government, instead of relying on its own troops and its own officers, would have to rely on the troops and officers of another Government. If reinforcements had to be sent (as would most probably be the case), questions would arise as to whether they should be sent from the Bombay side or the Madras side. Various conflicts of authority might arise. The Bombay Government could not expect the same absolute obedience from the officers of another Government as from its own, and would, in many ways, be placed at a considerable disadvantage.

And the above arguments will hold equally good whether the Bombay army remain as at present under a presidential Commander-in-Chief, or whether it be constituted an army-corps under a lieutenant-general. The commander of the army-corps will stand in much the same relation to the Local Government as the presidential Commander-in-Chief now does.

Further, I would call attention to the fact that Belgaum is distant 194 miles from Bellary, the nearest military station of the Madras army, and is connected with it by a fair-weather road only, a road almost impassable in the rainy season; whereas it is in communication with Poona and Satara, military stations of the Bombay army, by a trunk road, metalled and bridged throughout.

Again, there is indeed a prospect ultimately of a railway between the Southern Deccan and Bellary. But there is equally a prospect of a railway in the Eastern Deccan to connect the Southern Deccan and the Central Deccan near Poona.

If necessary, the Bombay army, even as at present constituted, could, as a preferable alternative to relinquishing Belgaum, hold Kamptee, Jubbulpore, and Saugor, in addition to Belgaum. If this should be objected to on territorial grounds, then the Madras army might keep Kamptee, which they have always held heretofore, the Bombay army taking Jubbulpore and Saugor, if such should be the desire of the Government of India. In other words, let Madras keep Kamptee (Nagpore) as heretofore, Bombay keeping Belgaum; thus a double change would be avoided, and a transfer calculated to embarrass Bombay would be averted.

## I.

## ADMINISTRATION AND ORGANIZATION.

## Replies by His Honor the Lieutenant-Governor of the Punjab.

## QUESTIONS.

## ANSWERS.

1. What, in your Excellency's opinion, should be the full war establishment of the army of India calculated under the two heads—

(a) The number of troops that India ought to be able to place and maintain in the field for service whenever required?

(b) The garrisons and reserves to be maintained?

2. What, in your Excellency's opinion, should be the organization of the army of India? Is it necessary, in the present circumstances of the country, to maintain the three presidential armies under three separate Governments and three Commanders-in-Chief with three large staffs and separate departments?

3. Could not all the advantages of separate armies be secured with a great increase of efficiency and economy by forming the entire army of India into one army under one Commander-in-Chief, and dividing it into four army-corps? Each army-corps to be under the command of a lieutenant-general, and to be entirely complete and self-contained in respect of organization, arms, and equipment. The lieutenant-general to be vested with complete powers of control, and to be responsible for the appointment of all regimental officers, subject only to the confirmation of the Commander-in-Chief for India in respect to the nomination of officers commanding regiments. The officers of all the army-corps to be equally eligible for service on the staff of the army. The army-corps to be territorial and localized, one in the north, one in the south, one in the east, and one in the west. The army-corps of the south and west to be as far as practicable recruited from the districts from which the present armies of Madras and Bombay are now recruiting; thus maintaining four armies distinct in race, religion, and language, but so organized as to be practically in a state of thorough efficiency and readiness for action in any direction in which the army of India may be called upon to undertake separate or combined operations under the Commander-in-Chief in India.

What should be the strength of each army-corps?

4. If such a formation of the army were adopted, would it not, in your Excellency's opinion, be possible to carry out a very material reduction in the staffs and departments, placing at the same time at the disposal of the lieutenant-general commanding army-corps a staff so efficient and complete as to enable him to relieve the Commander-in-Chief of India of much unimportant work which now comes before him?

5. Supposing such an organization to be adopted, what proportion of each army-corps should be prepared for mobilization and maintained in a state of readiness to take the field at short notice? What should be the relative proportion of each arm of the service in such active portion of each army-corps?

6. Setting aside historical sentiment, and looking to the relative importance, the population, and the wealth of the various Local Governments of India, is there any more reason why the armies of Madras and Bombay should at the present time be under the Local Governments of Madras and Bombay and under local Commanders-in-Chief, with separate departments for every branch of military administration, than there is that the same system should be followed in the Lower Provinces of Bengal, the North-Western Provinces, and the Punjab?

7. As a matter of fact, if a large reserve for the northern armies is to be maintained, is it not the duty of Government to see that this reserve is formed of the most efficient fighting men whom it is possible to procure and to maintain

1, 2, 3, 4, 5. Without any special knowledge of the military requirements of other parts of India, and only judging from what is suitable for the Punjab, His Honor thinks there would be no difficulty in organizing the army of India into four army-corps, as suggested in these questions.

In a previous communication to the President, Army Commission (No. 406, 19th August), His Honor has stated that this province will require—

Artillery	{	10 batteries of British horse, field, or mountain.
		6 batteries garrison, British.
		4 batteries mountain, Native.
Cavalry		13 regiments of Native.
Infantry	{	11 regiments, British.
		30 regiments, Native.

This force, with the addition of four companies of sappers, one pontoon train, and one telegraph troop, might form an army-corps for the Punjab provinces. Its strength would be about 40,000 men, with eighty-four guns.

The other three army-corps might on the average be equal in strength, giving for the army in India a total force of 160,000 men. The component parts of each army-corps might be varied to suit the different localities and requirements.

In the Punjab His Honor would advocate that carriage be maintained so as to put 15,000 men in motion at a day's notice.

In the other three army-corps perhaps it would be sufficient to maintain for each a sufficient amount of carriage to move 10,000 men.

Thus we should have 45,000 of all arms ready for immediate service; and this force might be followed by another army of 45,000 men in three months. That is to say, out of the 160,000 men in all India, 90,000 should be kept for service in any part of India, and 70,000 should be kept to garrison certain obligatory positions, which must at all times be held.

His Honor is aware that some exception may be taken to the composition of the army-corps for the Punjab. It may be urged, and perhaps correctly, that it is wanting in an essential particular of British cavalry, in order to render it complete and as perfect as an army-corps can be made; but in dealing with this question, His Honor has limited himself to the consideration of what is the smallest number of troops required for the maintenance of order in the Punjab, and the protection of the province against foreign aggression. He has not alone based his recommendations on what may be considered the best, the most perfect army-corps to have.

If the means at the disposal of Government were unlimited, His Honor would most assuredly add some British cavalry to each army-corps; but as economy demands the lowest possible numbers with the lowest possible expenditure, he has omitted this branch of the service, because he thinks it is not absolutely necessary for the maintenance of our empire in India, and because the Native cavalry now in our ranks are more than equal to any cavalry which is likely to be brought against them.

6. His Honor thinks there is no apparent reason why separate departments of military administration should be kept up for each presidency.

7. Assuming that provincial army-corps are granted, His Honor thinks that recruits should be drawn from the best fighting classes within their respective provinces. His Honor is opposed to having one recruiting-field for the whole of the

## QUESTIONS.

with due regard to the admitted necessity of keeping up armies of different races and religions, and with due regard to the safety of the empire?

Does your Excellency look upon the Madras and Bombay armies in their present organization as constituting the most efficient reserve for the armies of Upper India?

9. Is your Excellency aware of any difficulty in obtaining recruits for the army of a good class of healthy strong young men of the agricultural population, physically qualified to perform the duties of a soldier?

12. Could not the duties of the Native army be very materially decreased by a general concentration of troops in large centres in the neighbourhood of railways, thus abolishing all small cantonments and outlying and isolated stations?

13. Would not this arrangement enable the officers commanding army-corps to make a much larger number of men available for service, and justify a very considerable reduction of troops in some parts of the country; and would it not enable the discipline, exercise, and instruction of the troops to be more effectively carried on, and render the formations of camps of exercise more feasible?

25. In your opinion, is it desirable, on the score of economy and efficiency, to substitute for Indian service a local British force in place of a portion of the Home army?

34. (a) Does not your Excellency consider that the present expenditure on punkah-pulling is excessive; are not large reductions possible; and would it not be feasible to reduce the cost of punkah-pulling by resorting to the old system of a fixed allowance per company, &c.?

(b) Would the abolition of khns-khns tatties, except in hospitals, cause any discomfort or risk to the health of the troops?

(c) Can your Excellency suggest any way of reducing the very heavy expenditure annually incurred in the purchase (or manufacture) and repair of barrack furniture, barrack bedding, &c.

## ANSWERS.

armies in India. It will be necessary, for political reasons, to prevent a preponderance of one nationality. The fighting classes are scattered all over India, and from these classes alone should enlistments be made. The lower castes, such as mehters and chamars, musicians, should not be admitted into the ranks.

9. There is no difficulty in obtaining recruits in the Punjab.

12 & 13. Undoubtedly; and this has been proposed in letter No. 406C., dated 19th August 1879.

25. It is most desirable in His Honor's opinion to raise a local British force for service in India, on the grounds of health and economy in transport. His Honor believes that in a local regiment habits are formed which render men better able to resist the effects of climate; and recruits joining such regiments readily adopt the customs which the older soldiers follow, and thus they are more likely to keep their health.

Economy would be effected by avoiding the necessity of sending whole regiments to and from England. Men should be enlisted for long periods of service, and facilities might be afforded to a certain number of men to obtain long leave to England.

His Honor is not prepared to advocate the application of this principle to artillery, as there might be difficulties in keeping the officers trained up to the improvements of the day.

34. (a) The present expenditure on punkah-pulling is very great, and the effect on the comfort of the men small, as the service is insufficient. A few punkahs, well pulled, would give better results. His Honor would limit punkahs during the day to the day-rooms, or even to a portion of the day-rooms only. The number of night-punkahs should be reduced, so that the number given to one coolie to pull should not exceed his strength; and the men's beds might be massed under the punkahs, even at the risk of spoiling the symmetry of the barrack-room arrangements. Such men as liked should be allowed to sleep outside during the hot winds.

(b) Tatties, as worked in European barracks, are, His Honor believes, a delusion. He would allow one day-room per company (say the reading-room) being cooled by a well-arranged system of tatties, placed under the control of a man selected from the company.

The men would thus have a well-cooled room to sit in, if they choose. His Honor would stop all tatties in the bed-rooms as a useless expense.

By concentrating the tatties under supervision, one room could be fairly cooled at a quarter of the present cost; and he feels convinced this curtailment of expense would not affect the comfort or health of the troops.

(c) Full half the damage done to barrack furniture is from the continual shifting. The furniture is lifted, carried out, and *dropped* instead of being put down gently. In permanent barracks the furniture should be fixed as far as possible. For instance, the mess tables should be on cast-iron standards, screwed to the floor; and all heavy furniture should be fixtures likewise.

In fact, the furniture in barracks should be treated as far as possible as it is treated in large schools in England.

The moveable furniture, particularly that on "legs," should be better made and of better wood. The cheap wood used in Upper India (usually of the fir kind or deodar) is not suited to stand the knocking about the articles get. A better kind of wood should be used for those parts of the furniture

## QUESTIONS.

39. (b) What are the arrangements which your Excellency would propose should be carried out for the formation of a nucleus of a transport department by utilizing existing carriage, such as moveable columns, and without adding to the present cost of these?

How could a system of regimental transport be organized?

(c) As to the most effectual means of securing the speedy collection of transport in the event of a war?

(g) Which do you consider it most advisable to use on service,—Government or hired transport?

## ANSWERS.

most liable to injury, and it should be well seasoned. Better workmanship is also necessary.

This will undoubtedly increase first cost; but it will largely save in repairs, in which by far the greatest part of the money goes.

39. (b) In all regiments of the Punjab Frontier Force (infantry) Government carriage is maintained sufficient to move a wing of a regiment with tents, but only sufficient to move the whole regiment at a day's notice without camp equipage. This system should be applied to all those regiments in the Punjab which are likely to be called upon to move at short notice. Some increase to the carriage establishment is considered necessary, more especially for the additional supply of ammunition which is now carried since the introduction of sniders. All ammunition should be carried on mules, which can accompany a regiment into action. His Honor would particularly advocate that a certain number of mules be sanctioned for each cavalry regiment armed with snider carbines for the carriage of the ammunition. His Honor does not deem it necessary here to enter into details, but merely to record his conviction that the principle here urged is sound.

He is fully impressed with the importance of maintaining regimental carriage, and would insist upon each regimental officer keeping up a certain amount of carriage. The officers should purchase the animals, but Government should feed them.

By this system a regiment is ready for immediate service. The cattle are looked after by the officers without any special payment or remuneration; and in most infantry regiments of the force, they (the officers) evince a constant interest in the animals, and take some pride in keeping them in good condition, and both officers and men become acquainted with the treatment of baggage-animals, their loads, and their requirements as to food.

His Honor sees no reason why, in times of peace, these cattle establishments should not be utilized, under a certain amount of discretionary authority of the commanding officers, in earning some money to pay for, or help toward paying for, their keep.

(c) and (g) If a system of regimental carriage were organized, the requirements of a transport department would be materially lessened. His Honor thinks that the transport department should be separate from the commissariat or supply, and that all animals required for a long campaign across the border should be purchased by Government and looked after by a body of competent officers. Up to the base of operations on the border, if operations are taken out of British India, as in the present campaign in Afghanistan, the Lieutenant-Governor would endeavour to work the carriage arrangements through contractors; but if they failed, he would employ hired cattle, always engaging to purchase at once any animals required to cross the border line.

His Honor can suggest no cheaper way of collecting carriage than that followed during the late and present campaigns, *viz.*, through civil officers. It seems to His Honor very necessary to urge that whenever cattle are hired and the owners are called upon to perform duties involving more than ordinary risk, to which all carriers are liable, the Government should in a liberal spirit declare under what circumstances compensation for losses will be given; and having declared this, that some officer or officers on the spot should be authorized to pay (or to give certificates for payment of) whatever compensation may be considered to be due. Some such rules are, in His Honor's opinion, very necessary, as otherwise the owners of cattle are put to much loss, and are thereby deterred from maintaining a supply for future contingencies.

It may also be necessary to pay some retaining-fee or premium to the owners of animals, on condition of their being ready to supply a certain number of animals.

The cost of any system under which Government keeps up baggage-animals for transport may be much reduced if the animals, when not required for military purposes, are used on hire for the ordinary traffic of the country.

## QUESTIONS.

(d) Whether it would not be advisable to endeavour to introduce a better and lighter description of cart into India, with a view to the substitution, when possible, of wheeled for pack carriage?

(e) Whether your Excellency thinks anything can be done to increase the supply and improve the breed of mules?

(f) Looking to the fact that the supply of camels is believed to be steadily decreasing, can you suggest any means by which that supply can be kept up? Could not elephants be largely dispensed with as army transport?

(h) Whether you think that, in the event of a Government nucleus being kept up, much of the cost could not be saved by its utilization for the relief of troops and the carriage of commissariat and other stores?

(i) What should be the organization of a division of transport in war, i.e., as to number of animals, officers, supervising staff, drivers, artificers, and veterinarians?

## ANSWERS.

(d) Where roads are fairly good, it certainly appears desirable to introduce carts of all descriptions; and any light cart suited to draught for ponies and mules would be used with undoubted advantage.

The ekkas of this country can travel over very indifferent roads, and are admirably adapted to the pony of the country; on good metalled roads they go great distances daily. There is no reason why carts with no greater breadth than that of the ekka, and built much on the ekka principle, should not succeed, especially for work on the lines leading to the base of an army or on the main lines of an advance.

But for the general traffic of the country the introduction of carts must depend entirely on the roads. It is believed that an ekka will carry 6 maunds a day for a distance of 20 miles over a hard road and 12 miles over a fair road.

(e) His Honor considers that the supply of mules has increased very largely of late years, owing to the large prices which good mules bring at all the fairs in the Punjab. The Local Government has for years past provided good donkey stallions in many districts of the Punjab; and His Honor thinks that this system should be continued, and that the numbers of donkeys should be increased as far as practicable. There is no better mule than the Punjab-bred mule by a Bokhara donkey.

His Honor would advocate a system of allowing commandants of all the mountain batteries to maintain a reserve of mules to an extent of 25 per cent. over strength, and that this reserve should consist of young mules in the following proportion:—

One-third of the reserve should be 4 years old.
"                  "                  "                  "                  3 years old.
"                  "                  "                  "                  2 years old.

Such a system would enable the battery officers to purchase mules at two years old, when they can be purchased at comparatively low rates. These animals would be attended to by the battery establishments without extra charge as attendants, so long as the twelve additional drivers are maintained with batteries.

(f) His Honor is not aware of the grounds on which it is stated that the supply of camels is decreasing. As far as concerns the Punjab, the Lieutenant-Governor thinks that in January 1878, or before the Afghan campaign of 1878, there were in the Punjab as many camels as in any other previous years since the annexation of the province.

His Honor can suggest no better plan than that previously mentioned in answering question 39 (e) and (g), of giving a retaining-fee to owners of carriage, in order to ensure a supply of this class of animal.

(h) It is probable that during five months of the year, when reliefs are carried out, all the Government carriage would be brought into use, so that the carriage maintained by Government would be utilized to a certain extent. During the hot season a certain portion of carriage might be hired out, and worked on those lines where the general traffic of the country is extensive. For instance, on the line from Umballa to Simla a well-appointed transport train working at reasonable rates would always find full employment. Again in every large town in the Punjab it is possible to obtain contracts for the conveyance of goods to some distant place at maundage rates; and the Government cattle, under certain restrictions and a proper system, might advantageously be used on such work.

(i) There is one portion of this question which suggests the mention of an existing difficulty. There is a great scarcity of Native salubris, or veterinarians.

Diseases of cattle, horses, and camels are very common in India; but there are very few Natives who understand the treatment of these animals in disease. It is very desirable that schools for training Natives in veterinary practice should be established. Men so trained would be employed largely in the districts of this province, and would provide a supply of men who could be most usefully employed in time of war.

## QUESTIONS.

40. Does your Excellency consider that the Military Works Branch of the Department Public Works should be brought more directly under the military authorities than at present, and could not its organization be so arranged as to make the engineer department more efficient for war; or should the Military Works Branch be abolished, the ordinary works being constructed and maintained by the ordinary Public Works staff, a special establishment being appointed, under the Military Department, for any large works requiring peculiar knowledge or skill?

41. (a) Could not the expenditure for each year be limited to a fixed annual grant, and the completion of the works necessary for the accommodation of troops and the defence of the empire be distributed over a series of years?

(b) What is your Excellency's opinion of the barrack accommodation in India generally?

Are not many of the barracks constructed in late years designed on a most extravagant scale; are these new barracks any more comfortable or conducive to the health of the occupiers than many of the older and cheaper single-storeyed barracks?

## ANSWERS.

40. His Honor thinks that the Military Works Branch of the Public Works Department should be placed directly under the Military Department of the Government of India, with the Inspector General of Works as the executive head of the branch.

But His Honor thinks that this branch might be reduced to the number of officers sufficient to undertake the construction of original military works, such as arsenals, fortifications, or new cantonments. After cantonments have been constructed, and the only work required consists of maintenance, or the reconstruction or alteration of a barrack, His Honor sees no reason why all such work should not, as formerly, be entrusted to the ordinary Public Works staff attached to each Local Government. His Honor is quite sure that this would lead to a vast economy, as at present the systems in vogue give to the higher supervising officers duties to perform over an extended area; and it may happen that two superintending engineers meet at the same station, one to supervise the repairs of a barrack, and the other the repairs of a kutchery.

In regard to the construction of large military works, some separate officers are doubtless needed; and the officers of this branch His Honor would place under the Government of India, Military Department, because in that department the consideration of the style, size, and cost of barracks is practically entrusted. The Military Department settles the main points on which rests the cost of housing the British soldier, such as the superficial and cubical space to be allowed to each man, the running feet of wall to be allowed to each bed, and the number of day-rooms allowed to each company.

41. (a) Undoubtedly the expenditure could be limited as stated in this paragraph; but such limitation is not reduction of expenditure at all, only spreading it over a greater series of years.

(b) In discussing this question, it must be remembered that a double-storeyed barrack gives double the accommodation of a single-storeyed barrack covering the same area; so that, as long as the double-storeyed building does not cost more than two single-storeyed ones, it is not a more expensive style of building.

Practically it is found to cost about nine per cent. more; but there are certain advantages to be set against this, so that really it makes little difference in point of expense whether a set of barracks are designed as single or double storeyed buildings. As to the buildings being designed on an extravagant scale, as long as the present superficial area, cubic space, and running feet of wall are laid down for the soldier on the present scale, the barracks must continue to be designed as they have been. It may not perhaps be understood that the space given to a soldier in superficial and cubic feet is a fixed unit, unalterable by the Public Works Department, whose functions are limited to carrying out the orders it receives from the Military Department, and the dimensions of a so-called "extravagant" barrack only so many multiples of that unit according to the number of men it has to contain.

With the Military Department lies the power of decreasing this unit; but till it is decreased, no saving need be expected in the cost of housing the European troops.

If the entire control of the funds now expended by the Military Works Branch was vested in the Military Department of the Government of India, that department would have a stronger interest in making the money go further; and doubtless many superfluities and exerecences would be lopped off the accommodation now given to a British regiment.

His Honor considers that the question of comfort and health depends on the climate and situation. Barracks for stations such as Peshawar and Rawal Pindi should not be designed on the same lines as for those required in Cawnpore or Bengal. The extremes of climate in parts of Northern India require a differently planned barrack to that for other parts of India near the tropics. It seems to His Honor that much of the criticism to which the barrack construction has been open is due to a too rigid adherence to uniformity in

design. An instance of the difficulty of providing a building to contain a large number of persons, which shall be suitable to all extremes of climate, is found in the jails of this province. During the hot weather a large number of the prisoners sleep in the open air. No ventilation that can be given is sufficient to enable them to sleep inside in comfort, whilst in winter more than one-half the ventilation that is given during the temperate seasons has to be closed.

(c) Might not many of the barracks throughout India be constructed in a more economical style; and might not many of the troops on the hills be housed for many years to come in cheap huts or cottage barracks?

(c) His Honor believes that barrack construction can be made cheaper by reducing the space allowed to each soldier, according to the climate. For troops in the hills, the hut barracks are undoubtedly more economical, whilst they fulfil all the essential requirements. His Honor believes that the style of barracks lately constructed at Jutogh is, as a permanent style of building, as good as is necessary, whilst it costs Rs. 2-10 per square foot, against Rs. 6 per square foot for permanent barracks in the plains.

His Honor also thinks that much saving can be effected in using cheaper materials in out-houses, such as cook-rooms and privies; and he believes it would be of advantage in a sanitary view to make such buildings less permanent, in order that, when the ground which they occupy becomes defiled, the sites may be changed.

(d) Could not the ordinary repairs of completed barracks and the construction of barracks on standard plans be well left to the Local Governments, subject to inspection by officers employed under the Government of India?

(d) Ordinary repairs and maintenance of completed barracks can be done by Public Works Department under Local Governments. New constructions in barracks, fortifications, or arsenals should be entrusted to the Military Branch, if the amount or extent of work is considered sufficient to engage the services of one executive engineer officer. If such an officer be placed over such works in any station, he should at the same time take charge of the repairs and maintenance of all other military buildings in that station. On the other hand, if the original work is small in extent, and not sufficient to require the services of one officer, it should be undertaken by the executive officer of the province.

(e) Might not European soldiers be more frequently employed in public works, especially in the construction of their own barracks on the hills and the roads leading to them?

(e) His Honor strongly advocates the employment of British soldiers on the hills, and Native soldiers in all parts of India. He believes that this question has been discussed in the Public Works Department. The success attending the employment of British troops on the Murree-Abbottabad road is well known; and the good results to the State do not only consist in getting the work done at fair rates, but in preserving the men in robust health. Working pay as given by the military regulations does not recompense a soldier for the extra labor, involving the consumption of more food and other incidental expenses. He accepts it of course on service; but on civil works, in times of peace, other rates and rules should be introduced, on the principle of paying the soldier at the same rate as a civil laborer for the work he turns out. His Honor believes that if volunteers were called for, the Government would have no difficulty in establishing a system which would in many ways be of immense advantage to the Government and its army.

46. Do you think it desirable that the power formerly granted to commanding officers of Native regiments to dismiss men of bad character or inefficient for service should be restored?

46. His Honor thinks that all commanding officers should have the power to discharge. If a commanding officer exercised this power harshly and without judgment, he should be deprived of it, or removed from his command; but the great advantage which this power must give to commandants should not be withheld from all, because one commandant out of fifty may not be competent.

48. In the ryotwari districts, or in other parts of India, would grants of waste lands, revenue-free, for their lives be acceptable to Native officers and soldiers in lieu of part of their pension?

48. The grant of waste land revenue-free for life would not be acceptable in lieu of pension, if the value of the grant is strictly reckoned. Of course, if the grant is liberal, it might be acceptable; but His Honor does not think it would be economical to pursue such a practice.

50. For the education of cadets of good family for direct commissions as Native officers, would it not be desirable to afford them the means of instruction in military schools, say one at Roorkee for Eastern, and one at Poona for Western India, where the fees should be sufficiently high to ensure only gentlemen of a superior class entering their sons, and to which nominations should be made by the Viceroy?

50. His Honor thinks that existing schools furnish means for obtaining a good general education for all classes. For the young men who are selected for direct commissions, special military instruction may be provided with advantage as suggested, as it is in England at the Royal Military College, after the general education has been tested by examination.

51. To what extent would you recommend the grant of commissions otherwise than by promotion from the ranks; and what should be the attainments qualifying for such nominations?

51. The number of commissions to be reserved for direct nomination must be fixed in communication with the military authorities. It is necessary that men nominated to direct appointments should be of good family, fair education, and good physique. It is desirable that the nominee should bring



## QUESTIONS.

52. With reference to the comparative small amount of pension to pay of Native officers, and to afford them greater inducements to retire, would it be desirable and acceptable to them to establish a system of deferred pay by deduction of a small percentage, say 5 per cent., from the pay of all Native officers hereafter promoted, to accrue to individual credit, with interest say at 4½ per cent. ? The sum to be handed over on retirement, or to his heirs at any time in case of his death, and to be inalienable by any authority, except by being confiscated to the State in case of cashiering.

53. Has your Excellency any suggestions to make with a view to alter or improve the terms on which Native officers and soldiers can obtain pension, or to alter the periods after which Native officers and soldiers can obtain pension on medical certificate or otherwise ?

54. Do you consider that, under a proper system of concentration and distribution at important centres, the strength of the present Native army in India can be reduced, should it be resolved to create a system of reserves supplying extra men to meet a call for service, say to an extent equal to half the strength of the present Native army ?

55. Would it be advantageous in your Excellency's opinion to establish such reserves ; and if so, on what principle ?

56. Do you consider that the Home or any Continental system of reserve force could, with alterations, be adapted to the Native armies of India ?

57. If you object generally to the creation of extra reserve forces of Native troops, but having regard to the fact that annually a large number of men are transferred to the pension list, and that the cost for the total number of pensioners, viz., 63,178, is Rs. 46,08,539 per annum, do you see any reason why the present system of invalid pensioning after 15 years' service should not be abolished, and a limited number of effective men be passed to a reserve on reserve pay after say not less than eight years' service, non-effectives being at all times examined by a medical board and struck off with gratuities equal to one month's pay for regimental or reserve service, as the case may be, for every year's service ?

In such an organization the men of the reserve could be retained under the immediate control of their own regimental officers, and be liable, during a fixed period, to be called out at any time in case of war to join their own regiments and for one month's annual training at the depot after which period they might pass into a second reserve, liable only to be called out for garrison duty in case of war, until entitled to reserve pension.

On the score of efficiency and economy, and to afford the means of maintaining regimental depôts and such reserves as have been proposed above, might it not be advisable to increase regimental strength from 600 to 800 sepoy, with a corresponding reduction of the number of battalions in the proportion of 4 to 3 ?

## ANSWERS.

a certain number of recruits (if wanted) of his own country, not as his servants, but men induced to enlist by his influence.

52. His Honor does not think that such a system as that suggested can be made acceptable or attractive to Native officers. To the extravagant it would be irksome, and to the prudent it would give no advantage, as a Native can always invest his savings at much more profitable rates than 4½ per cent. per annum.

53. For the Native army His Honor thinks that pensions should not be given until 18 years' service has been completed. All men declared physically unfit whose service is under 18 years should be discharged with gratuity. After 32 years' service the existing regulation allows a soldier to retire on the pension of his rank. All pensioners of less than 32 years' service who are physically fit for military duty should be required to serve on garrison duty when required.

54. This question has been answered by this department letter No. 406, dated 19th August 1879.

55, 56, 57. The following three schemes will provide a reserve for the army in the Punjab at a cost comparatively small :—

*First.*—To utilize the police force in this province as far as practicable. This force recruits from the fighting classes, and has men in its ranks equal, if not superior, in physique and general intelligence to the average of the men in the army.

*Second.*—To increase the strength of infantry regiments in the Punjab to a war strength, reducing the numbers in times of peace, and maintaining the balance as a reserve at their homes on half-pay, but ready to rejoin at short notice.

*Third.*—To make use of the troops of the Native States in the Punjab, and requiring each Chief to keep up a certain number of men ready for service in any part of India.

Before describing the particulars of each scheme, His Honor remarks that, although the first and third schemes may be practically useful in the Punjab, he does not feel certain that they can be equally applied to the other provinces of the Indian empire. But, as far the Punjab is concerned, the Lieutenant-Governor feels assured that both these schemes offer advantages which should not be disregarded in carrying out any measures of reorganization in a comprehensive sense. It must therefore be understood that the following remarks are only intended to provide a reserve for the troops in the Punjab.

*I.—Reserve in police.*

His Honor proposes to call upon men now in the police to volunteer for a military reserve, up to a maximum number of 3,000 men, which is about one-sixth of the police force. Each man after volunteering should go through a course of musketry instruction and be taught to use the snider rifle. As soon as he has passed this course, he should receive one rupee a month extra pay from the Military Department.

Instruction in shooting to be carried on at all the stations in the Punjab, and instructors from the Native infantry should be provided, and be worked under the general direction of the assistant adjutant generals for musketry.

The men in the police do undergo on enlistment a certain amount of training drill, quite sufficient to make them capable of readily acquiring on joining a regiment the chief essentials in military drill and discipline. What His Honor

## QUESTIONS.

## ANSWERS.

considers of the greatest importance is, that the men who are to form this military reserve should be taught to shoot well with the snider; and to attain this end, His Honor would risk the sacrifice of some portion of the man's efficiency as a policeman in making him go through a course of musketry instruction; and after passing this, he should receive the additional one rupee per mensem.

This reserve should be available by instalments as follows :—

1,000 men at once,  
1,000 men in 12 days,  
1,000 men in 30 days,

or the whole 3,000 in the month.

The cost of this scheme would be as follows :—

	Per mensem.	Per annum.
i.—Pay of men at Re. 1 per mensem ...	3,000	36,000
ii.—Pay extra to instructors ...	.....	4,000
iii.—Pay of substitutes entertained during course of instruction ...	.....	8,000
Total per annum ...	.....	48,000

The above would give 3,000 men at an annual cost of Rs. 48,000; or 16 per annum per man. There would be no charge for pensions, except for wounds or for families of men killed in action.

#### II.—Regimental reserves.

All regiments of infantry in the Punjab to be increased to a war strength of 760 sepoys, and reduced in times of peace to 560 sepoys.

During peace the difference between war and peace establishments (200 sepoys) should be put on half-pay, or Rs. 3½ per mensem, and allowed to reside at their homes, on the condition of rejoining at short notice. They should be required to assemble at some fixed central depôt for training for one month in each year.

They should be granted free passes by rail whenever proceeding to and from their training depôts, or to and from their regiments.

It is estimated that this scheme would give a reserve of 6,000 sepoys, as there are 30 regiments in the province. It is intended to include the three Goorkha regiments in this scheme, as it is believed the system would be liked by the men, and would assist recruiting. It is also believed that in Punjab regiments the system would be popular, and that by recalling or changing the reserve men every four years, the necessity for granting long furloughs will be in a great measure removed. But if long leaves be granted, in addition to this system of reserves, His Honor would urge most strongly that for all leaves over three months all Native soldiers should lose the batta of their ranks.

For the Native cavalry His Honor would advocate an extension of the system now obtaining in the Punjab Frontier Force, which allows one-sixth of a regiment, or one full troop, to be absent on furlough, which is open throughout the year.

His Honor would give the men half their own pay, but full pay for their horses, and allow them to be absent for two years.

In connection with the above scheme, His Honor would also use the reserve centres as recruiting depôts for all regiments which recruit in the Punjab.

The centres might be three in number, and placed—

- i.—At Rawal Pindi.
- ii.—At Lahore, with a branch in the Kangra hills.
- iii.—At Umballa.

There are in the army 27 regiments of infantry, chiefly composed of Punjabis, and about 32 companies, or the equivalent of four other regiments, scattered in other regiments of the Bengal army. The recruiting for these would

## QUESTIONS.

## ANSWERS.

give ample employment to an establishment of the following officers at each of the three reserve centres, as it is estimated that in ordinary times about 1,800 recruits will be annually required in the infantry, being 8 per cent. of strength.

Each depôt should have the following establishments :—

1 commandant on a staff of Rs. 400.

1 adjutant on Rs. 250 staff.

2 officers { 1 squadron officer ... } withdrawn from  
          { 1 wing officer ... } regiments.

1 medical officer.

During the cold season the duties of these officers would chiefly be in training reserve men, who should be assembled for a month at the time most convenient to the men themselves.

And during the hot weather these officers should be employed in recruiting.

It will be necessary to give to each reserve man an annual grant of Rs. 4 to enable him to keep up a suit of half-mounting. His regular clothing, arms, and accoutrements should be kept in store at the regimental headquarters.

In carrying out any measure on these general principles, His Honor thinks that advantage should be taken to revise the pension rules. At present all soldiers are granted invalid pensions after a service of 15 years. The changes advocated are as follows :—

I.—All men under 20 years' service declared physically unfit to be discharged with gratuity under the rules now in force, the maximum being 12 months' pay.

II.—All men of 20 years' service and over declared physically unfit to be pensioned on their rank under existing regulations.

III.—All men over 20 years' service, although physically fit, but declared by a committee of regimental officers to be professionally unfit for active service, to be granted  $\frac{1}{2}$  or  $\frac{3}{4}$  or full pensions, according to length of service.

IV.—To guard in a measure against cases of malingering, a commanding officer should be invested with authority to commute pensions to gratuity in cases when he considers a man has been malingering.

V.—All pensioners under 40 years of age to be considered liable to be called on to serve on garrison duty, unless declared by the invaliding committee to be incapable of performing garrison duty near their homes.

The cost of the foregoing proposals may be thus roughly stated :—

I.—The proposal to form a reserve of 200 men per regiment, or 6,000 men per 30 regiments of infantry, would cause an excess expenditure in times of peace of Rs. 21,600 per annum, the calculation being based on the present strength of infantry regiments in peace at 640 sepoys.

II.—In extending this system to 15 cavalry regiments, there will be a saving of Rs. 50,000 per annum.

III.—In carrying out the proposal for reserve centres and recruiting depôts, there will be an increase of Rs. 80,000 per annum.

IV.—No estimate is formed of the saving in regard to the proposals to alter the pension rules and pay of men on furlough or long leave.

*III.—Troops of Native States considered as a reserve.*

The Lieutenant-Governor trusts that in the deliberations of the Army Commission the question of the permanent utilization of the contingents of Native States may find place. He can conceive no question more worthy of serious discussion by this competent body of officers. Nor does His Honor doubt but that the difficulties which exist, and they are numerous, can be met and put aside. Should it be undesirable to at once extend the system generally, the Punjab, which has shown so excellent a spirit, and the forces of whose Chiefs are so well disciplined that they may be brigaded without shame with regiments of the Indian army, might be the province selected for first trying an experiment which eminently deserve trial, and which, in His Honor's opinion, would as certainly succeed.

## QUESTIONS.

## ANSWERS.

His Honor is aware that the conclusions of the Committee of 1877 on the armament of Native States were generally opposed to the principles which he here advocates; but he would urge that the whole position of the question has been lately altered, first by the imperative necessity of financial reduction, which must be effected, even at some risk; and secondly, by the results of the Cabul war, and the successful employment of the Punjab Chiefs' contingents.

The objections which may be raised against improving the discipline and equipment of the troops of Native States, so as to make them efficient auxiliaries to our own forces in time of war; are—

(1) The danger of creating a really efficient body of troops not under our control, and which may be used by the Chiefs for purposes hostile to our Government;

(2) or may be used by the Chief to create for himself a despotism in his own State, which would be oppressive to his own nobles and subjects;

(3) or may become uncontrollable by the Chief, and be a source of danger to the peace of the empire, as it is not composed of the subjects of the Chief.

These objections do not arise in the case of the Punjab Chiefs.

In the first place, the Chiefs have shown themselves exceedingly loyal at all times, and especially during the mutiny of 1857. There is no reason to suppose that this feeling will change, or that any feeling of hostility to the British Government is likely to grow up, so long as these States are treated with the same consideration as at present.

The Chiefs are not in the same position as those of Rajputana and other parts of India. They are not feudal sovereigns, with a large body of nobles under them, who furnish the contingents of fighting men required for State purposes, nor are they foreign conquerors, of a race different from that of the people over whom they rule. They have therefore no subjugation of their nobles and peoples to accomplish which cannot be done by the means already at their command.

Their troops are drawn from the population of their own territories, and are not *foreign* mercenaries.

The danger therefore of the troops being used for oppressing the subjects of the State, or becoming uncontrollable, is reduced to very small limits. The plans which His Honor would propose for utilizing the troops of the Native States in this province are—

(1) To make an agreement with each Chief to furnish a certain number of disciplined troops as auxiliaries when required to do so.

(2) These numbers might be as follows :—

			Cavalry.	Infantry.
Kashmir	...	...	...	2,000
Patiala	...	...	200	1,200
Jhind	...	...	200	600
Nabha	...	...	200	600
Kapurthala	...	...	200	600
Bahawalpur	...	...	100	300
Malair Kotla	...	...	50	200
Total	...	...	950	5,500
GRAND TOTAL			...	6,450

(3) In order that these troops should be mobile, each Chief should be desired to maintain mule carriage to the extent of one mule for every three men.

(4) His Honor would not insist upon British officers being employed in training these troops, unless the Chief concerned desired such a measure. The existing rules prohibiting the employment of Europeans in any State without the sanction of the Government of India should remain in force.

## QUESTIONS.

## ANSWERS.

61. What are the communications the construction of which appears to be of the first moment from a military point of view ?

(5) The troops should be inspected periodically at the head-quarters of the State. They should not be required to perform duties in British territory in times of peace, but should be liable to be called out in times of war, either to serve in taking the place of our troops in garrison duties, or to take the field with any British force.

61. His Honor thinks that the most important work in communications in a military point of view is (1) the completion of the railway to Rawal Pindi; (2) its extension to Peshawar, including the bridging of the Indus.

If a large body of troops are maintained in the Kuram valley, His Honor would in that case urge the necessity of having a good metalled road from Rawal Pindi into the Kuram valley. He would also advocate the construction of a good road through the Khyber, in view to its being converted into a railway in the event of its being decided to connect Cabul with the railway systems of India.

(Sd.) S. BLACK, Colonel,  
Mily. Secy., Punjab Government.

No. 484C., dated Simla, 8th September 1879.

From—COLONEL S. BLACK, Secretary to the Government, Punjab, Military Department,  
To—The President, Army Organization Commission, Simla.

In paragraph 2, clause 11 of the Government of India, Military Department, letter No. 202S. of the 7th July last, the Army Commission are desired to give an opinion on the following question :—

“ Having regard to the alterations made in our frontier, and redistribution of our frontier garrisons, is it desirable to retain the Punjab Frontier Force on its present footing, or to place it, in part or altogether, under the orders of the Commander-in-Chief ? ”

2. It is now nearly 30 years since the Punjab Frontier Force was first raised, and placed under the control of the Punjab Government, for the purpose of strengthening the hands of the civil and political authority, in maintaining order on a border which had always been a source of trouble to the Sikh Government, and which, at the time of annexation, demanded from the Board of Administration the exercise of considerable vigor for its better management.

3. During this period of nearly 30 years, the question of the control of this force has on three occasions been exhaustively discussed, and placed before the Government of India. On each occasion this Government has felt it necessary, with no jealous regard for its own dignity and power, but with a sincere desire to further the imperial interests and policy to advance those arguments which appeared, and still appear, to the Lieutenant-Governor irresistible in favor of maintaining intact the special characteristics of this local force, without which it would lose its chief value and use. Its isolation was of immense advantage to the empire in 1857; and although its position may be considered anomalous, the Lieutenant-Governor thinks that the causes which secured the active loyalty of this small force during the sepoy war should be studied and not forgotten.

4. In 1859-60 the question of placing the force under the orders of His Excellency the Commander-in-Chief was for the first time considered; and the views of the Lieutenant-Governor were communicated to the Government of India in letter No. 462, dated 1st October 1860, to which no reply was ever given. It seems reasonable, therefore, to assume that Lord Canning, the Governor-General, saw fit to leave the existing system undisturbed.

5. In 1862, after a visit to the frontier, Lord Strathnairn again raised the question; and for the second time the views of the Lieutenant-Governor were communicated in the papers which accompanied this Department letter No. 889, dated 10th December 1862, to which a reply was received, conveying the decision of the Governor-General in Council in the following words (letter No. 994, dated 29th March 1864, to Adjutant General) :—

“ The question whether the relations of the Punjab Force with the Punjab Government, and with His Excellency the Commander-in-Chief, are to remain as at present or not, has been considered and decided in the affirmative; and the Governor-General in Council, on a review of all that has been urged for and against that decision, has no hesitation whatever in confirming it. He observes that Sir Hugh Rose himself has borne willing testimony to the efficiency of the force, which indeed has been amply proved by an experience of 14 years; and the few defects pointed out in its drill are not such, His Excellency in Council thinks, as materially to affect the question; whilst the argument in favor of the maintenance of the existing system, based on the constitution of the force, and on the advantages of its being under the direct control of the Local Government with reference to the special duties it has to perform, is strengthened by each year's experience.”

6. Again in 1869 Sir William Mansfield reopened the question in an able minute, dated the 25th August of that year; and for the third time the opinions of the Lieutenant-Governor were reiterated in this Department letter No. 108 of the 19th March 1870. It is believed that the whole question came under the consideration of the late Lord Mayo; but no orders were issued on the subject, and no change was made in the existing system. It is, however, a significant fact that, when this question came forward for discussion in the spring of 1870, Lord Napier had just assumed command

of the Indian army; and during the whole period of His Lordship's tenure of his command, His Honor is not aware that any opinion or desire was ever expressed to alter the position of the Punjab Frontier Force in its relations to the Local Government.

7. As Sir Robert Egerton believes that the efficient political management of the border has been, and still is, very considerably facilitated by the Punjab Frontier Force being under the control of the Lieutenant-Governor of the Province; and as His Honor is further convinced that, were it withdrawn from his control, the efficiency of the administration would be seriously impaired, and the strength of the frontier line of defence permanently weakened, he is desirous of placing before the Army Commission, not only his own opinions, but the opinions of former Lieutenant-Governors on the following points:—

- (a) How the force came into existence as a separate body from the rest of the army of Bengal.
- (b) Reasons of the Governor-General for placing it under the Local Government.
- (c) Description of frontier. Changes made in strength of force for frontier defence.
- (d) Militia employed.
- (e) Constitution and duties of force.
- (f) Reasons for maintaining local character of the Punjab Frontier Force under the control of the Local Government.
- (g) Finally, how the duties of the Punjab Frontier Force can be appropriately extended under the altered condition of the frontier.

8. At the annexation of the Punjab, in 1849, the Board of Administration succeeded to an inheritance of anarchy, the result of the Sikh management of their trans-Indus districts. The whole country was studded with forts, each the head-quarters of a robber-chief; and the revenue was collected by an army, or not collected at all. The Board, under these circumstances, found it necessary to employ some of the Sikh troops, and took the *élite* of that force, which Major Edwardes had enlisted and commanded during the Sikh war.

9. But for the more permanent protection of the western frontier other arrangements were proposed; and soon after annexation the Board received authority to raise five regiments of cavalry and five regiments of infantry for service in the trans-Indus districts.

10. In the course of 18 months these regiments were raised, and equipped on the irregular system; and Lord Dalhousie, in October 1850, explained his reasons for placing this frontier force under the authority of the Board of Administration. His Lordship said: "His object was to secure for the Local Government the full and complete control of military means, sufficient to effect any object which political considerations may, in their judgment, render it expedient to secure on the distant frontier."

At the same time the strength of the force was fixed; certain reductions of the Sikh levies were directed; the organization of three field batteries of artillery was ordered; and the appointment of a brigadier to the command of the force was sanctioned.

11. It was the conviction that the hill tribes must be promptly dealt with by an able and experienced local force that determined the Supreme Government to adopt these measures; and it is evident that Lord Dalhousie was aware of the necessity of strengthening the hands of the Civil Government. In June 1852 he thus addressed the Board of Administration:—

"Para. 10.—The Governor General thinks it expedient, in order to prevent any further misapprehension, that the powers of your Board, in relation to the military authorities, should be more definitely declared.

"11. Your Board, His Lordship in Council observes, although humble in its official title, is loaded with a greater responsibility, and exercises more important functions in regard to our foreign relations, than the Government of Madras or Bombay or any other Local Government of India. The nature of the frontier entrusted to your Board, and the character of the restless enemy with which we have there to deal, call for a prompt and decided course of action, which would oftentimes be impaired by a reference even to Lahore; while it is not difficult to imagine a concurrence of events which would render it of the highest importance that your Board should have the power of acting effectively without waiting for the sanction of the Supreme Government, which, under all ordinary circumstances, it would be the duty of your Board to seek. But there cannot be two masters having the power to control public measures; and as the distance at which the Supreme Government is placed obliges it to delegate the mastery to some authority, and as your Board is most properly to receive that power in order that your means may be commensurate with your responsibilities, the military authority cannot be admitted to any co-ordinate power with your Board, or allowed to refuse your requisitions, except on exclusively military grounds."

12. Some of the considerations which existed when the order from which the above extract is taken was passed, have been modified by the construction of the telegraph; but the necessity for checking promptly the incursions of a restless enemy remains in full force; and it is most important for the efficient administration of the border, and the preservation of public safety trans-Indus, that the control of the Punjab Frontier Force should remain with the Punjab Government, in whose hands it has proved a most effective means of maintaining the peace of the border.

13. For a description of the frontier, which has still to be guarded, an extract from a Frontier memorandum written in 1876 (paragraphs 3 to 10 and 20 to 21) is hereto appended (marked A), and will give all the information required without lengthening this letter. But it may be as well here to note the several changes made in the several arms of the force, in order to mark its growth up to the present time.

*Artillery.*—Three field batteries and one garrison battery were raised in 1849, subsequently reorganized and officered.

In 1855 the Hazara Mountain Battery, and in 1858 the Peshawar Mountain Battery, were added to the Punjab Frontier Force.

In 1869 one field battery was reduced; in 1877 the remaining two field batteries were converted into mountain batteries. The artillery now consisting of four mountain batteries and one garrison battery.

*Cavalry.*—The cavalry consists of five regiments; no change having been made in the number of regiments.

The corps of guides was raised in 1846. Since its first formation its strength has been increased.

*Corps of Guides.*

At the annexation of the Punjab it was placed under the Commissioner of Peshawar, and located at Murdan, for the defence of the Yusufzai border. Its commandant was invested with magisterial powers, and held civil charge of the Yusufzai portion of the Peshawar district. In 1855 the corps of guides was incorporated with the Punjab Frontier Force. Raised as "guides," and composed of varied elements, an endeavour has been made to preserve the distinctive character of this fine corps; and about one-eighth of its numbers have in late years gone through a course of instruction in military sketching and reconnaissance at Roorkee.

*Infantry.*—Five regiments of infantry were raised in 1849. The Sind camel corps was sent to the frontier in 1850, and in 1853 was converted into a regiment of infantry, taking its place in the force

*Punjab infantry and Sind camel corps.*

as the 6th Punjab Infantry. As these regiments took up their positions in the defence of the border, the irregular Sikh levies were gradually reduced.

In 1846 the four regiments of Sikh local infantry were raised for civil duties in the cis-Sutlej districts and the Jullundur Doab. After annexation,

*Sikh infantry.*

it was determined to employ these regiments on the frontier, and to withdraw certain police battalions from the frontier to the cis-Indus districts. In 1854 and 1855 these four regiments were ordered to the frontier, and became a part of the Punjab Frontier Force.

In 1858 the 5th Regiment of Goorkhas was raised, and located in Hazara, and placed

*Hazara Goorkha Battalion.*

under the orders of the Brigadier Commanding the Punjab Frontier Force.

14. Thus it will be seen that up to 1855 the limits of the command of the Punjab Frontier Force extended from Kohat to Sind, and that the force consisted of—

4 batteries of artillery.	5 regiments of cavalry.
	6 regiments of infantry.

After 1855 the troops at Murdan and at Abbottabad were added to the command; and the force was increased by—

2 mountain batteries.	4 Sikh infantry regiments.
1 corps of guides.	1 Goorkha regiment.

But there is also a body of militia which has been intermingled with the Punjab Frontier Force and has materially assisted in the defence of the frontier. These men\* are employed in conjunction with the military in holding a chain of outposts for a distance of 450 miles, from Lattamar, in the Bannu district, to the Sind border. They are commanded by the cavalry commandant in each district, but are enlisted by the Deputy Commissioner.

(d) *Militia employed.*

• 403 horsemen	}	Sanctioned in 1862.
217 footmen		
620		

389 horsemen	}	As reduced in 1873-74.
206 footmen		
595		

15. Some militia or levies have always been employed in the defence of the border in Bannu and the Derajat. Their numbers fell to a minimum in 1856; but on the outbreak of the mutiny in 1857, several of the Punjab frontier regiments had to be withdrawn from the frontier, and their places had to be taken by levies raised by the district officers. In the Kohat district the outposts and the fort of Bahadur Kbel were made over to the Khattak Chief. In Bannu and the derajat bodies of levies had to be regularly entertained.

16. When the troops returned after the termination of the war, in 1859, these levies came under reorganization and gradual reduction. Finally, in 1862, when further reductions became imperative, the levies were fixed at 403 horsemen and 217 footmen, and placed under the military authorities. At that time the 6th Police Battalion, heretofore maintained at Dera Ismail Khan for civil duties, was disbanded.

17. At various times the policy of employing militia has been discussed. It is reassuring to know that these men can, under any sudden emergency, be entrusted with the joint defence of our border line; and it is generally admitted that there are advantages in giving some military service to the Chiefs and people of the border, as the best means of affording an outlet to their martial spirit, and enlisting their sympathies in favor of Government and order.

This was fully recognized by the Committee assembled to consider the question of the best means of improving the defence of the border in the Peshawar division, and whose recommendations, supported by the Lieutenant-Governor, have been generally approved by the Government of India.

As this system has worked well, His Honor would be sorry to see any change. Disagreements between the political officer who enlists and the military officer who commands seldom arise; but when they do occur, they are easily adjusted, as both officers are under the same controlling authority.

18. The regiments of the Punjab Frontier Force guard the entire length of frontier, with the exception of a part of the Peshawar valley, against the incursions of independent border tribes. Including the

(e) *Constitution and duties of the force.*

temporary increase lately made on account of the Afghan war, the force consists of—

Artillery ...	...	...	...	...	935 men
Cavalry ...	...	...	...	...	2,964 „
Infantry ...	...	...	...	...	10,137 „
					14,036

but the normal strength may be taken at 12,500.

It is composed of many races, chiefly of Sikhs, Punjabi Muhammadans, Dogras and Pathans. The Hindu element preponderates, there being 7,849 of Hindus to 6,171 Muhammadans. The following statement gives details :—

			Artillery.	Cavalry.	Infantry.	Total.	Hindus.	Muham- madans.
Hindustani	...	{ Muhammadans	11	617	154	782	...	782
		{ Hindus	3	203	359	565	565	...
Punjabi	...	{ Musalmans	461	298	2,118	2,877	...	2,877
		{ Hindus	95	151	67	313	313	...
		{ Sikhs	364	919	3,254	4,537	4,537	...
		{ Kukas	...	...	5	5	5	...
		{ Dogras	...	160	1,411	1,571	1,571	...
Pathans	...	{ within border	...	545	1,131	1,676	...	1,676
		{ beyond border	...	65	771	836	...	836
Goorkhas	...	...	...	...	858	858	858	...
Other classes	...	...	1	6	9	16	...	...
			935	2,964	10,137	14,036	7,849	6,171

Out of the force of 14,000 men, 836 are Pathans from independent territory, mostly Afridis, who readily take service. The policy of enlisting men of independent tribes with whom hostilities are not improbable has been sometimes questioned, and recent experiences during the late war with Afghanistan have caused some doubts to arise in regard to the usefulness of the Afridi as a soldier in the ranks of the Bengal army. Opinions are divided on the subject; but His Honor, having regard to the good service rendered by men of this class, sees no sufficient reason for excluding them from the army, or for mistrusting them. Amongst the Native officers of the army are to be found some Afridis, who have, by their loyalty and courage, established for themselves a reputation. For instance—

- (1) Subadar-Major Payab (Sirdar Bahadur), 1st Punjab Infantry.
- (2) Subadar-Major Abdulla Khan (Sirdar Bahadur), 26th Native Infantry.
- (3) Subadar Mauladad (Bahadur), 20th Native Infantry.

It is quite probable that of late years sufficient care has not been devoted to enlistments. But His Honor thinks that with due restrictions on enlistments, and with the introduction of checks on desertion,\* this class of recruits may prove, under certain circumstances, most useful soldiers, whilst good must result from having some men of this tribe, pensioned or in service, favorably disposed towards Government. In 1878 there were 700 Afridis in the Punjab Frontier Force. Out of this number, there were the following desertions during the 14 months, from 1st January 1878 to 25th February 1879 :—

With their arms	...	...	...	...	14
Without their arms	...	...	...	...	37
Total					51

19. The duties imposed on regiments in the defence of the border varies very much in each district. In Hazara the troops hold the Haripur fort, and an outpost in the Agror valley.

In Yusufzai the guides hold positions on the border, whenever the state of feeling in any tribe renders such a measure necessary. The head-quarters of the corps is only 20 miles from the border.

In Kohat 6 posts (including the fort of Bahadur Khel) have usually been held; but the recent occupation of the Kuram valley necessitates changes and additional posts in that direction. In the Bannu district there are 12 outposts. In the Dera Ismail Khan district there are 13 outposts. In Dera Ghazi-Khan there are 16 outposts.†

In all these posts cavalry are placed, ready to move out on the receipt of information of raids committed or threatened. In some of the larger posts detachments of infantry are placed, generally with the object of holding the post, whilst the cavalry move out in pursuit of marauders.

The outposts and the militia are under the special charge of the commandant of the cavalry regiment in each district; but all operations which the posts are not strong enough to undertake are directed by the officer commanding the district, who is assisted by the local knowledge of the district civil officer and the tribal Chiefs. No conflict of authority or inconvenience is found to arise from this separation of civil and military authority. It has indeed the best results; and in the normal and peaceful state of the border, it merely represents that division of labor which aids and ensures good administration.

20. It will be seen from the description which has been given of the duties performed by the Punjab Frontier Force, the nature of the country in which the force is employed, and the character of

\* NOTE.—As a safeguard against the desertion of Afridis or trans-border Pathans, a proposal has been made to the Government of India to require all recruits whose homes lie across the border to subscribe to a fund to a limit of Rs. 50. This sum to be refunded on discharge from the service. With other classes, British subjects, the verification of recruits by the civil authority is considered a sufficient guarantee.



the enemy with whom it has to contend, that the service is one requiring special training and local knowledge in both officers and men. These qualifications are acquired and maintained under the present system; and it would be difficult to make any change without impairing the efficiency of this local force, and rendering it necessary to increase the strength of the frontier garrisons, or to employ a large body of semi-military police to perform the duties which the Punjab Frontier Force now undertakes.

21. The arguments which exist in favor of the Punjab Frontier Force remaining "local," and also in favor of this force continuing under the control of the Local Government, appear to the Lieutenant-Governor to be as strong now as they were in the early days of the Punjab.

They are clearly stated, in forcible terms, by Sir Neville Chamberlain and the late Major James in the following extracts :—

*Sir Neville Chamberlain, 1860.*

"That by localizing the force, both officers and men get accustomed to hill warfare, and learn the nature of the duties they are called upon to perform when entering the passes. They also become conversant with the history and character of the different tribes, and are able to appreciate the true nature and tendency of the reports which reach them from the border.

"That the officers of the force at present take an interest in the people of the border and border politics, and are closely associated with the district officers. Should the force be delocalized, and not remain under the Punjab Government, the officers will naturally confine themselves to their military duties, and cease to feel any interest in the people and its country.

"That the duties of the force partake partly of a political and police, as well as military character, and that, whilst both the civil and military officers are under the control and orders of the Local Government, differences seldom occur, and whenever they do, are easily adjudicated. If the force were not under the Local Government, all differences would have to be decided between the head military and civil authorities.

"That the force being under the control of the Local Government, strengthens its authority on the border, and enables it to give employment to men of family and influence. That the system of frontier defence requires the officers and men of the Punjab Frontier Force to act in concert with the militia of the border, both in times of peace and in the field; and that whilst this system is quite practicable under one controlling authority, it would be most difficult under any other arrangement."

*Major James in 1860.*

"Every one who has been engaged in expeditions on this frontier must admit that it is a peculiar style of warfare, requiring special training of officers and men. Independent of the harassing duties attendant on campaigning everywhere, there are peculiar difficulties to be encountered in the hills on the border, and which are overcome by practice only. I have no hesitation in saying that troops freshly and indiscriminately brought to the work would fail: even physically they would break down.

\* \* \* \*

"Then, again, it must be remembered that we never meet the enemy in masses. They skip like goats about the hills; they try to lead us into unforeseen difficulties, and to take us at disadvantage. It is necessary to occupy many points, and to keep up communications with them all. This involves the detachment of many parties; and Native officers and non-commissioned officers are frequently commanding small, but important, posts, in which intelligence, care, and prudence are as indispensable as courage.

\* \* \* \*

"Nothing which I have said can, I trust, be considered as in any way disparaging to the officers and men of the other divisions of the army. I simply assert that whilst the main principles of war must be the same everywhere, yet its details are necessarily dependent on the character of the country and of the enemy, and that these can be mastered only by experience and practice. Any attempt to theorize will prove abortive; and just as peculiar training is necessary for the various departments of the same profession in civil life, so is it essential in the army."

22. It is a fact that the political management of the border has been very largely assisted by a local force, acquainted with the country, and always ready and anxious to carry out, to the best of their ability, any orders which may be issued by the Civil Government. The duties are sometimes perhaps more of a police than a military character; but no difficulties arise in their performance, and officers and men, from experience, instinctively know what is wanted, and what has to be done. Besides this, it is an undoubted advantage to any Government to have at its command a selected general officer, and a body of officers, ready and able, from experience and local knowledge, to afford advice and information on any question affecting border management, or the correction of any offending tribe.

23. Another argument against delocalizing the Punjab Frontier Force was urged by Sir Robert Montgomery in his minute dated 3rd December 1862 :—

"Let us suppose that the arrangements now advocated by Sir Hugh Rose had been introduced before the mutinies, and instead of a local force, distinct from the regular army in organization and sympathies, it had been placed under the Commander-in-Chief, and incorporated and intermixed with the sepoy regiments. Then, in all probability, instead of remaining loyal and contributing essentially, as it did, to the restoration of order, it would have taken part in the insurrection, and greatly added to the difficulties of the time. The same circumstances may not recur. But I cannot but think that one great lesson of the mutinies was, not to trust to one uniform system; not to break down the distinctions of race and character, which preclude the combinations of Native troops; not again to stake all upon one cast, but to build our ship in compartments, and, by some varieties of constitution, prevent the circulation of any secret poison throughout the body. It would be assuming too much to predicate that no sudden emotion can again simultaneously convulse the whole army of India; and, in

my opinion, it will be well not to dispense with one of the checks which has already in practice retained a section of it in allegiance."

This argument has, from change of circumstances, lost some of its force, but it should not be wholly disregarded.

24. Ample testimony has been already given of the efficiency of the regiments composing the Punjab Frontier Force. If it were otherwise, or if the regiments as a military body did not compare well with the rest of the Bengal Native army, His Honor could then see some reason for placing the force under the orders of His Excellency the Commander-in-Chief; but happily no reason of this kind exists for the change.

25. If it be contended that the whole of the Bengal Native army, or the whole of the garrisons of the Punjab, should have the advantage of the special training on the frontier which has made the Punjab Frontier Force efficient, the reply is, that it is impracticable to give this training to the army at large without sacrificing the efficiency which is obtained by the use of a comparatively small local force, and without incurring a largely increased expenditure. The introduction of such a system would tend to make the Punjab Frontier Force more exclusively military; and would certainly end in such a complete separation of military and civil authority as would necessitate the employment of an increased police force under civil control for the duties which the Punjab Frontier Force, as now constituted, performs so efficiently. Should the force be transferred to His Excellency the Commander-in-Chief, some precautions will doubtless be taken to prevent any of the evils which Sir Robert Egerton anticipates. These may be effective for a time; but the tendency of all military organization is to reduce everything to one system. The special precautions enjoined at first will be found troublesome and anomalous, and the Punjab Frontier Force will become, in all respects, part of the regular army, bound by the same rules which apply to troops in more settled parts of the country; and will lose that relation to the civil power which at present makes it so efficient an instrument for preserving peace on the frontier.

26. But His Honor cannot help regarding this force as a part of the army of Bengal, lent, as it were, to the Local Government, for special service on a specially circumstanced border. It is ready for any service in any country, and it regards the Commander-in-Chief as its military head; and His Honor would be glad of the introduction of any measures (short of delocalization or entire separation from the Local Government) which will strengthen this feeling, and which will remove the disadvantage under which the officers of the force have, rightly or wrongly, been supposed to labor, that on account of its not being directly under the orders of His Excellency the Commander-in-Chief, their war services are not so readily acknowledged and recognized by the head of the army in India as they would have been if the force had not been removed from his immediate control.

27. For some time past a considerable portion of the Punjab Frontier Force has been serving under the orders of His Excellency the Commander-in-Chief. This has reduced the frontier garrisons much below their normal strength—a measure which can only be considered as temporary, and not safe to continue.

(g) How the duties of the Punjab Frontier Force can be appropriately extended under the altered conditions of the frontier.

Still, with reference to possible reduction, and to the opinions expressed in my letter No. 406C. of the 19th August, it appears to His Honor feasible, without incurring any undue risk, to include in the duties of the Punjab Frontier Force the protection of the Kurram valley, if assisted by a body of militia. In my letter above quoted, His Honor remarked that reductions in frontier garrisons could not be made by any system of concentration. The considerations which apply to garrisons in the Punjab proper do not apply strictly, or in the same degree, to frontier stations. But, after carefully considering this subject, His Honor thinks that it will be quite possible to undertake the whole military occupation of the newly-assigned territory of Kurram when the troops belonging to the Punjab Frontier Force return from Afghanistan.

28. His Honor labors under the disadvantage of not having seen many of the reports which have doubtless been made regarding this new territory; but he has learned something of the nature of the country and the people from the report by Colonel H. B. Lumsden of his journey in 1857, and also in other ways. His Honor believes there would be no difficulty in holding this new territory for administrative purposes, with the following force, considering the additional strength which we gain by our present relations with the Cabul Government:—

- 1 mountain battery.
- $\frac{1}{2}$  regiment of cavalry.
- 4 regiments of infantry.

29. On the return of regiments of the force now serving under the orders of His Excellency the Commander-in-Chief, a force of this strength can be furnished from the Punjab Frontier Force, as shown in statement given in appendix C. The precise localities for occupation by troops and militia can be settled hereafter, as a matter of detail, into which the Lieutenant-Governor does not now enter.

30. It will also be possible, and perhaps advisable, in the Lieutenant-Governor's opinion, to convert one of the Punjab infantry regiments and one of the cavalry regiments into a corps of guides for special service in Kurram; employing the commandant and other senior officers in conducting the civil administration of the country. If, however, such an arrangement is not compatible with the highest military efficiency, on account of the number of British officers being limited to the military requirements of regiments, His Honor would propose the appointment of a selected military officer to hold military command of the troops in Kurram and political and civil charge of the administration of the valley, assisted by a small civil staff, the strength of which might be hereafter determined.

31. Eventually, as the Zaimukhts and Orakzais settle down, it may be possible to reduce the infantry to three regiments, the extra or fourth regiment being in that case placed in reserve at Kohat.

32. If it is desired to keep British infantry regiments in the valley for sanitary reasons, and to keep up a force in the valley for the purpose of watching Cabul, the strength of this force should be regulated by military considerations, which should not be mixed up with the civil administration of the

country. It will be seen that a garrison for Kuram can be as now constituted, there being no extra expense incurred. In fact, the performance of increased duties will result to a reduction.

## APPENDIX

### *Extract paragraphs 3 to 10 and 20 to 24*

**Para. 3.** The north-west frontier of the Punjab compr

General description of the frontier.

Kohat, Bar  
the line of fro

from a point on the river Jhelum, half-way between the hills running due north with the Kaghan ranges into the high hills descending to the south till it touches the Indus, where that river. Turning to the north to enclose the fertile plain of Yusafzai, it goes where it crosses the Swat river, and from that point descends almost due north on the Indus, on the border of Sind. The frontier line has never been satisfactory shown on maps is merely that of the topographical survey, the limits considerations of departmental convenience, and not of general policy.

Two of these districts, Hazara and Kohat, are hilly, and in parts mountainous. The other four are almost level plains, only broken by deep ravines and torrent beds, which make even the Peshawar valley difficult for the movements of cavalry and guns.

The characteristics of the people inhabiting them differ almost as much as the character of the districts themselves; and it is necessary, in as few words as possible, to describe each district before giving an account of the independent tribes beyond the border, and of the system by which they are controlled.

**4.** The area of the Hazara district is 2,835 square miles, and it is 95 miles in length. The land

The Hazara district.

revenue amounts to Rs. 2,21,366, and the gross revenue to Rs. 2,52,922, per annum. The upper portion, special-

ly that known as Kaghan, is entirely composed of mountain ranges, covered with magnificent forests; the lower portion of the district is, although elevated, more level, and, possessing an abundant supply of water, produces excellent crops. The population, numbering 367,218 persons, is generally peaceable and unwarlike. Its largest element consists of immigrants expelled, some centuries ago, from the neighbouring Swat valley, a physically weak and contemptible race. These form nearly a third of the inhabitants of the Hazara district; nearly half of the remainder is composed of descendants from Rajput and other Hindu tribes, Gujars, Ghukkars, Dunds, and Karáls, who have for the most part adopted the Muhammadan creed. They are industrious and good cultivators, and form the best part of the Hazara population. Descendants of Afghan immigrants, related to the Yusafzai and other tribes in the neighbourhood, constitute a fifth of the whole. It has, of recent years, been asserted that the inhabitants of the Hazara district are of a fierce and warlike disposition, and exceedingly difficult to control; but this false idea is really due to the fact of their rebelling against the oppression of the Sikh occupation. The country no doubt is mountainous and strong; but the people, though litigious, are singularly unwarlike in their habits. Their treatment has been so liberal, and the assessment of land revenue so light under British rule, that they are generally content. That they are prosperous is shown by the large annual export of silver from the district; and the only Hazara difficulties of late years have been in connection with certain unruly independent tribes, who will be hereafter referred to.

**5.** The Peshawar district contrasts remarkably with that just described. Consisting of a wide

The Peshawar district.

and level plain, it is abundantly watered by the large rivers of Swat and Kabul, and is broken only by deep

ravines, which intersect it in every direction. The area, 2,497 square miles, is somewhat less than that of Hazara; but the land revenue, which exceeds Rs. 6,51,000 per annum, is larger than in any other frontier district. The length from north to south is 50 miles; but the border adjoining independent territory is 170 miles long, adjoining the lands of the Jaduns, Bonerwals, Swatis, Ránizais, Utman Khel, Mohmunds, and Afridis, independent and fanatical tribes. From Sikh and Afghan days Peshawar has had an infamous reputation for the character of its inhabitants, who required for their control the sternest administrators the Sikh Government had at its command, and for its climate, which, owing to the excessive irrigation from the streams and rivers, and also from the valley being enclosed by lofty hills, is, at certain seasons of the year, pestilential in the extreme. The inhabitants are strangely mixed. Ninety-five per cent. are Muhammadans, the few Hindus being found as bankers, merchants, and shopkeepers in the city of Peshawar and the larger villages. This observation indeed applies to all the districts south of Peshawar. The population is Muhammadan, the Hindus being but a small minority, carrying on money-lending and trading in the towns. The majority is of Pathan blood; for the census estimate of 46 per cent. is believed to be considerably below the mark, and 60 per cent. to represent it more nearly. The total population of the district is rather more than half a million, of which about one-sixth are Yusafzais, an Afghan clan inhabiting the high plain to the north. After the Yusafzais the most important tribe is the Mohmund, about 80,000 in number, and related to the independent tribe of the same name beyond the border. The remainder of the population is made up of numerous Afghan tribes, representing all the tribes and clans on the Peshawar border, and Punjabi Muhammadans from cis-Indus districts.

**6.** The district of Kohat is almost entirely composed of a system of low barren hills, from which

The Kohat district.

it derives its name, intermingled with small but fertile valleys. Its area is 2,839 square miles; and it yields a

gross revenue of Rs. 1,98,167 per annum, of which Rs. 94,213 is from the land. The importance of

the salt mines, the produce of which is used throughout the high, chiefly from political considerations, is taxed much higher than the other salt mines, which supply the greater part of North India to the principal carriers; and the power of being able to raise the price of the article is an important means of controlling this and the other salt trade, the central depôt of the salt trade, from whence it is taken to the north, and exchanged for the produce of those countries. The price of the salt at Kohat as on the red Jhelum salt, without any known duty, has never exceeded half a lakh of rupees, and at an exceedingly low rate of duty levied. The inhabitants of the Kohat, 102,431 are Afghans, are, in the north, Khattaks, one of the best, who supply our regiments with many of their best soldiers, numerous, amounting to 31,212, and generally is quiet and peaceful. The Kohat runs up to Afghan territory as far as the Kurm river, is of great importance, as its political importance, is centred in its mines of

the Peshawar, and, like it, abundantly watered by the Kurm and Gumbela rivers. The rainfall being exceedingly scanty, cultivation is almost entirely dependent upon irrigation. The area of the Bannu district is 3,171 square miles; and a large sub-division, Mianwali, lies cis-Indus. In this part of the district there is a larger proportion of cultivators than in the trans-Indus portion, where Bannuchis, a mongrel Afghan tribe, are as a rule the first specimens of the race on the frontier—avaricious, litigious, bigoted, and fierce. Their physique, owing to the malarious climate, is as degraded as their morals. They are cowardly and unwarlike; and on this account give less trouble than the next most important section of the population, the Waziris, who are in appearance and in character immeasurably their superiors. The south of the Bannu district is inhabited by the Marwatis, a high-caste Pathan race, brave, simple, and honest, who form as great a contrast as can be conceived to their northern neighbours, the Bannuchis. Their country, a high plain with water so far below the surface that few wells can be sunk, is almost entirely dependent on rainfall for its crops, receiving in a few tracts partial irrigation from the mountain streams. The people are, however, in spite of great natural difficulties, successful agriculturists. They are exceedingly well disposed towards the British Government; and crime against property is rare among them. The land revenue of the district is Rs. 4,23,858 per annum, and the total revenue Rs. 4,70,976, raised from a population of 287,547 persons.

8. The district of Dera Ismail Khan, separated from Marwat by a range of hills which here crosses

The Dera Ismail Khan district.

the Indus and joins the Salt Range in Rawal Pindi and Jhelum, is a long strip of country, measuring 102 miles from north to south, dropping with an almost imperceptible slope from the independent hills to the Indus. That portion of it which has a sufficiency of irrigation is fertile, and especially the Tank valley, which till recently has remained in semi-independent charge of its hereditary Chief. In a great part of the district, however, the rainfall being very small and irrigation wanting, the country is little better than a desert, and can only be cultivated in those exceptional years when abundant rain may happen to fall. The population of the interior of the district is as peaceable and orderly as that of any cis-Indus territory, in which, indeed, by far the larger portion of this district lies; but this, with the exception of the low lands near the river, or where water is sufficiently near to permit wells to be sunk, is but thinly peopled and little cultivated. The manner in which cultivation has been extended since the last settlement in this wild and difficult country will be adverted to later. The area of the district is 7,096 square miles, but although, with one exception, more than double the size of any other frontier district, it stands only second in point of revenue; both the gross collections of Rs. 4,72,992 and the land assessment of Rs. 3,85,806 per annum, being below those of Peshawar. The original population of the district appears to have been Jat. Then came an immigration of Biluchis from the south, forming the bulk of the present population of the Kolachi sub-division, below the Ushtrana country, few being found north of the town of Dera Ismail Khan. In the south they are the dominant class; in the country cis-Indus they are mixed with, and practically on an equality with, the Jats. The only Biluch tribe found together in any numbers is the Kasranis, inhabiting the country about Daulatwala. The Pathans occupy the north of the district up to Isa Khel, together with Marwatis, all recent settlers and rapidly increasing in numbers. They are not, like Jats and Biluchis, scattered over the district, but form a continuous fringe along the Kolachi and Tank sub-divisions, and in number amount to about 50,000.

9. The characteristics of Dera Ghazi Khan resemble closely those of the trans-Indus portion of

The Dera Ghazi Khan district.

the Dera Ismail Khan district. It consists of a strip of country, some 170 miles in length, lying between the Indus and the hills, here entirely occupied by Biluch tribes. The area of the district is 4,740 square miles, the land revenue amounting to Rs. 3,83,007 per annum, and the gross collections to Rs. 4,66,816 per annum. The character of its independent neighbours has exercised as great an influence upon the interior of Dera Ghazi Khan as it has in the districts to the north. Out of the 308,840 forming the population, a third are Biluch. Half the population of the district consists of Jats, originally of Hindu descent, but Muhammadans for many generations past; and the remainder is composed of Pathan immigrants, and a larger proportion of pure Hindus than are found elsewhere on the border. The character of the population of Dera Ghazi Khan may generally be described as being as well-disposed and law-abiding as that of any district in North India. As in Dera Ismail Khan, the rainfall is very scanty, in some years no rain falling at all. The people are, however, skilful cultivators; and the elaborate system of inundation canals from the river Indus both attests their industry and raises the producing power of the district to a not unfavorable standard of comparison with others possessing much greater natural advantages.

10. The length of frontier thus described\* is about 704 miles. As regards communication: the trans-Indus territory is, owing to the character of the country and the poverty of the local funds, far behind the rest of the Punjab. Communications are carried on for the greater portion of the length of the frontier by two roads, one in the interior of the districts connecting the principal towns, and the other, close to the border, connecting the outposts of the regular army and the militia, and maintained in order by the military commandants. All travelling has to be performed on horses or camels and during the rainy season, owing to the alluvial character of the soil, which becomes after rain almost as slippery as ice, travelling is exceedingly difficult and laborious.

	Population according to census of 1868.	Area in square miles.	Land revenue in 1875-76.	Gross revenue, 1875-76.	Length of district.	Length of frontier of district.
			Rs.	Rs.		
* Hazara ...	367,218	2,885	2,21,366	2,52,922	95 miles	120 miles.
Peshawar ...	523,152	2,497	6,51,537	7,75,213	50 "	170 "
Kohat ...	145,419	2,839	94,213	1,98,167	50 "	60 "
Bannu ...	287,547	3,171	4,23,858	4,70,076	55 "	60 "
Dera Ismail Khan ...	394,864	7,096	3,85,806	4,72,992	102 "	124 "
Dera Ghazi Khan ...	308,840	4,740	3,58,007	4,66,816	170 "	170 "
TOTAL ...	2,027,040	23,178	21,64,787	26,36,186	522 miles	704 miles.

20. The whole line of the frontier, from the extreme northern limits of Hazara to below the fort of Harrand, in the Dera Ghazi Khan district, consists of a continuous line of difficult and rugged mountains. From the lofty peaks of Kaghan and the lower Himalayan ranges above Peshawar to the low hills on the Dera Ghazi Khan and Sind frontier, the ranges generally decrease in height and the passes in difficulty, from the north towards the south, only rising again to a formidable elevation in the Suliman range opposite the district of Dera Ismail Khan.

21. A reference to maps and to the records of our hostile operations on the Beluch and Afghan frontiers will clearly show that the Afridis, Mohmunds, and the Bonerwals are each as much more formidable an enemy than the Beluchis, as the high rugged mountain ranges of the northern Punjab frontier are more difficult of penetration and invasion than the flat plain on the Sind border. Mere detachments have penetrated to the head-quarters of the Marri tribe; but no one acquainted with the facts would assert that anything less than a *corps d'armée* could cross our frontier and enter the Khyber or the Tira hills with a prospect of success. So far as the fighting qualities of the border tribes are concerned, it has been already shown that those adjoining the Hazara district are comparatively contemptible as soldiers, their extreme religious bigotry alone making up for their absence of martial qualities.

To the south, between the Swat river and Dera Ismail Khan, the Afghan tribes are both fanatical and brave in an extraordinary degree. Courage with them is the first of virtues, and cowardice the worst of crimes.

The Beluchis, as turbulent, and formerly of habits quite as predatory, as their neighbours, are still of a far milder and more amenable disposition. They are as brave as the Afghans; but they are animated by no fanatical hatred of the English; they have not the military genius of the Afghans, and, as an enemy on the hillside, they are far less formidable. As an illustration of their rude conception of tactics, it may be mentioned that, though famed as horsemen, it is their rule to dismount for a fight, which is conducted hand to hand, and often with sword and shield. Less robust than the Afghans, they still are remarkable for their endurance, and make incredibly long journeys on their mares of a renowned breed. The character of their country seems, to a certain extent, to have developed their method of attack. Comparatively low ridges, intersected by numerous and easy passes, favor their style of attack and reprisal, which consists of dashing and unforeseen inroads, followed by precipitate retreats.

22. The outrages perpetrated in British territory by the independent tribes are numerous and of many kinds. Sometimes, and especially in the early days of British occupation, raids in force have been directed against British territory, almost rising to the dignity of open war. Such was the attack of the Kasranis on Dera Fateh Khan in 1852. On the northern frontier, especially in the Peshawar district, fanaticism has excited wild and bigoted men to attempt the life of individual Europeans, believing that the assassination of an infidel was a sure passport to paradise. To this fierce feeling of fanaticism may be attributed the deaths of the customs officers, Messrs. Tapp and Carne, in 1851, on the Kaghan frontier, and the murders of Colonel Mackeson and Major Adams, Commissioner and Deputy Commissioner of Peshawar, and Lieutenant Ommanney, in 1853 and 1865. Nor have Europeans alone been the object of attack. Natives and Native officers have been the victims of assassination; villagers killed in the commission of raids, and detachments of troops inveigled into murderous ambushes. If these more special forms of frontier offences be put aside, together with large class of murders due to female infidelity, and offences against the person attributed to the possession of arms, there remains as the residuum those crimes which it might naturally be presumed would be committed by fierce and savage tribes inhabiting barren hills, impregnable except to a large force, and overlooking fertile plains, which from time immemorial they have considered as their rightful prey.

23. Those offences which mostly fill the frontier calendar are horse-stealing, house-breaking, and, above all, cattle-stealing, the mere *brigandage* of wild tribes and the gravamen of which consists in an association of numbers to accomplish the offence, and the free and sacred asylum given in the independent hills to the successful marauders. The complete suppression of robbery in a land of brigands is course impossible. Depredations may be said to be almost invited by the character of the country, and by special causes, prominent among which is the annual migration of the great trading tribe of Afghanistan, the Powindas, with their camels and immense herds and flocks, to Hindustan, for whose protection special measures have been adopted which will be hereafter noticed.

24. For the defence of the plain country against the incursions of hill-robbers there is a line of posts, military and militia, along the frontier. On the border of the Hazara, Peshawar, and Kohat districts these are comparatively few and far between, but are held in considerable strength by regular troops. Here the difficulty of the country, and, as regards the Peshawar and Kohat border, the jealous and stubborn character of the tribes, render the pursuit of raiders and robbers too difficult and too likely to cause future complications to be hastily adopted. Indeed, with the exception of the Afridis, the tribes on the Punjab border, including the districts of Bannu and Dera Ismail Khan, are the jealous guardians of mountain passes that lead to nowhere. Under such circumstances, and with no possible advantage to be gained by the occupation of these barren hills, obvious considerations of military prudence limit pursuit in the case of a raid to the mouth of the passes; and an officer who attempted to enter with an inadequate force a defile in possession of the enemy, would be undertaking a grave responsibility.

The line of defence in Bannu and the two southern districts of the Derajat is maintained by smaller and far more frequent posts, only 10 or 12 miles apart, and each situated so as to command one or more of the numerous passes leading to the hills. These outposts are garrisoned in part by troops of the Frontier Force, and partly by them associated with the Frontier Militia; and the smaller and the less important ones by the Frontier Militia alone. While from the local knowledge of the militia men intelligence is often gained which leads to the prevention of a raid or robbery, yet such is the inevitable exposure of the villages and cultivated lands which lie between the posts and the hills, such the carelessness of a population habituated to danger, and such the facilities for attack and flight which the numerous passes afford, that it is only too often the case that the first intelligence which a military outpost receives of a raid is the news that it has been committed, and that the robbers are already back in the hills.

## APPENDIX B.

Return of strength of outposts held by the Punjab Frontier Force in 1862, 1867 and 1877 (alluded to in para. 18).

	1862.				1867.				1877.			
	PUNJAB FRONTIER FORCE.		MILITIA.		PUNJAB FRONTIER FORCE.		MILITIA.		PUNJAB FRONTIER FORCE.		MILITIA.	
	Cavalry.	Infantry.	Horse.	Foot.	Cavalry.	Infantry.	Horse.	Foot.	Cavalry.	Infantry.	Horse.	Foot.
HAZARA DISTRICT	Haripur	...	...	...	...	...	...	...	...	15	...	...
	Ughi	...	...	...	...	...	...	...	...	26	...	...
	Kotul Picket	2	21	...	5	...	...	...	...	...	...	...
	Muhammadzai	2	15	...	...	...	...	...	5	25	...	...
	Gadda Khel	5	...	...	...	5	...	...	5	...	...	...
	Lachi	5	...	...	...	5	...	...	5	...	...	...
KOHAT DISTRICT ...	Banda	5	...	...	...	5	...	...	5	...	...	...
	Nari	7	16	...	...	9	23	...	...	...	...	...
	Lattammar	9	22	4	...	7	16	...	...	12	23	...
	Bahadur Khel	31	78	...	...	31	81	...	...	21	58	...
	Gambat	...	...	...	...	5	...	...	...	...	...	...
	Khushalgarh	...	...	...	...	5	...	...	...	...	...	...
	Fort Garnet	...	...	...	...	...	...	...	5	25	...	...
	Peyzu	...	...	20	20	...	...	...	...	...	...	...
	Shergosah	...	...	...	15	...	...	...	...	...	...	...
	Mulazai	...	...	30	20	...	...	...	...	...	...	...
BANNU DISTRICT ...	Baindarra	...	...	6	56	...	...	...	...	...	...	...
	Gumatti	...	...	6	10	...	...	7	8	...	9	3
	Gumatti Tower	...	...	...	...	...	...	...	...	...	...	8
	Damai	...	...	19	25	...	...	...	...	...	...	...
	Kuram	9	10	9	20	12	10	2	...	12	25	2
	Bairan	...	...	6	10	...	...	7	8	...	9	6
	Tochi	...	...	7	30	...	...	7	11	...	10	7
	Miran	...	...	17	...	...	...	...	...	...	...	...
	Jani Khel	50	81	9	...	54	70	4	...	38	35	4
	Hawed	...	...	2	...	...	...	...	...	...	...	...
Burj	...	...	...	...	...	...	4	4	...	6	4	

## APPENDIX B—continued.

	1862.				1867.				1877.				
	PUNJAB FRONTIER FORCE.		MILITIA.		PUNJAB FRONTIER FORCE.		MILITIA.		PUNJAB FRONTIER FORCE.		MILITIA.		
	Cavalry.	Infantry.	Horse.	Foot.	Cavalry.	Infantry.	Horse.	Foot.	Cavalry.	Infantry.	Horse.	Foot.	
BANNU DISTRICT— (concl'd.)													
							8	4			10	2	
							8	4			10	2	
							8	4			10	2	
							18	7					
										27	7		
DERA ISMAIL KHAN DISTRICT.			6	40			6	40			8	45	
			4				4				3		
			20	10			16	10			14	8	
			20	10			20	9			16	8	
		231	62	4		43	62	4		31	20	2	
				20	10			20	9				
				8	8			12	7				
				8	8			10	8			13	8
		21	22	2		43	22						
		42						8	6				
		21	22	2		42	22			20	21	3	
				20	10			19	9			12	8
				20	10			20	9			13	8
		42	10	2		43	12			15	22	2	
				8	8			8	8				
				4				4					
			4	8			4	9					
			6				6						
			6				6						
										20	12	44	
									30	36			
DERA GHAZI KHAN DISTRICT.			4				5						
			4				5						
			4				4		14				
			4				4						
			8	2			8	2			9	2	
			16	7			14	5			13	4	
		47	58	4		50	58	4		18	24	3	
				5				5					
		25	15	11	9			11	8			8	4
											8		
MITTANKOT-RAJANPUR DISTRICT.		75	25	15		60	25	3		21	20	3	
		83	22	2		60	22	3		16	22	3	
				4				5					
				22	5	13		14					
				5	3			5	3				
				13	6			20	7				
				10	5	10	11	4		12	12	3	
				17	6			12	5			17	8
		46	40	2		30	40	2		21	37	3	
								10	5			11	
							11	5			15	5	
											26	7	

## APPENDIX C.

*Present and Proposed Distribution of Punjab Frontier Force, with reference to proposals made in para. 29.*

	PRESENT.			PROPOSED.			REMARKS.
	Artillery.	Cavalry.	Infantry.	Artillery.	Cavalry.	Infantry.	
Abbottabad	...	...	2	1	...	1	(a) Garrison battery. (b) 1 garrison battery, and 1 mountain bat- tery.
Murdan	...	1	1	...	1	1	
Kohat	(a) ½	1	1	(b) 2	½	2	
Kuram	...	...	...	1	½	4	
Edwardesabad	...	1	2	1	1	2	
Dera Ismail Khan	...	1	3	...	1	2	
Dera Ghazi Khan	...	...	...	...	1	...	
Rajanpur	...	...	...	...	1	...	
Serving under Commander-in-Chief	3½	2	3	...	...	...	
	5	6	12	5	6	12	

## APPENDIX D.

*Actual composition of the Punjab Frontier Force as on 1st July 1879.*

## I.—ARTILLERY.

	No. 1 Battery.	No. 2 Battery.	No. 3 (Peshawar) Battery.	No. 4 (Hazara) Battery.	No. 5 Garrison Battery.	Total.
Hindustani Musalmans	2	1	8	...	...	11
Do. Hindus	...	1	2	...	...	3
Punjabi Musalmans	117	116	77	112	39	461
Do. Hindus	30	15	19	22	9	95
Do. Sikhs	79	97	70	87	31	364
Other classes	...	...	...	1	...	1
Total	228	230	176	222	79	935

*Actual composition of the Force as on 1st August 1879.*

## II.—CAVALRY.

	1st Punjab Cavalry.	2nd Punjab Cavalry.	3rd Punjab Cavalry.	4th Punjab Cavalry.	5th Punjab Cavalry.	Guides.	Total.
Hindustani Musalmans	134	93	153	102	127	8	617
Do. Hindus	...	70	20	41	66	6	203
Punjabi Musalmans	14	86	52	82	44	20	293
Do. Hindus	30	14	17	49	...	41	151
Do. Sikhs	92	159	193	149	199	127	919
Do. Kukas	...	...	...	...	...	...	...
Do. Dogras	35	...	24	53	37	11	160
Pathans within the border	166	85	75	56	62	101	545
Do. beyond the border	4	4	5	7	10	35	65
Other classes	1	...	...	...	...	5	6
Total	476	511	539	539	545	354	2,964



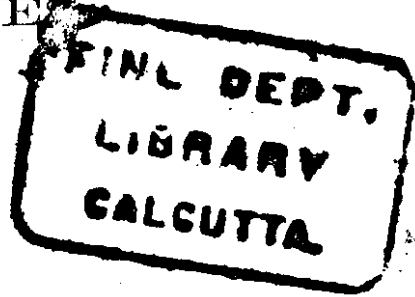
## APPENDIX D—continued.

## III.—INFANTRY.

	Guides.	1st Sikh Infantry.	2nd Sikh Infantry.	3rd Sikh Infantry.	4th Sikh Infantry.	1st Punjab Infantry.	2nd Punjab Infantry.	3rd Punjab Infantry.	4th Punjab Infantry.	5th Punjab Infantry.	6th Punjab Infantry.	5th-Coorkhas.	Total.
Hindustani Musalmans ...	2	22	9	14	33	...	1	52	16	3	2	...	154
Do. Hindus ...	...	66	...	2	66	...	39	...	75	1	110	...	359
Punjabi Musalmans ...	87	192	248	125	164	209	351	250	212	134	143	...	2,118
Do. Hindus ...	15	11	2	1	...	2	...	10	16	4	6	...	67
Do. Sikhs ...	228	466	218	462	421	185	218	259	249	340	208	...	3,254
Do. Kukas ...	2	...	...	...	...	...	...	...	2	1	...	...	5
Do. Dogras ...	130	48	304	111	52	93	129	171	143	109	122	...	1,411
Pathans within the border ...	201	66	38	69	53	105	74	84	86	136	219	...	1,131
Do. beyond the border ...	61	17	39	76	52	98	56	79	98	116	79	...	771
Coorkhas ...	90	...	...	...	...	...	...	...	...	...	...	768	858
Other classes ...	1	...	...	...	...	...	...	...	3	5	...	...	9
	817	888	857	860	841	692	871	905	900	849	889	768	10,137

APPENDICES

TO THE



REPORT OF THE SPECIAL COMMISSION

APPOINTED BY

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

TO ENQUIRE INTO THE

ORGANIZATION AND EXPENDITURE

OF THE

ARMY IN INDIA.

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VOL. II.

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\* N.B.—The Contents of the whole of the Appendices will be found at the end of the last Volume.

## APPENDIX IV.

### Questions proposed by the Commission, and Replies by Officers of the Army in India.

<p>A. Organization, Mobilization, Transport, &amp;c.</p> <p>B. British Cavalry.</p> <p>C. British Infantry.</p> <p>D. Artillery.</p> <p>E. Sappers and Miners, Royal Engineers in India, Military Works, &amp;c.</p> <p>F. Native Cavalry.</p>	<p>G. Native Infantry.</p> <p>H. Medical.</p> <p>I. Commissariat.</p> <p>J. Transport.</p> <p>K. Ordnance.</p> <p>L. Horses.</p> <p>M. Departmental procedure.</p>
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*N.B.*—The replies of all officers have been arranged under the heads of the several questions to which they relate, the questions being printed in larger type than the answers. Miscellaneous papers which were found too lengthy to place in the replies will be found at the end of this Appendix A, except such as deal with special matters, and have been placed in the Appendix treating of the particular subject. Replies have not been received from every officer addressed: and some of those who have answered have not found it possible to send replies to every question.

### A.

#### Organization, Mobilization, Transport and Supply, Equipment and Clothing, &c.

1. What are the additional requirements of corps of the various arms in equipment, &c., proceeding on active service—

(a) In the plains of India ?

(b) Afghanistan, Burma, China, &c., South-Eastern Frontier.

How long would it now take to mobilize a regiment within the division, district, or brigade under your command, supposing that regiment is at full strength, for these various services ?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

(a) In the plains of India the equipment of all branches is sufficient, save as regards water-proof sheets, which would be necessary at certain seasons.

(b) In Afghanistan and Northern China all branches should be supplied with the following articles :—

<i>Europeans.</i>	<i>Natives.</i>
Extra blankets.	Extra blankets.
Water-proof sheets.	Water-proof sheets.
Jerseys.	Jerseys.
Mits.	Mits.
	Socks, woollen.

Also *poshtcons* for sentries and guards.

I know little of the climate of the South-East Frontier or Burma, but I have heard that the Madras troops proceeding on *foreign service* to the latter country are supplied with many articles which they cannot wear, and which they usually sell in the Madras bazars *before* they embark! My informant was the commanding officer of a Madras regiment.

The latter part of this question does not apply to the regiments of this force, as they are now on field service.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

(a) In all arms of the service, European commissioned officers, Native commissioned officers (and all staff non-commissioned officers who do not now carry firearms) should have revolver pistols as a part of their personal equipment.

Officers of both kinds should be supplied by Government at a reasonable cost.

(b) In all arms of the Service, wooden scabbards, covered with leather, should take the place of metal scabbards, which have the demerit of glittering very conspicuously, clanking, and destroying the edge of the blade.

They are easily made and easily replaced.

(c) A water-proof sheet for each man and a blanket.

In Afghanistan two blankets.

(d) In Afghanistan neemchas (half-armed poshteen jackets) are necessary (for night work especially) on picquet or other duties.

(e) A store cart per squadron of British cavalry (horsed regimentally) to carry the valises and other odds and ends which now overload the horses.

(f) Mule or pony carriage for infantry ammunition for one hundred rounds (including that in pouches) per man to be always kept up with the battalion.

(g) In all arms khaki-colored uniform should be the regulation dress for field service, so made as to be loose and comfortable in summer, and to be worn over cloth or serge in the winter.

As all equipments are kept complete, a regiment may be mobilized as soon as transport is available.

I assume that the expression "supposing that regiment is at full strength" means that no men are absent on furlough.

If I am incorrect, then all must depend upon circumstances.

Last year the 2nd Native Infantry was ready to move as soon as the Oudh and Rohilkund Railway authorities could form the necessary trains. The 25th Foot the same.

The 6th Native Infantry left Lucknow with similar despatch.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

To suit an Indian climate, the present clothing of British troops should be altered in material and in make.

For a winter campaign in Afghanistan our troops should be supplied with small tents, to be carried on mules, and iron tent-pegs, with the sheepskin coat of the country (*neemchas*); with warm underclothing of all descriptions and warm gloves; with water-proof sheets lined with blanket; and with extra blankets. Each cavalry soldier should carry below his girths a water-skin (*musuk*) capable of holding about one gallon.

The extra equipment having been supplied, it would take three days to mobilize a regiment in the Sirhind Division; because that is the shortest time within which transport cattle could be supplied by the Commissariat.

The troops could turn out ready for the field in three hours.

Lieutenant-General J. Forbes, Commanding Mhow Division.

I consider regimental mule carriage required.

(a) No remark to make.

(b) Warmer clothing in Afghanistan and for service in cold climates.

Major-General J. Ross, C.B., Commanding Presidency District.

A suitable dress of drab or stone color.

(a) Forty hours, provided the clothing, commissariat, and ordnance departments had everything ready.

*N.B.*—In a Native regiment men on furlough would be recalled by telegraph and join corps *en route*.

(b) *Burma.*—Would depend on marine department. Conveyance by steamer being procured and stores, &c., required supplied by departments, a regiment could embark in twenty-four hours. This was lately done in less time.

*China.*—The same, and in forty-eight hours.

*South-Eastern Frontier.*—In forty-eight hours, provided the Eastern Bengal Railway could supply sufficient carriages for a whole regiment in one journey.

There would, however, probably be a delay at Goalundo or Kooshtea, where difficulty would be experienced by marine department in arranging for conveyance by steamer;

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

A water-proof haversack should be worn by both officers and men: that at present in use by the men is unserviceable in wet weather, when provisions in them would be utterly destroyed.

All officers should carry revolvers. In the artillery, non-commissioned officers and drivers should be similarly armed. All revolvers to be of one general pattern.

A good water-proof sheet to be issued to every man. This might be worn in very bad weather by an opening being made in the centre. This could be laced up when used as a ground sheet.

Each small-arm ammunition cart to be provided with stout leather bags having leather covers. There should be one such bag per company, so that ammunition could be readily distributed to the troops in action. At present the reserve ammunition is generally issued from men's haversacks which should be otherwise employed.

Some commanding officers recommend a longer sword-bayonet than that now in use, with scabbard lined throughout with metal. The metal ends frequently come off the present leather scabbard.

Any corps of this force could be mobilized at the shortest notice.

Major-General R. O. Bright,  
C.B., Commanding Meerut Division.

For a European regiment a water-proof helmet cover and water-proof sheet, pair of stout leather leggings, clasp-knife, and small tin-pot. Native infantry are fully equipped. Artillery and cavalry, European, same as European infantry. Native cavalry are fully equipped, but should have a pony to every horse for foraging purposes.

I have no experience of Burma, China, South-Eastern Frontier. For Afghanistan European infantry the same as in the plains, except that *puttees* should be substituted for leather gaiters. One suit of light clothing and helmet cover, should be dyed khaki. In winter a warm suit of Native *puttoo* should be provided.

Native infantry should be supplied with *puttees* for service in Afghanistan, and, if in winter, should have *poshteens*. Artillery and cavalry, European, same as European infantry. Native cavalry require *poshteens* and extra ponies.

Every regiment is ready to proceed on service at the shortest notice. The only delay would be if carriage was required, which would be provided by the civil authorities.

Major-General H. R. Browne,  
Commanding Saugor District.

Camp equipment being at all times held complete in regimental charge, I do not know that (except as regards artillery who have generally to be supplied with their second line of wagons) any additional requirements exist for active service in the plains in India.

Of course, for service where the troops are likely to be exposed to severe cold and exceptional vicissitudes extra and suitable provision must be made, both for themselves and their followers, of blankets and articles of clothing. I do not quite understand the term "mobilize," which would ordinarily refer to the calling up of reserves. But if it refers to the time in which a regiment could be ready to move, twenty-four hours should complete all arrangements if the movement is by railway. If the regiment is to march, time must be allowed for collection of transport and supplies; and that will vary from five or six to fourteen days, according to the amount of transport required and the capacity of the district to furnish it.

Major-General J. W. Schneider,  
C.B., Commanding Northern Division,  
Ahmedabad.

(a) I can only speak as regards Native troops, with whom I have been closely associated for a great portion of my military career. The recent changes in the clothing and equipment of Native infantry, *viz.*, the Zouave uniform with the valise, leave little or no room for improvement. The dress of the Native cavalry is being assimilated to that of the Bengal army.

(b) A better description of great-coat is needed for Native infantry. The one issued on the present scaled pattern may do for the plains of India, but for colder regions the great-coat should resemble the one used by British troops; that is to say, the cape should come well over the shoulders to protect the chest and back. It should fold well over to give warmth to the stomach, and have the usual strap at the back to make it fit closely to the waist. It should come well below the knee. Native infantry should also be supplied with English ammunition boots. The present sepoy's double pal should be reduced to half its present size, so as to be carried more easily by mules. They would also be more suitable for small detachments and guards.

Troops in this presidency are ready to move at all times. For the plains of India, it is only a question of transport. For foreign service, a few days should suffice; but here, again, all would depend on the transport service, and the departments of issue being able to provide the usual warm under-clothing for such service. Regiments of Native troops contain many married men whose families generally live in the lines. It takes a short time to arrange for family payments.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

Brigadier-General H. H. A.  
Wood, C.B., Commanding Deesa  
Field Brigade.

Brigadier-General C. T. Alchison,  
C.B., Commanding Bombay District.

Brigadier-General F. G. Kempter,  
Commanding Ceded Districts.

Brigadier-General J. I. Murray,  
C.B., Mooltan Brigade.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

A regiment of British infantry at Poona could be mobilized in four or five days either to proceed by rail or road.

A Native infantry regiment might be mobilized in three days.

(a) European artillery—water-proof sheets.

European infantry—ditto.

Native cavalry—none.

Native infantry—khaki clothing for fatigue duties and English-made boots.

(b) European artillery—water-proof sheets and extra blankets for Afghanistan.

European infantry—ditto ditto.

Native cavalry—water-proof sheets, warm under-clothing and socks, with *poshteens* for Afghanistan.

Native infantry—ditto ditto.

(c) Not calculating furlough men, and with detachments at Ahmedabad, Baroda, and Rajkot, and railway open only as far as Ahmedabad, from 10 to 20 days. This applies to the brigade, the detachments being at unequal distances.

(a) The so-called Zouave uniform, similar to that generally worn by the Native troops in the late expedition to Malta, is about the best dress for an infantry soldier; it is easy, comfortable, and military. The valise equipment is decidedly more serviceable than the old belts and knapsacks, but there is still much room for improvement; in fact improvements are already spoken of (the Oliver equipment for instance).

Infantry should be supplied with two pairs of good English laced-boots.

For Natives the boots should be made to conform to the peculiar shape of their feet. It is strange how Native soldiers take to the ammunition boot. They should wear with them thick socks or bandages.

(b) Natives require a warmer great-coat for the cold months, also warm socks and gloves.

Provided the departments of supply are ready to comply with commanding officers' requisitions—

For service in the plains of India, troops would be ready to march in 24 hours.

For foreign service, would require from two to three days.

So far as the equipments for corps of the various arms, they are ample for the various services specified in question 1.

If the departments are provided with the equipments necessary for active service, a regiment in this district could be prepared to move by road or rail in 24 hours. The delay by road would be in carriage, as it would be necessary to apply to the civil authorities for such.

This would depend on whether the men were on furlough or not; but if all present, a few hours would suffice, provided the special equipments were in readiness.

(a) With the exception of water-proof sheets and the completion of the camp equipage, regiments should not require for campaigning in the plains of India, or in Burma, any additions to the clothing and equipment possessed by them in quarters. On the contrary, it would be necessary to reduce the ordinary kit by selecting such articles as might be most suitable for the special service, leaving those which were considered superfluous at the depôt. Each British regiment has in regimental charge two-thirds of its camp equipage; and as it would be necessary to leave in a depôt the sick, the women, and children, that quantity would probably amply suffice for the numbers who would take the field. The necessity for any addition to a soldier's kit for service *within* Indian limits would point, I think, to some radical defect in his clothing and equipment, which, if existing, should be rectified.

(b) As in Afghanistan, China, and all northern countries, the sepoy would have to be prepared to meet an unaccustomed degree of cold, it would be necessary to provide them with articles of warm clothing and a superior description of foot-covering to that which they generally wear.

The clothing of the British troops is, I consider, good and suitable, and requires but the addition of warm jerseys, drawers, gloves, and for extreme cold, fur or wadded coats, to enable them to meet without risk

\* Note.—A modification of the present uniform, which, though not altogether satisfactory, is an improvement on that now in use, was, on the recommendation of the Commander-in-Chief, sanctioned recently by the Government of Bombay, but has not yet received the approval of the Government of India.

any changes of climate to which they might be exposed. The same cannot, however, be said of the dress\* of the Native army of this presidency, which is in the highest degree unsuitable either for peace or war. It is neither ornamental nor comfortable; and, being tight-fitting, it is not possible to wear

warm clothing with comfort under it. A uniform for Native soldiers

which would be at the same time becoming and useful should, I think, be loose, and as nearly as possible approaching the style of clothes worn by well-dressed Natives who have not adopted European fashion. So inconvenient and unsuitable is the uniform of the Bombay Native infantry, that before sending them on service any where it would be necessary to provide them with a more appropriate dress. This army also has never had an authorized summer dress such as is universally worn in Bengal; and the great cost of introducing it in recent years, when, owing to famine and hard times, the sepoys were ill able to meet any extra charges, has prevented action being taken in the matter, although His Excellency the present Commander-in-Chief has initiated a commencement of this desirable reform. An assimilation of the dress of the Bombay Native infantry to whatever pattern of clothing has been found most suitable by the regiments which have recently been on service, and the grant of a small sum towards purchasing a summer dress for the sepoys, is most desirable, in order that, when called on for service, the additional requirements to complete their clothing and equipment may be few, and easily and rapidly supplied. Of even greater importance than the style and material of the dress of the Native soldier is the description and quality of the boot or shoe which he wears; but though this subject has probably been more frequently considered, and experimented on, than any other connected with the equipment of the Native army, a remarkable diversity of opinion still exists and no practical conclusion has yet been arrived at. Many officers of the highest knowledge and experience are convinced that the proper shoe for a Native soldier is the shoe worn by the class from which he comes; and the conclusion is sound so long as nothing more is required of him than of them. When, however, the Native of India is taken out of his own country into a climate such as that in Afghanistan or China, where he is called on to face a cold and a set of circumstances unknown in India, the arguments which are urged in support of the advantages of the Native shoe over that of European pattern cease to have any force. The objection to the English form of boot for a Native is that, in using it, he becomes footsore, which no doubt is often the case, as heretofore he has always been obliged to wear a boot made for a European foot and on European models, which is quite unsuited to him. The question of a foot-covering for Native soldiers was some time ago taken up and examined

\*Lieutenant-Colonel Heathcote, 12th Native Infantry.

and offer a more satisfactory solution of this vexed question than any I have yet met. Colonel Heathcote's views and the information he had collected appeared so valuable to the late Commander-in-Chief (Sir Charles Staveley), that he directed them to be published for the benefit of the officers of the Bombay army, and a copy of that portion of the report which was published is appended:—

*Extract from report, dated 13th October 1877, from Lieutenant-Colonel C. T. Heathcote, on the fitting of boots, &c.*

\* \* \* \* \*

The great difficulty in obtaining properly fitting boots for the Native soldier is caused by their being made either on English lasts, or at least on lasts made in India from the English model.

\* \* \* \* \*

The Native soldier, however, finds these English-shaped boots so much too small for him across the joints of the toes, that in order to get the requisite breadth there, he is obliged to choose them far too large for him in every other respect.

\* \* \* \* \*

According to the British scale, No. 5 size is 10 inches in length, No. 8 is 11 inches, and No. 11 is 12 inches in length.

\* \* \* \* \*

The difference between lasts prepared for a Native foot and lasts made for the British soldier is very marked, the Native infantry last being generally one inch broader in the joints and half an inch larger in the instep in the same length of foot. The great toe also comes out much straighter from the foot in Native soldiers, and therefore requires a different shape to be given to the sole of the boot; the toes also, being naturally set wide apart, necessitate a greater breadth in the toe of the boot: hence arose the question how to give sufficient space without making the boot look heavy and ugly. This difficulty will be overcome by sloping away the sole from the front towards the little toe or outside of the boot.



The total number of boots in a full set is 48; but I think this might be decreased to 38, by reducing 10 in the first six sizes, which are very seldom required, those in the most general use being Nos. 7, 8, 9, and 10 sizes.

The lasts of the sample boots which accompany this report were made by Messrs. Ullathorne and Co., 12, Gate Street, London, W. C., with whom I have left instructions regarding the peculiarity of shape required for the Natives of this country. They are prepared to make these lasts according to the specification attached for one shilling and ten pence a pair; and should His Excellency approve of the specification, a copy of it can be furnished to them for guidance in making the lasts.

## SPECIFICATION.

*Universal scale of sizes for lasts, lengths and magnitudes, for all boots and shoes for N. I. Regiments, East Indies.*

Sizes.	Magnitudes.	Joints.	Instepts.	Sizes.	Magnitudes.	Joints.	Instepts.
1	1	8 inches	8½ inches.	7	7	9½ inches	10 inches.
8½ inches ...	1	8½ "	9 "	10½ inches ...	7	9½ "	10½ "
		8¾ "	9½ "			10 "	10½ "
		9 "	9¾ "			10½ "	10¾ "
2	2	8½ inches	8½ inches.	8	8	9½ inches	10½ inches.
9 inches ...	2	8½ "	9 "	11 inches ...	8	9½ "	10 "
		8¾ "	9½ "			10½ "	10½ "
		9 "	9¾ "			10½ "	11 "
3	3	8½ inches	9 inches.	9	9	10 inches	10½ inches.
9½ inches ...	3	8½ "	9½ "	11½ inches ...	9	9½ "	10½ "
		8¾ "	9 "			10 "	11 "
		9 "	9½ "			10½ "	11½ "
4	4	8½ inches	9½ inches.	10	10	10½ inches	10¾ inches.
9½ inches ...	4	8½ "	9½ "	11½ inches ...	10	9½ "	10½ "
		8¾ "	9¾ "			10½ "	11 "
		9 "	10 "			10½ "	11½ "
5	5	9 inches	9½ inches.	11	11	10½ inches	11 inches.
10 inches ...	5	9 "	9½ "	12 inches ...	11	10½ "	11½ "
		9½ "	10 "			11 "	11½ "
		9¾ "	10½ "			11½ "	11½ "
6	6	9½ inches	9½ inches.	12	12	10½ inches	11½ inches.
10½ inches ...	6	9½ "	10 "	12½ inches ...	12	11 "	11½ "
		9¾ "	10½ "			11½ "	11½ "
		10 "	10½ "			11½ "	12 "

These lasts to be made similar to those supplied to the War Office, with the following exception. They should be low in the instep, and not much hollowed out underneath—broad at the joints, and straight in the great toe.

This question is best replied to by the following statement of facts.

The official orders for the batteries and regiments to proceed to Malta were issued on the 18th April 1878; and they left their stations for embarkation on the 23rd, 24th, 25th, and 26th of the same month.

The batteries which were quartered in Sind and proceeded to Cabul were reported ready to march fourteen days after receiving the order of readiness.

In all the above cases the regiments and batteries had to be made up to their full strength by volunteers from other corps; and in the case of the artillery, horses had to be supplied to complete the war establishment, and replace all those not considered thoroughly efficient for service.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
 lately Commanding a Brigade.

(a) I consider the present equipment very well suited for the plains of India.

(b) I would suggest a lighter kind of tent for Afghanistan and for any hilly country. Those issued to the camp-followers in the late campaign would be very useful for the troops for a short time and in very bad country where camels could not go.

It is impossible to say how long it would take to so mobilize a regiment, as I have had so little experience in the plains of late years. I know that it takes nearly a week, in the present system, to move a regiment of Goorkhas in our hill stations.

Colonel H. K. Burne, C.B., Secretary to Government of India, Military Department.

The extra clothing and equipment depends much on season and circumstances.

Usually every soldier or follower sent on service to Burma, China, or South-Eastern Frontier should be supplied with one pair boots or shoes, two pairs warm socks, one pair leg-bandages, one water-proof sheet; and each follower should have an extra blanket in addition.

In the plains of India leg-bandages or gaiters might be dispensed with.

For service on the north-west frontier in very advanced positions such as Afghanistan, or in severe climates, the men should have in addition, but omitting leg-bandages—

- 1 jersey,
- 1 extra blanket,
- 1 pair mittens,

and wadded coats or *poshteens* at, say, 15 per cent. of strength for guard and sentry duties.

The question of equipment generally is now being considered by a specially selected committee.

Colonel J. Macdonald, C.B., Secretary to Government, Bombay.

(a) I do not think any thing more is requisite than what is now possessed by the troops, if employed on active service in the plains of India or in a climate similar to that of India. Probably some of the ordinary kit of the soldiers, both European and Native, might be found not absolutely necessary.

(b) But for a campaign in cold or excessively wet countries beyond India, special warm clothing, such as jerseys, socks, drawers, mittens, gloves, comforters, or woollen wraps, and water-proof sheets, should be issued to both the European and Native soldiers. One important item of the Native soldier's dress requires special care, in order that what is thoroughly suitable of the kind may be provided, *viz.*, the boot. The boot for the Native soldier, as now made, generally causes the men to become footsore. This arises from inattention to the marked difference between the feet of Europeans and those of Natives of India. The feet of most European soldiers are more or less distorted from wearing, when young, shoes which cramped the foot. Amongst Natives, on the contrary, a shoe is worn but occasionally, and is of a form which prevents the foot being distorted. If the upper portion of the foot needed no special protection, nothing could be better than the Marathi *powdee*, or sandal; but as the soldier's foot must be protected all over, the European shoe, made to fit the foot easily and evenly, is the best protection that can be devised. Colonel Heathcote of the Bombay Army has, I believe, gone thoroughly into this matter, and has submitted some very practical recommendations on the subject to Army Headquarters.

The dress of the Native soldier serving on this side of India is not satisfactory. Attempts have been made to improve the uniform, and make it more suitable to the wearer. But these attempts to secure a better style of dress have up to the present date proved unsuccessful, owing perhaps to similar efforts in other quarters not having gained the desired end, owing also to the intended improvement involving some slight increase of expenditure.

The mistake, I think, is in attempting to make a Native soldier in appearance an exact imitation of the British soldier. It is an open question whether the British soldier is even now suitably dressed; but there is no doubt in my mind that the Native soldier's uniform requires considerable alteration. The tight-fitting tunic and trousers are quite unsuitable, and instead a looser garment, partaking more of the characteristic of ordinary Oriental costume, should be adopted.

It was said some years ago, when a modified Zouave costume was proposed as the dress of the Native army, that it would be very inexpedient to attempt so radical an alteration, on account of the suspicion and disquiet that would be engendered in the minds of the men! I think it may be admitted that the time has now arrived when the Native army would accept without suspicion or dislike any style of clothing which would add to their efficiency, so long as it was sufficiently distinctive to ensure their being recognized as soldiers in the service of Her Majesty.

From a week to ten days. This time might be required to bring batteries up to their war establishment of horses, which under existing circumstances can only be effected by drafting them from other batteries and also to admit of the volunteers for regiments being collected and incorporated.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

The additional requirements of corps proceeding on active service are—

(a) Additional horses for horse and field artillery, as at present sanctioned; extra hospital establishment and doolie-bearers; camp equipage according to the season of the year; commissariat establishment. Organized transport is most necessary for the above. In addition, a suitable dress for service (treated of hereafter in reply to query 17).

However, when troops are merely required for political demonstrations, and fighting or prolonged absence from quarters is not anticipated, I should move troops with reduced equipment.

(b) Same as above, but organized transport (again most necessary) suitable for the different countries, and depending on the nature and supplies of transport obtainable.

In Afghanistan, camels, elephants, ponies, and mules.

In China, wheeled carriage (imported), where country admits of it. Coolies in other parts of the country.

In Burma, coolie transport.

Patterns of carts and harness for wheeled carriage; boxes for siege, heavy, field, and mountain artillery ammunition; slings for small-arm ammunition; saddles, pads, and slings, all tested and approved, should

be kept in every arsenal in view to being made up when required; but a reserve of each should at all times be available and kept ready for urgent and immediate issue.

Experience has been gained on all the above points; boxes made and tried for carriage of ammunition under different conditions; and I consider that, with our knowledge fresh, no time should be lost in settling definitely the various patterns for future use.

For coolie transport, it was found in China that, to enable the guns and stores to keep up with the infantry, no loads should be beyond the easy carrying-powers of four coolies at an average of 50lbs. each. It will of course be better if they can be arranged for two men. Any excess, however, over four was found to impede materially the movements of the column; and when in command of columns, I always, as far as possible, arranged for loads of 100 lbs., and not exceeding 200 lbs.

This should be borne in mind when fixing loads for coolie carriage in mountainous or hilly districts.

I have no experience as to how long it would take to mobilize a regiment for the various services; but it must mainly depend on the provision of carriage and transport required.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

(a) I have not sufficient knowledge of the requirements of cavalry and artillery to give a reliable opinion as to what additions to their equipment would be desirable, except in so far as my recommendations for infantry would apply to all arms.

#### *Tents.*

I think that the cumbersome European privates and staff sergeants' tents might be given up, except for standing camps or for hot weather campaigning. For all marches in the cold weather I think that roomy pal-tents, with double flies, might with great advantage be substituted. They should be lighter and less cumbersome than the present sepoy pal, which requires an immense number of pegs to pitch it properly. Poles might with great advantage be made in two pieces, with strong iron sockets. If properly made, they would not be liable to break; while they would be much more easily carried than the present long poles, which are most awkward to carry even on camels, and hardly possible to carry on mules.

The tents might be so constructed, that the sections could be carried by mules, if necessary; although carts or camels would be the ordinary means of transport in the plains of India.

#### *Cooking utensils.*

Cooking utensils should be made so as to fit conveniently into either mule or camel kajawahs. They should also fit into each other, in such numbers as could be readily carried by mules, and would balance properly. This being done, they would of course be equally easily carried by camels or elephants.

#### *Men's kits.*

Men's kits should be so packed as to be more compact than at present.

#### *Ammunition.*

Every regiment should undoubtedly have its own train of mules or ponies for the reserve ammunition. Baker Pasha describes how well provided the Turks were in this respect. Distribution of ammunition on the field should be frequently practised by all regiments.

#### *Accoutrements.*

I strongly advocate the abolition of pipeclay and blacking, and the adoption of brown leather belts with bronze mountings. They could be cleaned with soft soap, and, if properly cared for, would look well and last long. The present expense pouch is very bad. It swings about; is apt to tear away from the belt; and ammunition is very apt to be lost out of it. A number of pouches distributed along the waist-belt, made of sound but not too stiff brown leather, and easily opened, would make the weight much less felt, while the packets of ammunition could easily be got at.

For loose cartridges the sort of "bandoleers" carried by the guide infantry are the best I have seen; and I think the plan should be universally adopted. The ammunition is safely carried and very easily got at. The "plastron" on which the "bandoleers" are sewn should be removable, and capable of being fastened by buttons to any coat, including the great-coat.

#### *Water-supply.*

For marches where water is scarce, it should be carried in casks, which are cleaner and less liable to leak than *puckals*. The soda-water bottle carried by the soldier is nearly useless. It is heavy, fragile, inconvenient in shape, and holds very little; while water soon becomes

heated in it. A semi-circular and somewhat concave bottle made of ebomite or vulcanite, and covered with felt, is the best vessel for carrying liquids and keeping them either hot or cold.

Next to this the Afghan tin water-bottle, also covered with felt, is about the best I have seen.

#### *Supplies.*

The carriage of supplies is a most important subject. The march of troops is constantly delayed by want of system in this respect. All bags or boxes containing stores for consumption should be of such weight and size as to be easily carried by pack-animal. At present heavy loads are very inconvenient to carry, and animals are constantly throwing their loads in consequence.

#### *Dress.*

I look upon the present infantry tunic as a very bad coat. It is badly cut, made of hard stiff cloth, and confines the movements of the wearer. It is a notorious fact that, to give a single instance, men cannot shoot properly in tunics, it being absolutely impossible for them to get the butt of the rifle into the hollow of the shoulder. It is universally admitted that khaki is the best color for service; and every regiment should have one warm and two light suits of that color. The warm suit might be of Kashmir *putloo*, or warm serge. If the former, orders should be given for large quantities of it, so as to enable the wool to be well mixed and the whole cloth thereby woven of one color.

It might be more economical to dispense with the warm khaki suit, and allow the ordinary serge suit to be worn under the light khaki in cold weather. This plan, however, although convenient enough as regards the coat, is not equally so in the case of trousers, two pairs of which must considerably interfere with a man's movements.

The best sort of coat is a loose Norfolk jacket, giving perfect freedom to the arms. Trousers should be cut loose at the hips and knee, and tight round the ankle.

On the march it is best to tuck them into the socks, and wind Kashmir bandages or *puttees* spirally round the leg from ankle to knee. These are more easily removed or put on than any gaiter; and they are more comfortable.

A thoroughly good boot for the British infantry soldier has yet to be invented; but after a long trial I have come to the conclusion that there is no boot so well adapted to the cavalry or artillery soldier as the pattern known as "The Elcho." It is equally good for walking or riding; it is extremely comfortable; it can be easily put off or on, even when wet; and it looks neat and serviceable.

The above remarks are intended to apply to British troops; but I consider that most of them are equally applicable to Native troops. They would be more comfortable and would look better in Norfolk jackets or blouses than in the short jackets which are usually worn, and which are, in my opinion, neither handsome nor serviceable.

(b) Of Burma and China I have no knowledge. In Afghanistan my recommendations for the plains of India would generally hold good; but on account of the hilly and rocky nature of the country I would recommend that as regards—

#### *Tents.*

Small pâl tents made of two folds of American drill dyed khaki color, with jointed poles of male bamboo and iron tent pegs, should be substituted for the larger pâls which I propose for use in India. Each tent should cover a space of about 8 feet square, which would afford sleeping accommodation for four men.

Mule carriage only should be provided for the conveyance of these tents and also of men's kits, and such supplies as would be likely to be required off the line of road.

For these mules (or ponies) proper pack-saddles should be supplied. The commissariat or Yarkund pattern with wooden and iron tree is by far the best. If properly stuffed, they never give sorebacks.

The native *patana*, or any modification of it that I have seen, is constantly getting out of place. The pressure of the load comes upon the spine, and speedily renders the animal useless; or loads slip off and cause endless delay.

#### *Dress.*

For a winter campaign in Afghanistan additional warm clothing is necessary. A good thick guernsey, extra thick warm socks, and a "Balaklava cap" for sleeping in, would probably meet all requirements.

A proportion of good roomy *poshtoons* for guards would be very useful; but I do not like them for marching or ordinary duties.

On the South-Eastern Frontier the following modifications of equipment recommended for the plains of India would be desirable:—

*Tents.*

Instead of tents, which become heavy and ultimately rotten in the damp and rainy climate of the South-Eastern Frontier, it would be well to substitute water-proof sheets and paulins, which can be stretched over frames of bamboo or cane, which are so readily procurable in those regions.

*Ammunition.*

As mules or ponies are quite unsuited to the climate, and could not be taken in most places, reserve ammunition should be carried by specially enlisted and trained coolies. They and elephants should be the only carriage employed, except where water transport is possible.

*Dress.*

A warm suit would be unnecessary; but a third suit of American drill might be substituted.

Each man should be supplied with a water-proof coat; and extra heavy coats with "sou-westers" might be provided for sentries.

According to the present scale, a regiment could not be efficiently mobilized with three days' provisions at Lundi Kotal within a week. It took a week to procure sufficient carriage for the 17th Regiment to move to Peshawar on the 14th August. The difficulties of maintaining transport animals in an efficient state at Lundi Kotal are very great.

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

Regiments of Bengal cavalry, as well as all regiments and batteries of the Punjab Frontier Force, appear to need few additional requirements. All British regiments and batteries require—

- (1) light serviceable tents for all ranks;
- (2) water-proof sheets;
- (3) entrenching tools;
- (4) *kajawahs*;
- (5) slings\* of leather or gunny in which to carry the boxes of ammunition;
- (6) properly constructed cooking-pots, as those now in use are not suitable for mule carriage and require constant tinning;
- (7) transport.

All regiments of Bengal infantry require—

- (1) light tents for officers;
- (2) slings\* of leather or gunny in which to carry the boxes of ammunition;
- (3) entrenching tools *suited to the habits of the men* (not only spades and picks), composed of (a) *phowrahs*,† (b) picks, and (c) axes;
- (4) *kajawahs* for carrying them;
- (5) an addition to their rations of *rum* or *tea*, sugar,‡ spices, and tobacco, to be supplied by the commissariat at all times on payment; also onion or garlic;
- (6) water-proof sheets;
- (7) woollen socks, gloves, and jerseys, if in a cold climate;
- (8) transport.

With regard to the provision of *suitable* entrenching tools—a point which, I venture to submit, has not received sufficient attention—no one would think of giving a Native a knife and fork to eat his dinner with; and yet he is provided with spades and shovels (implements that he has never seen until he joined the service, and with which he has only a few days' practice yearly while he is in the ranks) with which to throw up entrenchments to assist in the defence of India, in place of being given that most useful of tools—the *phowrah*†—which he has been accustomed to handle and use from his earliest childhood.

The question regarding the provision of light camp equipage is also, I would submit, worthy of much consideration.

\* A sufficient number of these slings for the mule carriage of the first reserve should be in possession of every regiment. The pattern recommended by the Simla Committee of July 1879 is the best.

† Lord Napier of Magdala and Sir Frederick Roberts both know the value of the *phowrah* or mamootie.

‡ During the China war of 1860 the men received free—

	lbs.	oz.
Rice or flour	2	0
Dhall	0	4
Ghee	0	2
Salt	0	½
Firewood	2	0
Turmeric	0	½
Sugar	0	3
Pepper	0	¼

Meat twice a week.

Tobacco, ¼ oz., might be taken instead of sugar, if preferred.

*Rum*, *opium*, and *tea* were issued on payment; also onions, garlic, tamarinds, and chillies when on boardship.

The above scale should be sanctioned in general orders in supersession of the present reduced scale.

The present large tent, known as the "European privates' tent," is costly, heavy, and unsuited for a campaign, even in the plains of India.

A tent exactly similar to the present sepoy pâl, but provided with an outer fly, is in every way suitable for the shelter of British soldiers in the plains of India, and is at the same time lighter and cheaper than the large tent now in use. For forced marches in the plains, or for service in the hills or anywhere beyond the actual base of operations, the outer fly would be left behind.

I would therefore suggest that all regiments of British infantry and cavalry and batteries of artillery be provided with these tents as quickly as they can be made up either new, or by cutting down and altering the present large ones; also that the present sized European privates' tent be no more used except for hospitals in the second line, or at the base, when on service, or for camps of exercise. I would further suggest that these pâls be made in two sizes, so as to enable shelter to be provided for detached pickets, &c., on service, as well as for guards and escorts; and also that this be made applicable to Native infantry regiments as well as British.

I maintain that a pâl, with an outer fly, affords just as much comfort in *all* weather as a European privates' tent, besides being cheaper and more serviceable in every way; and their adoption will result in increased efficiency, combined with decreased expenditure.

## 2. Is the present organization adapted to the requirements of troops on active service?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

I do not touch on the question of the organization of British troops, because it is now under consideration in England. But I may say generally that the regimental organization is satisfactory; all that is needed is a proper machinery for maintaining regiments at their established strength. Assuming that the question here put refers to regimental organization, I consider that the present system, so far as it goes, is practically sound. The main defect is its want of elasticity. The regimental units are too small for war, and there is absolutely no arrangement for increasing regiments, save by recruitment, when war breaks out. The defect here mentioned is capable of remedy in various ways. But my idea is that our army in India should always be on a war footing. That is, it must always be prepared for war in every respect except transport. It is a mere truism which cannot be blinked; and we should drop out of sight the term "peace establishment" as understood in national armies. It is not to be inferred from this that I advocate the establishment of bloated armaments. Far from it. I should like to see the armies of India reduced to the lowest figure compatible with perfect security; but every unit of that army should be a complete fighting machine, requiring nothing but the motive-power to set it going. To effect this object, our regiments must be increased in strength, and their numerical number must be reduced. As the strength of the army must at all times be equal to the maintenance of peace and order within our own borders, it may be assumed that it will be capable of crushing any opponent within these limits without adding a single man to our ranks. It may be noted that I am not taking the question of external war into account, and by external war I mean war with countries not conterminous with India. I do not think India is bound to maintain warlike establishments for the purpose of meeting the contingency of external war. If, however, the theory of a peace establishment is to be admitted, it must involve many radical changes—changes which I need not here speak of, as they will no doubt be better dealt with by those who advocate the system aimed at. Before quitting this subject, I would beg to say a few words on the question of reserves, as it is very generally considered essential to the efficiency of any standing army that India is likely to keep on foot. If we are prepared to disturb the existing pension arrangements, we might secure a class of reserve men who would be sufficiently trustworthy and perfectly capable of taking the place in garrison of the regular troops in time of war. The following arrangements would provide reserves on a principle which is not open to serious objections—

- (1) recruits to be enlisted for ten years only;
- (2) soldiers who are in all respects unexceptionable to be allowed to re-engage for a further period of five years;
- (3) men who are still fit for service and likely to continue so to be passed into the reserve on the completion of the second period of engagement, unless they have intermediately become non-commissioned or commissioned officers;
- (4) after a service of fifteen years in the reserve soldiers to be entitled to pension;

- (5) men becoming unfit for further service in the reserves after periods of five and ten and under fifteen years respectively to be discharged with small gratuities;
- (6) commissioned and non-commissioned officers to be entitled to pension after 26 years' service on full pay. Men entitled to pension should have the power of claiming them at will, and commanding officers should be empowered to enforce retirements at will.

The strength of the reserves could be regulated from time to time by the Government, as no man should be allowed to claim admission to the reserve force as a right. The regimental reserves should invariably be kept together and formed into companies; the companies of two, three, or four battalions being formed into regiments for training and duty when called out. After a few years' training the men would know each other, and work harmoniously together. These reserve battalions would naturally and usually be employed in their own provinces; though they would be required to serve in any part of India in case of need. The training and organization of these reserve battalions are matters of detail; and I do not here enter on them, as I have already written more than most people will care to read. They are, however, very important matters of detail, and require much consideration.

Lieutenant-General C. T.  
Chamberlain, C.S.I., late Com-  
manding Oudh Division.

Most certainly it is *not!* Deducting sick, escorts, guards, and depôt requirements (which include sundry distinct recruiting parties, composed of the best non-commissioned officers and men from each of the classes represented), regiments can only parade in "skeleton form" at the commencement of a war; and there are no reserves!

The composition of most corps necessitates enlistments from districts scattered far and wide, causing not only inconvenience, but also considerable delay. There is *something*, of course, to be urged in its favour, because it was deliberately adopted after much consulting and writing; but I myself have always ventured to hold a very opposite opinion, and I have no hesitation in saying it is *unwholesome*.

As in the old Bengal army the mischief arose from all the 74 regiments being composed of one class, so now-a-days two-thirds or more of the existing battalions are so similarly represented by mixing up Sikhs, Pathans, Punjabis, Hindustanis, and so on, that there is much reason to apprehend that, in time of popular disturbance, many regiments would be contaminated by the general friendship which has come to spring up by years of association; and one corps could not be pitted against a disaffected one with the confidence that would exist if class regiments (*and especially local regiments*) were the rule instead of the exception.

Field operations had not commenced in the North-West ere desertions occurred amongst the Afridis and Pathans, who had no stomachs for fighting their own kith and kin.

Throughout the war, there has been an unpleasant feeling of want of confidence in those classes. It is only human to object to fight one's own relations and friends, and it is therefore not so much the fault of the men (if their national sympathy overcame their allegiance) *as the system!*

What has happened amongst the Afridis and Pathans may any day occur amongst the Sikhs, or others, if similarly tried; and it is needful now, when a special commission is scrutinizing "army reform," to go well into this question of organization which is valuable or valueless, according to the stability of the *sub-structure*.

No one will deny that the fidelity of the bordermen was tremendously strained; and had the fate of the sword been against us at the Peiwar or Ali Musjid, what would have become of the Pathans in our ranks at those places?

It is hard upon them to hold them at a discount as they are at present; for if employed *anywhere but against their own kith and kin*, they would render admirable and faithful service as they have done for years past.

(b) *The present organization necessitates extra transport*; for Brahmans, Sikhs, and Pathans require separate cooking vessels.

It is worth while considering now-a-days whether the former class could not be considerably decreased in numbers. The different sects of Brahmans do not eat together! There are Doobees, Trebadies, Opadiahs, Chowbeys, Missirs, Awusteers, Tewarries, each and all of whom eat separately; and it can hardly be a happy state of military organization if their peculiar fancies are to be acknowledged and provided for.

Anyhow it would be well to endeavour to dispense with as many iron buckets and other weighty "necessaries" (so-called) as possible.

This matter of organization will again be discussed in answer to question 7.

Lieutenant-General W. T. Hughes,  
C.B., Commanding Sirhind Division.

I think not; it does not ensure the presence with the colors of all the British officers of a Native regiment when that regiment takes the field.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

Yes, with the exception of transport; and I do not consider the number of European officers with Native regiments sufficient.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

No, there are wanting the means of supplying troops in action with the first reserve of ammunition.

The same with entrenching tools. A scale of dbaos and bill-hooks to be carried on service in Burma and South-Eastern Frontier.

Major-General A. H. Macintyre,  
C.B., Commanding Hyderabad  
Subsidiary Force.

The present organization of troops of the British service is satisfactory.

In regiments in the Indian service I consider the number of European officers too small to meet the requirements of troops on active service.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

Yes, I consider it is.

Major-General H. R. Browne,  
Commanding Saugor District.

I think not. The troops assembled for active service have no previous relations with each other, nor are the staff of divisions and brigades previously acquainted with them. In point of establishments I think requirements are exceeded. The troops could well perform many of the duties in which they are now assisted. The transport service requires better organization.

Major-General J. W. Schneider,  
C.B., Commanding Northern Division,  
Ahmedabad.

In my opinion, the present organization is not adapted to Native regiments for foreign service, owing to the paucity of British officers. The evil is fully recognized by those who have served with and commanded, and who understand, Native troops. We are endeavouring to place a responsibility on Native officers for which they admit and generally show themselves to be unfit. I believe that no education or training will make the Native officer a substitute for the British officer. They rise from the ranks, and, when once they throw off their uniform, they mix on social equality with other grades. The suggestion that Native gentlemen should be granted commissions direct into Native infantry regiments can only have arisen from a misconception of the feelings of that class. The Native chief or landowner rides from his earliest youth: to walk is the mark of inferiority.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

In my opinion, the present organization of the Native infantry regiments is not adapted to the requirements of troops on active service.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa  
Field Brigade.

The Native regiments are, in my opinion, under-officered (European). Lord Napier of Magdala, who advocated what is termed the new organization, was, when the time came, afraid to put it to the test, as shown by officers being attached to those regiments employed in the Abyssinian campaign.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay  
District.

Yes, as regards British troops, although I would prefer the regimental unit (a company) double its present strength.

If a British regiment was 1,000 rank and file strong instead of 800, a considerable saving would result, as some 8 or 10 regiments might then be sent home.

As regards Native troops—I am referring of course to the army of this presidency—I do not believe that the Native infantry officer is, as a rule, competent to command a company on service, unless under the eye of a British officer.

I consider one British officer to every company in the field absolutely necessary.

I have no confidence whatever in the present organization for the field.

Brigadier-General F. G. Kempler,  
Commanding Ceded Districts.

This opens out a large question, and one which has been so fully discussed, that it seems superfluous to go over the same ground, it having been determined to maintain the present organization (in Native regiments); but my opinion is, that the present number of European officers in Native regiments is totally insufficient to sustain the strain of war.

In time of peace, the ordinary duties in garrison can be carried on with the present number, so long as the regiment is not split up into detachments.

The Native officers as a body are much improved, and show a greater degree of efficiency than formerly; but when difficulties and responsibilities arise, I doubt their being equal to the occasion.

If the present strength of European officers is to remain so, the only plan is to have linked battalions, the battalion remaining in garrison to supply the battalion going on service with extra officers; or double up the present weak battalions and make one strong regiment. By so doing greater efficiency would be gained and a great saving of expense to the State.



Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

I presume that this question refers to army, not regimental, organization.

We can hardly be said to possess any organization for war specially; but, as a rule, owing to the exertions and experience of individual officers, an organization, which meets the requirements, is after a time established and works better than might be expected. Spread as the army of India is over a vast extent of country, the process of collecting a sufficient body of troops in peace time to test and practise in army organization is so costly, that such opportunities can be but rarely offered. Replying to this question, I would say that, up to the present time, any success that may have been achieved in war has been the result rather of individual energy, knowledge, and zeal than of any pre-arranged organization.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

No, I don't think that it is. The number of British officers with Native regiments is too few; and each Native infantry regiment should have 800 privates always.

Colonel H. K. Burne, C.B.,  
Secretary to Government of India,  
Military Department.

Yes, except that regiments of the Native army are too weak for any protracted service after allowing for depôts and casualties.

Colonel J. Macdonald, C.B.,  
Secretary to Bombay Government.

The present army organization, such as it is, and which exists more with reference to the ordinary needs of garrison duty carried out by body of troops scattered over a very great extent of territory, can hardly be considered as suitable for war. Practically, however, by the exertions of those entrusted with the duty, the troops, when assembled for operations in the field, are brought together under an organization which has hitherto given satisfactory results. Troops reduced to the lowest strength and detached at great distances necessarily are not under such favorable conditions as those that are brigaded together, with all equipments and requirements for field service, though not actually in charge of each corps, yet easily obtainable.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

No; I do not consider it is.

It may answer very well for small expeditions requiring only a few battalions and batteries; but for anything like the last Afghan campaign, for example, it is quite unsuitable.

There is no fixed organization. Regiments are often taken from great distances; divisions and brigades are formed for the first time, new to the commanders; changes necessitated by the exigencies of the service are frequently made while in the field.

The evil results of this would be more felt if opposing an organized enemy. This may or may not be the case in future; but at any rate our organization ought to be such as to enable us to be prepared for such a contingency.

I consider the advantages of an organization which would enable a brigade of all arms to take the field complete in itself, each branch well acquainted with the others, as also well known to and by its commanders, to be so self-evident as to need no comment. For service in India, external or internal, where large forces are not required, brigades will, as a rule, require cavalry with them.

Colonel D. Standen, Assistant  
Adjutant-General, Burma Division.

On account of the insufficiency of British officers with Native regiments, the present organization is ill-adapted, I consider, to the requirements of troops on active service. There should certainly be additional subaltern officers to each regiment in the Madras army, owing to the unavoidable plethora of field officers. Wing-commanders are far too old. The average length of service of the 2nd-in-command in Madras Native regiments is  $27\frac{1}{2}$  years, of wing-commanders  $25\frac{1}{2}$  years; and we have many wing officers, field officers of 21 and 12 years' service, performing the duties of subalterns.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Quarter-Master-  
General.

The establishment of regiments, British and Native, in India is suitable as a peace establishment only. There is no provision for depôts or expansion in the time of war. The European officers with Native regiments are too few, as the efficiency of these regiments when in action depends entirely on "British leading."

Major A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

No, I do not consider that it is. I think that a regiment should be more independent, every regiment having its own transport, and animals, drivers, &c., under the immediate control of the commanding officers.

At present men have no opportunities of practising marching with baggage, &c., as when on service. There is no proper organization for the supply of ammunition.

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

The organization is suitable in so far as regards divisions, brigades where they exist, regiments of British cavalry and infantry.

The constitution of the regiments of Native infantry is faulty in the extreme and totally unsuited to the requirements of active service, as has been clearly proved during the Umbeyla, Bhutan, Lushai, Abyssinian, and Kabul campaigns. Paucity of European officers and the want of a depot or reserve battalion are the two great blots which have been repeatedly and prominently brought to notice by English, Russian, French, and German writers.

The Commissariat Department not being capable of expansion, and not being properly subordinate to general officers commanding, is but ill-adapted to the requirements of troops on active service.

The head of the department should be selected on account of his superior attainments, not on account of his length of service.

3. Can you make any suggestions for improving the efficiency of the—

Staff,  
Troops,

Departments ...

{ Commissariat,  
Transport,  
Medical,  
Veterinary,  
Ordnance,  
Engineers,

on active service ?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

*Staff.*—There can be no doubt, I think, that the service would gain by the amalgamation of the Adjutant-General and Quarter-Master-General's Department. As a matter of fact, during the present campaign, my chief staff officers in these departments have worked together in the same office: they consult together on all important points, and they see each others correspondence. The consequence of this arrangement is apparent in the smoothness and regularity with which the business of the force is carried on; and the absence of one of these officers does not cause delay, as the other can take up the threads of a case at once. Moreover, the duties of these departments are in many respects so closely connected, that there would be much economy in amalgamating them. If the Quarter-Master-General's Department continues to be charged with all the duties now devolving on it, every division of the army would require two staff officers, one being the deputy of the other. In the field the brigade-major could, in addition to his present duties, perform all those of the Quarter-Master-General's Department in his own brigade. These views apply with equal force to staffs in quarters.

*Troops.*—The most obvious defect in the efficiency of troops ordered on service is the want of defined tables of establishment and equipment. Whenever troops take the field, the authorities are worried with the consideration of these matters; and nobody knows what his men are entitled to, and every branch presses for concessions in kit and carriage as well as extra establishment. In this campaign it has not been possible to make monthly settlements with the men of Native regiments, owing to the indefinite nature of the orders in force regarding carriage

and supplies. It is not known to the present day whether the men\* are to be charged with the cost of carriage for their kits; and yet we have been nearly twelve months in the field! I think the scale of equipment considered suitable for service in hot, moderate, and cold climates should be fixed and published; and it should be clearly laid down what would be supplied by the State and what by the troops and followers at their own expense. Rules should be laid down for the supply of Native cavalry serving in countries where they cannot subsist themselves. Clear rules on these subjects would save the public from charges which ought to be borne by the soldier, but which are generally paid by the State in the end, owing to the delay and difficulties in obtaining a settlement of accounts at the termination of a campaign.

*Commissariat.*—It is quite impossible to do justice to a subject of this magnitude in a sketchy way; and it would require more time than I can devote to it, even if I had at my disposal all the information that would be needed for a paper of real value. I can, however, give my experience of the department for what it is worth.

*1st.*—The training of the officers in time of peace does not fit them for service *out of India*. They are, as a rule, utterly helpless without their pet purchasing agents, their gomashtas, and their Babas.

*2ndly.*—The officers do not study the resources of the countries bordering on India; do not know the languages of the people of those

countries; and they have no organization for the collection of supplies in an enemy's country by foraging.

*3rdly.*—The department is practically taught to consider itself a mere department of issue, instead of a department of supply in the real sense of the term, as it ought to be.

*4thly.*—In the field junior commissariat officers are required to perform duties which might be equally well done by subordinates. I have seen an assistant commissary-general weighing out groceries with his own hands.

*5thly.*—Commissariat officers should be required to learn how all sorts of transport animals ought to be fed and kept in working order in all climates. Their ignorance on this point is remarkable.

*6thly.*—Under the existing system of promotion, good, bad, and indifferent officers alike float to the top of the department, and most of the seniors are so wedded to routine, that they become obstructive and mischievous on service.

*7thly.*—It is but just to the department, however, to record the difficulties placed on commissariat officers by the cumbrous system of accounts which absorbs so much of their time and attention on service. Purchases must be made often by guess, and issues are frequently made in the same way; yet departmental rules require that such transactions shall be represented in accounts by exact weights and measures. Many officers are crushed by their responsibilities, and become practically useless on that account at the very time their best energies ought to be at the disposal of the troops.

*8thly.*—There is one other point on which I would wish to offer a suggestion: I refer to the system which now obtains under which commissariat officers in the field are subjected to interference on the part of the Commissary General. After troops have taken the field, no instructions or orders should be sent to officers of this department direct, save on questions of account or purely departmental details not affecting the interests of the troops. All such communications should be made through the general officer commanding.

*Transport.*—I have nothing to add on this subject to the report I recently submitted to the Quarter-Master-General on the 7th of July 1879, No. 709K.

*Medical.*—The double establishments of medical administrative staff should be abolished. The unification system of hospitals may be carried out in cantonments, or where large bodies of troops are serving together for any length of time; but it signally broke down in Southern Afghanistan, and owing to the failure of the transport, the force was put to the greatest straits for medical stores at times. The regimental is the only system that seems suitable for service in this country under all circumstances. Under the present system medical officers of the British service are kept constantly on the move, and their travelling expenses must be a very serious and, in my opinion, needless item of expenditure.

*Veterinary.*—The only suggestion I can offer regarding this department is that all officers joining it should be required to make themselves acquainted with the pathology and treatment of all animals likely to be employed in army transport. The officers of this department have little or no knowledge of the treatment of camels or bullocks; and large numbers of the former animals become inefficient and die from this cause.

*Ordnance.*—The only observation I have to make regarding this department is that the commissary of ordnance and his subordinates in the field should be wholly under the control of the general or other officer in command, and should not receive instructions on any subject, except accounts and returns, save through the general commanding.

*Engineers.*—I hardly know what is meant by this part of the question, as an *Engineer Department* does not exist in this country. But I take this opportunity of stating that, in my judgment, nothing can be worse than the relations now existing between the commanding engineer in the field and the corps of Sappers and Miners. The commanding engineer is provided with a brigade-major; and yet neither of them has any military duty to perform at present. The system seems to me to be radically wrong. I think sapper companies *working under the commanding royal engineer* should be commanded by him as their brigadier. The commanding royal engineer need not interfere with regimental details; but he ought distinctly to exercise the control conferred on brigadiers of other branches of the army. Unless the position of a commanding royal engineer is recognized in the manner here suggested, it will be a very false one, and wholly different from that of a commanding royal engineer in the home service, I am told.

*Staff.*—Amalgamate the Adjutant-General's and Quarter-Master-General's Departments, and have all duties conducted through one channel.

I have often experienced the inconvenience of having to let matters lie over, or to write extra letters when on inspection tours, because only one staff officer was with me, and he knew nothing about the work in the other department. On service this would be seriously aggravated in case of sickness or casualties, and there is no special advantage to the service in keeping the duties distinct.

*Troops.*—Efficiency cannot be secured until transport and reserves are part of the organization, and I therefore suggest that those two cardinal matters be elaborated upon the principles obtaining in the Continental armies of Europe.

The brigades of guards and rifle brigade in our British army is the nearest approach to efficiency that I know of, but they have no system of reserves. In answer to question 7, I will state what I believe to be simple and economical in that way.

*Departments.*—My ideas are too crude to be worth recording. Moreover, the Commission may safely look to the respective departments for valuable advice and information.

Lieutenant-General W. T. Hughes,  
C.B., Commanding Sirhind Division.

None; if officers are efficient.

Pickaxes, spades, and bill-hooks should form part of the equipment of each company; and the troops should be accustomed to the use of these tools.

Each department, with its staff and executive officers, should be attached to divisions, brigades, and regiments, under the direct orders of the general commanding the division, both on active service and in quarters.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

*Staff.*—I would recommend a chief of the staff with each army-corps, who has served in each department and also commanded a regiment; also that all departments should have their offices under the same roof or in contiguous buildings or tents.

*Troops.*—A system of messing should be introduced in Native regiments. Cooking utensils to be carried on mules by the regimental transport.

*Commissariat.*—No suggestions.

*Transport* to be kept up in regiments under the transport officer, and to be available for all reliefs.

*Medical.*—One department only.

*Veterinary* works satisfactorily as it is.

*Ordnance.*—This department ought to be under the general officer.

*Engineers.*—No suggestions to make.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

A school of engineering to be established at the head-quarters of every division for instruction of officers and non-commissioned officers of the line.

The duties of quarter-masters have largely increased of late years. These officers should be specially selected for activity and endurance, and above all they should be good horsemen: few are so.

Certain officers and non-commissioned officers in every regiment should be trained in the transport service and be available to assist in that service when their regiments take the field.

At Fort William and Bombay strong landing stages should be kept ready to accompany troops embarking for service.

Major-General A. H. Macintyre,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

*Staff.*—Staff officers to be attached for a short time to other branches of the service than their own, so as to obtain a knowledge of all details.

*Troops.*—I would recommend that belts of brown leather be worn by all ranks in place of the white and buff leather now in use.

*Departments.*—No suggestions.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

Selected officers who have passed staff college should be employed as much as possible in the higher posts.

For the improvement of troops or departments I have no suggestions to offer.

Major-General H. R. Browne,  
Commanding Saugor District.

*Staff.*—I think efficiency would be promoted by the abolition of distinct appointments to the departments of the Adjutant and Quarter-Master Generals, making all officers available for either duty, and by requiring from the senior staff officer of a division or corps a general superintendence of their duties.

*Troops* should be relieved of all needless encumbrances—useless clothing and other articles only required in quarters. The number of men regimentally employed should be very strictly limited: much additional duty falls on others from this cause, affecting efficiency considerably. The question of carrying "colors" on service is becoming serious. If 30 regiments are in the field, 60 officers and 120 non-commissioned officers are employed on this duty, companies being frequently without officers to command them. The pioneers of regiments are simply deductions from the effective strength: they do no duty that cannot be done by other soldiers. Every deduction from the number of

officers and soldiers who are *bona fide* in the ranks of the companies affects efficiency in every possible sense.

*Commissariat*.—A reserve of officers who have some previous experience of the duties of the department, whose services can be called upon in time of war, seems requisite.

*Transport*.—There is at present no real organization. Corps and departments receive their transport on their own demand and attend to it themselves. Much loss of power of movement and waste of carriage is almost a necessary result.

Major-General J. W. Schneider,  
C.B., Commanding Northern Division,  
Ahmedabad.

To improve the efficiency of Native troops, they should be armed with the Martini-Henry rifle, so that they may come into action simultaneously with British troops. The arming of the Native infantry contingent that proceeded to Malta with the superior weapon shows the necessity for the change.

As regards the Medical Department, the constant changes of medical officers in corps, British and Native, is to be deprecated.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

I would suggest the abolition of the staff corps and the return to the regimental system in the Native army, young officers being sent direct to the service they are to remain with.

I would suggest an increase in the number of European officers with Native infantry regiments.

I have a great respect for the Native officer, and have occasionally met with exceptionally good men; but, as a rule, they are not fit for command, and disaster might assuredly be anticipated if, in a case of difficulty, troops were left without the supervision of a European officer.

That this must happen under the present organization in the event of prolonged and severe fighting is certain; and to make a regiment thoroughly efficient, or efficient at all, it is necessary to increase the number of European officers.

The following is the establishment which I consider would suffice:—

1 lieutenant-colonel.

1 major.

4 captains.

10 lieutenants, including adjutant and quarter-master.

The lieutenant-colonel, major, and adjutant would be mounted on parade, the quarter-master on other duties.

Each captain would command a double company of 150 men, with two subalterns under him.

In view of regulating promotion, I would have each regiment formed of two battalions, the rank of lieutenant-colonel being attained on a general list, as was formerly the case.

Such a change as is here proposed might be somewhat expensive at first, but, apart from the great gain in efficiency, I believe it would be economical in the long run, as compared with the present extravagant system of the Staff Corps.

Officers would be selected, as at present, for the staff, and, whilst so employed, would be seconded in their regiments.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa  
Field Brigade.

Officers of staff experience should be selected for staff appointments on active service in preference to those of little or no experience; the latter might fill vacancies in the well-organized offices of the former in cantonments.

Brigadier-General C. T. Atchison,  
C.B., Commanding Bombay District.

This question embraces many points of too extended a nature to be replied to without much thought and study; but as regards Native troops, I venture to attach a proposal made by me some years ago when I was Adjutant-General of this army. Native troops should be armed with the Martini-Henry rifle to enable them to take their place in line with British troops with confidence.

The dual administration of the medical departments is not required; it is useless, cumbersome, and expensive.

#### NOTES ON THE ORGANIZATION OF THE NATIVE ARMY.

The object of the subjoined scheme is to meet the objections to the present organization, which may be said to be almost universally condemned.

The objections to the present system and the suggestions towards its improvement may be classed as follows:—

I.—The paucity of British officers to lead in the field, and the hopelessness of expecting the Native officer to take the place of the European officer at the head of his company.

II.—The constant change of officers from one regiment to another, tending to weaken *esprit de corps* on the part of the officers and confidence on the part of the men.

The reserve battalion will be localized, at which all recruits will be enlisted from the district allotted to the regiment, with the exception of 150 foreigners per battalion, as allowed at present.

III.—The absence of a proper *clannishness*—as distinct from *caste*—sympathy among the men, which can only be obtained, some think, by regiments being localized, by their recruitment being confined to certain districts.

IV.—To meet the views of those, on the other hand, who would prefer to see an army more *mobile* and who object to an army composed of regiments entirely localized.

The service and garrison battalion will be mobile, especially the former.

One cadre for the three battalions accomplishes this. Purchase was an object to be attained when this paper was first drawn up, but the abolition of all purchase disposes of this point, for the present at least.

VI.—The keeping of the present overgrown and expensive staff corps to its legitimate bounds, *viz.*, to provide a corps for *staff situations* only, both civil and military, exclusive of five-year-tenure appointments, which tend to improve regimental officers who, when so employed, should be *seconded*.

The writer admits that the plan he now proposes to detail is not entirely his own, having taken hints and ideas from papers that have already appeared both on the Home and Indian Army Reorganization Schemes.

*Proposed Scheme.—Infantry Branch.*

At present the Bombay Native army consists of 30 infantry regiments of the line, all under the orders of the Commander-in-Chief.

There are no local or irregular regiments properly so-called; the few there were are now organized as military police.

Out of these 30 regiments, therefore, the reorganized infantry army must be formed.

I.—It is proposed to form 10 regiments of three battalions each.

The battalions to be designated as follows :—

- 1st.—Service battalion.
- 2nd.—Garrison battalion.
- 3rd.—Reserve battalion.\*

II.—The officers of the three battalions to be formed in one cadre to consist of 27 officers.

III.—The cadre to stand as follows :—

- 3 lieutenant-colonels.
- 3 majors.
- 7 captains.
- 14 subalterns.

—  
27  
—

IV.—The battalions to be composed as follows :—

DETAIL.		1st or service battalion.	2nd or garrison battalion.	3rd or reserve battalion.	Total of regi- ment.	REMARKS.
<i>European Officers—</i>						
Lieutenant-colonels (commandants)	...	1	1	1	3	
Majors	...	2	1	...	3	
Captains	...	4	2	1	7	
Lieutenants	...	4	...	...	4	
Sub-lieutenants	...	2	2	...	4	
Adjutant (subaltern)	...	1	1	1	3	
Quarter-master and paymaster (subaltern)	...	1	1	1	3	
Total	...	15	8	4	27	
<i>Native Officers—</i>						
Subadars	...	8	6	5	19	
Jemadars	...	8	6	5	19	
Total	...	16	12	10	38	
<i>Non-Commissioned Rank and File—</i>						
Havildars	...	32	24	20	76	
Naiks	...	40	30	25	95	
Drummers	...	16	12	10	38	
Privates	...	800	600	500	1,900	
Total	...	888	666	555	2,109	
Number of Companies	...	8	6	5	19	

\* Perhaps more happily styled "nursery" battalion in an able paper in the *Saturday Review* on army reorganization at home.



The only difficulty will be found in the fact that field officers are in superabundance, while there is a great paucity of subalterns. But this difficulty will in course of time settle itself the more or less quickly as Government assists, by bonus or otherwise, in getting rid of the senior field officers.

There is thus *apparently* a monthly increase of Rs. 5,430 for the whole army; but it must be borne in mind that the actual expense of the Native army is far in excess of that set out under "present regimental establishment;" for, as a rule, adjutants, quarter-masters, and 1st wing subalterns hold the rank of captain. The *Army List*, dated 1st January 1873, shows at least 70 captains holding such appointments. The difference of pay, *viz.*, Rs. 374—225=149 × 70=Rs. 10,430, must therefore be added to the amount shown as the total cost of "present establishment." The cost of the proposed establishment will then be less by Rs. 5,000 per mensem than the present actual expenditure.

Brigadier-General F. G. Kem-  
ster, Commanding Ceded Districts.

The staff are, I believe, thoroughly efficient and can produce many first-rate men.

The troops.—European battalions are wanting in strength, caused by the present system of short service.

So far as the Madras troops (Natives), I would improve their efficiency by at once abolishing their present stiff, useless, and unmeaning uniform, which cramps and prevents the free use of the men's limbs, more especially when called upon to carry out skirmishing and outpost duties.

I would give the men the Zouave dress as being much more suitable and more becoming to a Native. Each man should have a good pair of brown leather gaiters to protect the legs against thorns.

For dress occasions, such as full dress parade, the men might have a pair of white ones.

Each man should be allowed by Government a water bottle and water-proof sheeting on service.

The dress of the Madras cavalry is too stiff and too closely fitted; it is very apparent when they are dismounted.

I do not venture to express an opinion on the departments.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

No; I think as a rule the staff are efficient.

As the Native troops are the only ones with which I have any experience, I would recommend that all regiments should be class regiments. I would also suggest that the pay of the non-commissioned ranks (havildars and naiks) should be increased; that no man should be allowed to claim his discharge before he has served six years; and that at the end of that time, if found to be a slovenly, careless soldier, and unlikely ever to make a good non-commissioned officer, he should be summarily dismissed, especially if he is of bad character. That no man should be entitled to pension before twenty years' service. If found unfit for the service before that, that he should be discharged with a handsome gratuity. That the staff pay of a pay havildar should be increased from Rs. 5 per mensem to Rs. 8, and that arrangements should be made through the Government for supplying all our Native troops with good English boots at a moderate price.

I can make no suggestions with regard to the 1st, 3rd, 4th, 5th, and 6th. To the 2nd I have replied under the head "transport."

Colonel J. Macdonald, C.B.,  
Secretary to the Government of  
Bombay.

To reply fully to this group of queries would involve long exhaustive reports on each; for this I have not at present sufficient leisure. In some of the replies given to other questions, remarks may be found connected with the staff and the departments named. I may here state that the staff as a body, so far as my experience goes, have been found efficient both in quarters and in the field. I think that, as a rule not to be deviated from, no officers should be appointed to either the Quarter-Master-General's Department or to the Commissariat Department in the field who have not already served in those departments. If, as suggested elsewhere, the tenure of an appointment in the Commissariat Department is restricted to five years, there will be in course of time a number of officers passed through the departments, who would be useful for employment either to fill acting vacancies in the regular establishment or as extras for employment in the field.

*The Commissariat* requires to be relieved of much of the duty now thrown upon it.

*Transport*.—The little I have to say on this subject will be found in reply to the question put in the separate paper (under this head).

*Medical*.—India is now paying for a double staff of medical administrative officers, and, as far as I am aware, there is no necessity for such extravagance. Whether the troops are on active service or not, either the administrative staff of the Indian medical service could, with some re-adjustment of their civil duties, look after the interest of the British soldier, or the administrative staff of the British medical service could perform the same duty for the Native troops. Certainly, either course might be adopted on actual service or in cantonments. I do not believe that under the existing arrangement there is sufficient work in this presidency for a surgeon-general and three deputy surgeons-general of the British medical service either in the field or in quarters. If army-



corps are formed in lieu of presidential armies, two deputy surgeons-general ought to be able in time of peace to perform the military administrative duties to the whole of the troops, European and Native, belonging to any one corps, and on service one administrative officer should be enough for both British and Native corps forming a division.

*Veterinary Staff.*—No remark.

*Ordnance.*—No remark.

*Engineers.*—No remark.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

Should be on the same organization as British army-corps.

The remarks in reply to query 2 apply equally to this, and I think a suitable dress should be given to all troops on active service.

The Commissariat Department is under-officered even in peace time. The officer's whole time is taken up in office work. The actual duty of obtaining supplies (which is the chief duty of a commissariat officer) is entirely in the hands of Natives. The consequence is that directly a force has to supply itself in a foreign country, the commissariat officer does not know how to do it; and, as in the Kandahar and Girish column, the cavalry and political officers have to get the supplies, or, in other words, do the work of the commissariat official, who is doing Babu's work in a tent. The officers require special training and selection. Very few of them are judges of the articles they supply (witness the rubbish often issued under the name of "line gear"). There should be a reserve of trained officers available for employment in time of war.

The department has not sufficient nucleus for expansion to the requirements of active service. The officers are naturally wanting in experience, except those who have been in the department for some time. A system should be established which would give a larger number of officers some knowledge of their duties, and which can only be obtained by increasing the staff in a small degree and in attaching such officers as are candidates for appointment to the department to learn their duty. Appointments to be made for five years.

*Transport.*—An organization in time of peace which will allow of its expansion in time of war. I think it must be admitted that the late campaign has shown the necessity for this, as also for officers being more experienced in these duties. A knowledge of the language is, I think, absolutely necessary, not only by the officers, but also by the subordinates. The success of the highland transport trains in Abyssinia is a proof of the value of organization.

The officers of the Royal and Indian medical departments should, whilst serving in India, be amalgamated. The system of having two departments working side by side is a very expensive arrangement with no compensating advantage.

I think we should revert to a modified regimental system, with an establishment of regimental medical officers, but with base hospitals.

I think present arrangements are sufficient.

Ammunition columns should be established as at home, and the duties of the Ordnance Department should be confined to depôts of supply. The present system has not worked satisfactorily.

The department is under-officered and has no reserve of qualified officers who can be made available for war. The Ordnance Commission Report should be carried out as far as possible. There should be only one department for all India.

The English system is, I think, the best.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant  
Quarter-Master-General.

A chief of the staff with any column on active service would ensure greater efficiency and unity of action in the several departments of the staff. The Commissariat Department is generally undermanned and overworked when active service occurs. It should be capable of immediate expansion by officers who have had some experience in that department. This can be attained only by simplifying the system of departmental accounts and limiting the tenure of office by the executive officers to five years, subject to reappointment; and all appointments to the department to be by selection as to the general staff of the army of which the Commissariat Department should form part. A transport department has hitherto been formed only when war has been determined on. Such must still be the case to avoid the expense of keeping up the department with very little advantage during long years of peace. Carriage should always be hired, as thus an excessive outlay in purchasing is avoided, and the animals are carefully looked after by the owners, but, if necessary, should be fed by Government when food is not otherwise procurable by the owners. The desertion of the drivers could be easily avoided by ordinary precautions on the part of the military and by the legislature enacting that men so hired during the time of war would be liable to punishment by the civil power if they returned to their homes without the sanction of the military commander in the field. The transport should be under the orders of Commissariat Department in so far only that a commissariat officer selected for his administrative capacity and practical experience should be made the head of the department, but under the immediate orders of the general com-

manding alone, and should be relieved from all commissariat duties. The Natives of India have been long accustomed to the Commissariat Department making arrangements in the matter of supply and transport, and have therefore greater confidence in a commissariat officer than in an officer quite unacquainted with that description of employment, and probably ignorant of their language. So under the former would work more efficiently and willingly.

Major H. Collett, Assistant  
Quarter-Master-General.

I am decidedly of opinion that the division of the staff into departments (Adjutant-General's and Quarter-Master-General's) is detrimental to the true interests of the public service, and ought to be abolished.

It causes needless correspondence, and an unnecessary multiplication of forms and returns. The system has not, that I can see, a single advantage. It is bad enough in peace, but in war it is ten times more objectionable. A general officer can have but one confidential staff officer, and it is unfair to require him to transact his business through two men instead of one.

I can see no reason why all staff officers should not be placed on one list and be given some general title. The chief of the staff or the staff or army head-quarters, would then distribute them as the requirements of the service might demand. At each divisional head-quarters there would be a chief staff officer and as many assistants as might be necessary. This officer should be the channel of communication with the general for all staff, commanding, and departmental officers, whether commissariat, medical, ordnance, or engineer. All business should be transacted through him, in order that he might know all that was going on, and be able to see that the public service was conducted to the best advantage. A judicious and competent chief staff officer ought to prevent all friction between independent departments, and all undue clogging of action by routine or red tape obstructiveness. He ought to act as oil to the wheels of a machine. To do this he must of course be a man of ability and of tact; and chief staff officers under this system will have to be very carefully selected.

A stupid man, or a man wanting in judgment, temper, or tact, would be most mischievous in such a position. His powers for evil are in fact commensurate with his powers for good.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

*Staff.*—I would give them more opportunities of making themselves acquainted with other branches of the service than those to which they belong. Officers who pass through the staff college have these opportunities; but officers who have not the opportunity or the desire to go through the college, seldom have a chance of making themselves acquainted with the details of those arms with which they have not served.

I think that there is too much tendency to keep departments separate instead of blending them together.

The combination of the duties of the Adjutant-General's and Quarter-Master-General's departments as now carried out at home appears to me, from what I have heard of its working, to be a good one.

Staff officers should have more opportunities of superintending the movements of troops, and of actually carrying out all details that would be necessary in time of war. This might be done on a comparatively small scale, so as to save expense.

At present staff officers are too much tied to their desks, and have not sufficient field work. This is partly caused by the inferiority of their clerks, who often cannot be trusted to carry on the ordinary routine of an office. Clerks are often procured with the greatest difficulty, and as a personal favor, from commanding officers; and it frequently happens that just as a good man has learned his work, he is offered promotion in his regiment and returns to it.

A special corps of clerks should be formed, in which men should receive fair pay to begin with, and be promoted according to service and ability. At present there is little or no inducement for a clever hard-working man to remain in an office.

Staff officers would also have more time for the performance of really military duties, if many elaborate returns now called for could be dispensed with.

It is well known that some returns give information which has already been furnished in a different form in other returns. Again, many returns that have now to be submitted weekly or fortnightly might apparently be furnished monthly instead.

On field service, officers of the Quarter-Master-General's Department are not allowed enough horses. A heavy man certainly requires four under ordinary circumstances.

*Troops.*—Troops generally should have greater opportunities of manœuvring over rough ground, and small bodies should manœuvre against each other. At camps of exercise little is learned except by officers holding high commands and by the staff; even regimental officers know little of what is going on, while the private soldier learns absolutely nothing.

If recruits were more carefully taught, and induced to take an intelligent interest in their work, instead of learning drill in a purely mechanical way, a good foundation would be laid. Squad might then manœuvre against squad, and company against company, by which means section leaders would learn to exercise more supervision than is now often done.

Captains should have more control over their companies, and should be encouraged to take them out and exercise them. At present it is almost an unheard of thing for a captain to have his company out except on a battalion parade.

The position of non-commissioned officers should be improved. I am convinced that a better class of non-commissioned officers would immensely add to the efficiency of a regiment on service.

In hill stations, and in camp in the cold weather, soldiers should cook their own food. At present they are dependent upon Native cooks, whose cookery is usually performed in a very dirty way, while the number of followers of a regiment is considerably increased.

Men should be much more practised in the use of the spade and in throwing up shelter. Baker Pasha, in his book on the War in Bulgaria, points out what an enormous advantage the Turks gained by their proficiency in the art of entrenching themselves. The system certainly had not the effect of reducing the *morale* of the troops,—an objection which has been frequently urged against it. On the contrary, it would appear that good troops merely gain increased confidence by the knowledge that they are not needlessly exposed to fire.

*Commissariat.*—Not being at all intimately acquainted with the details of the Commissariat Department, I can only suggest that every endeavour should be made to simplify the present complicated system of accounts; to lessen clerical labour; and thus leave the officers of the department freer to exercise personal supervision over the procuring and issuing of supplies.

With an army in the field there should be one head to control the supply of all the divisions. In the late Afghan campaign it appeared as if the heads of the department in different divisions were rather working against each other than in concert, not from the fault of individual officers, but owing to the shortcomings of the system.

More officers of the department are undoubtedly wanted with troops in the field. During the late campaign officers were much overworked, and the young officers who were sent to assist late in the day could be of but little use.

*Transport.*—No department can be efficient which is only created when an emergency occurs. The nucleus of a proper transport department must be formed in time of peace and it can be expanded in time of war.

The subject is one which must be gone into at length if proper justice is to be done to it, and I would here merely indicate the manner in which I think a proper system might be established. I think that every regiment should have a certain proportion of transport animals attached to it in time of peace.

To look after it, a staff of regimental officers, non-commissioned officers, and men should be told off. The drivers should be under proper discipline, trained to *silence* and strict obedience, and drilled to a certain extent.

The staff should be thoroughly instructed in fitting of pack-saddles, loading of animals, and grooming; and they should be responsible for the animals being properly fed.

The proportion might be sufficient, say for the mobilization of one company, troop, or division of artillery, and might be attached to each company, troop, &c., in turn for periods of one month, so that all might have opportunities of learning the work.

One officer of each regiment might be appointed transport officer, say for one year, and would be relieved by another, while all were gradually acquiring some knowledge of the details.

The company to which the carriage was attached would practise loading and marching out at least once a week: this might be done even in hot weather under ordinary circumstances, the move, of course, being a very short one. The carriage thus made over to regiments would form the moveable column carriage of the station or brigade, the whole being transferred temporarily, when occasion required, to that part of the force which it might be desired to move, and returned when no longer required.

After a short time each regiment would be quite capable of managing its full complement of carriage, and officers of sufficient seniority and experience might be detailed to control the transport of brigades and divisions.

All regimental transport should be inspected from time to time by a selected staff officer, probably the officer of the Quarter-Master-General's department attached to the command. The inspection should not be confined to mere examination of the animals, harness, &c., but they should be seen at work.

In order to secure a certain amount of uniformity of system, it would be well if an active and experienced officer could be appointed as

head of the whole transport department. He should constantly travel about and report on the state of efficiency in which he found the transport of each regiment for the information of the Commander-in-Chief.

He would draw up rules for the guidance of all. These rules should of course be as simple as possible, but they should be strictly adhered to. I have seen very serious inconvenience and delay caused by utter want of discipline and the neglect of such simple and obvious regulations as observing the rule of the road, making animals preserve proper distance, removing broken-down animals from the road, selecting open places instead of defiles to adjust loads, &c., &c.

I am of opinion that if some such system as I have roughly sketched could be adopted, it would be comparatively easy to increase the transport in time of war both by withdrawing what is already in existence from where it was not required, and by entertaining additional animals and drivers.

The transport animals need not be unemployed. They should be utilized for regimental, station, or commissariat work when not actually employed on their own special duties.

It may be objected that by the plan I propose a new department would be created and extra expense caused; but I am convinced that no department will ever work well unless those who are entrusted with its management feel that they, and they alone, are responsible. Without this sense of responsibility, officers will not take a proper interest in their duties.

The importance of the subject is one that admits of no doubt. The whole efficiency of an army depends upon its transport; and the late campaign clearly showed the evils and enormous expense entailed by having to improvise a transport train at the eleventh hour.

*Medical.*—Without going into details on professional matters, of which I must necessarily be ignorant, I can only suggest that the regimental system should be reverted to for medical officers, that being the system which is, as far as my experience goes, nearly unanimously approved by the combatant part of the army.

That, if possible, pack animals should, as far as practicable, be substituted for doolies and bearers; and that the latter should be picked able-bodied men. The kahars in the Peshawar column were a miserable set of creatures, a very large proportion of them being old and decrepit. Kahars should be under some discipline. At present no one seems to have any control over them; they are lazy, noisy, unruly, and always in the way. Their apathy not only leads them into danger, but sometimes seriously interferes with the success of military operations, by delaying and hampering the troops.

It would be well if kahars were exercised along with the rest of the transport and taught to obey orders and observe the necessary rules for facilitating the march of a column.

*Veterinary, Ordnance, Engineers.*—No; I have not the knowledge nor experience of these departments to qualify me to give any suggestions.

Staff officers can never prove their efficiency on service if they are put to work under general officers who are not efficient themselves. Therefore, brigadiers should be selected on account of their efficiency, and not simply because they are senior in rank to the other colonels.

The efficiency of both staff and troops would be much improved if they had been accustomed to work together during peace time; and this might be easily done, provided that certain stations or regiments are told off *definitely* to form portions of *fixed corps d'armée*, divisions and brigades, by stations, brigades, or divisions manœuvring against each across country during part of the cold weather, as, for instance, the troops from Meerut and Umballa to start from their respective stations on a fixed date: manœuvre to last, say, ten days, the objective of each force being the cantonment of the other. Such work could not fail to improve the efficiency of all concerned for active service.

The sappers and miners of all three presidencies are so efficient in every way, that the only manner in which I can suggest an improvement is by doubling their numbers: the Bengal sappers to be formed into twenty companies, half of which would have their head-quarters at Rawal Pindi or Sialkot.

It cannot be denied that the efficiency of troops on service must be, and always is, much increased by a knowledge that they are well supported.

In the mitrailleuse or machine gun we have not only a real, but a moral, support. This has been universally acknowledged, even by Englishmen; but we alone of all European nations object to its use in our armies. (Our navy adopted it years ago.) Why is this?

Having, as we always shall have, to contend against forces that are numerically superior to our own, while at the same time they are usually well armed and (in European armies certainly) better drilled,

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

better disciplined, and better prepared in every way for war, it behoves us to do all in our power to improve the quality of the support to our men, limited as they are in numbers, and, so far as the Native regiments are concerned, deficient in the material as well as moral support that is afforded by a sufficient number of British officers.

Hitherto, we in India have only been opposed to Asiatics; but henceforth we shall be opposed, in one direction for certain, by a combined force of Europeans and Asiatics, armed, equipped, and trained as well as ourselves, but far superior in numbers, and supported by large numbers of mitrailleuses, all of which is well known to every man in our Native army.

We should therefore, in view to the support, and consequently increased efficiency, of our Native troops, give the mitrailleuse a definite position in the organization of our army, and distribute them *at once* throughout India, as, *ce n'est que le premier pas qui coûte*, and it will be cheaper to expend a few thousand pounds on these weapons now than to send additional regiments from England to assist us to repel an invader hereafter.

I would therefore suggest the immediate provision of three mitrailleuses to each brigade of three regiments of infantry; that they should always during peace time remain in charge of the British regiment of the brigade: the officers and men of that regiment to be instructed in its use and to practise with it regularly, and the ammunition for its use being kept in the regimental magazine. In time of war (and at camps of exercise if considered necessary) one of these weapons, with its full complement of British soldiers, would be attached to each regiment of the brigade, or so distributed as the brigadier might see fit. Of course, during peace time, these weapons would *only* be in charge of *British infantry*.

In addition to this, every fort should have at least two mitrailleuses forming part of its armament; and every large cantonment should have one to form part of the armament of its defence post in case of internal disturbances. Whether or not our large railway stations, such as Lahore, Allahabad, Agra, Allygurh, &c., which, being junctions, are also important strategic points, should be provided with one apiece, to be under the care of the volunteers, is a question worthy of some consideration.

4. Cannot the guard duties of troops in garrison be reduced? Can you give detailed suggestions as to the manner in which this may be done?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

I am not aware that any sensible reduction can be effected. Certainly there is nothing in the present system that calls for special legislation. Here and there petty reductions might be possible, but these matters can best be dealt with by officers in command on the spot. Whatever these reductions may be, they cannot affect the strength of the army in any appreciable degree.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

I do not think guards can be further reduced. In British regiments they are a mere nothing. Many men are employed in "regimental duties," but as they have all their nights in bed, and are mostly available for parades of all kinds, they are as good as present.

The guards of Native regiments are also at a minimum in the Oudh Division, except at Lucknow, where the Fort Muchee Bhawan engages a company.

Orderly duties are also at the lowest ebb.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

If the cantonment police be efficient, the guard duties of Native troops might be reduced to the following:—

*Native Infantry Station Guards.*

	Native Officers.	Naiks.	Sepoys.
General officer commanding division or district	1	1	6
Officer commanding station or garrison, when not under the rank of a field officer	0	1	3

*Native Infantry Regimental Guards.*

	Havildars.	Naiks.	Buglers.	Sepoys.
Quarter guard	1	1	1	6
Magazine guard	0	1	0	3
Mess guard	0	1	0	3

*Native Infantry Orderlies.*

Commanding officer	0	0	0	1
Adjutant and order book	0	0	0	2
Hospital	0	1	0	0

*Native Cavalry Regimental Guards.*

			Duffa- dar.	Jema- dar.	Sowar.	Horses.
Standard guard	...	...	1	1	6	0
Magazine guard	...	...	1	0	3	0
Mess guard	...	...	1	0	3	0

*Native Cavalry Orderlies.*

Commanding officer	...	...	0	0	1	1
Adjutant and order book	...	...	0	0	2	1
Hospital	...	...	0	0	1	0

*Memorandum.*—In special localities, such as disturbed frontier stations, rear and bazar guards may be necessary, and should be provided at the discretion of the officer commanding the station.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

Not in Mhow Division and in States of Native Princes, where the police are not efficient enough to guard the jails, in which many desperate characters are often confined, nor to escort treasure through the Native States.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

Guard duties for Native troops in garrison could be reduced by dispensing with mess and commanding officers' guards.

Guards should not be furnished for purely civil purposes, such as in Calcutta, for the Mint, Bengal Bank and Alipore Jail, and during absence of Viceroy and Lieutenant-Governor over their residences.

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

Some sentries might be dispensed with in the artillery were the gun-sheds provided with locked doors. I do not see how other guard duties at this station could be reduced.

Major-General R. O. Bright,  
Commanding Meerut Division.

No unnecessary guards are furnished in my division. The guards found by Native regiments to commanding officers might be dispensed with.

Major-General H. R. Browne,  
Commanding Saugor District.

I have given a good deal of attention to this point. On the whole, duties of guard are fairly restricted to what is necessary. Excepting as regards the protection of regimental treasure, the number of soldiers employed on this duty, which does not obtain in any other country, is hardly understood and is very considerable indeed. Every regiment and detachment has its chest, with its double sentry, requiring six soldiers on guard, and these six must be multiplied by the number of regiments and detachments in the whole of India. I think also that the number of soldiers employed as orderlies to staff officers and others is often much in excess of any real requirements.

Major-General J. W. Schneider,  
Commanding Northern Division,  
Ahmedabad.

Garrison guards have been reduced to the lowest possible figure. The most important reduction has been a large diminution in the strength of jail guards. I consider that permanent escorts and detachments to political officers in foreign territory might be withdrawn, the States with which they are associated being required to furnish trained local troops for the protection of records and treasure.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

This will be answered by the Adjutant-General.

Brigadier-General F. W. Jebb,  
Adjutant-General, Madras Army.

Guard duties may be reduced—

- (i) by reducing the number of garrisons and bringing troops together to a greater extent than is done at present;
- (ii) by confining military guards to strictly military requirements, such as over arms, ammunition, military treasure, and prisoners, and not requiring troops to furnish guards over civil jails, mint and stamp offices, banks and commissariat stores, &c.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa  
Field Brigade.

A police guard might be substituted for the bazar military guard over prisoners.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay  
District.

Guard duties have in this presidency been reduced to the lowest possible extent, with one or two exceptions. I have lately represented one instance that exists in my command in which a Native guard mounts in the High Court. The only orders for the sentry are the following:—

“None but officers of the court, barristers, and vakils are allowed up the Judges' staircase.

“The sentry is not to interfere with the umbrellas of suitors.”

It is apparent that the sentry is not able to carry out those orders.

There is a tendency among political officers in our own territory to demand personal escorts of regular troops. In Foreign States such escorts may be necessary, although the local troops of the State might doubtless be appropriately so employed in many cases.

Brigadier-General F. G. Kempster, Commanding Ceded District.

The guard duties in this army (Madras) are confined strictly to regimental, with the exception of a guard over the arsenal and magazine, and I believe this system is carried out throughout this presidency.

Brigadier-General J. I. Murray, C.B., Commanding Mooltan Brigade.

In Native regiments, the hospital, mess, and commanding officers' guards might be abolished; but I can suggest no reductions as regards British corps.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

The purely military guards in the Bombay presidency have been reduced as low as is possible with regard to the safety of public buildings and Government property in military charge, but there are still many guards which should be taken by the civil police. Up to 1878 the large number of 390 sepoys were employed daily in guarding the civil jails, and the sentries were required to exercise a certain supervision over the prisoners themselves. Sir Richard Temple at that date relieved the military guards of all direct control over the prisoners, and reduced the strength of the guards by 50 per cent. His Excellency also abolished a practice which had existed for many years of convicts proceeding to Calcutta *en route* to the Andamans being escorted by military guards, and this duty is now performed by the police. There however still remain fifteen jails over which military guards, numbering 210 of all ranks, are posted daily, and eighteen civil treasuries which are protected by military guards numbering—

25 European infantry,  
193 Native infantry.

The jail guards have now no responsibility whatever in connection with the safe keeping of the prisoners, and are retained merely as a support to the jail establishment in case of an *emeute*. I think therefore that these guards, except in jails containing a very large number of prisoners (say over 300 to 500) should be dispensed with, and that no civil treasury should be under a military guard. The mint guard in Bombay, on which are employed 27 of all ranks, is excessive, and should be reduced, as should also a small guard of a naik and three sepoys which mounts at the entrance of the High Court.

Colonel J. A. Tytler, C.B., V.C., Commanding 4th Goorkhas, and lately Commanding a Brigade.

Yes; they might be reduced. Regimental commanding officers' guards might be done away with altogether, and in the cold season both in garrison and on active service British troops could share with the Natives in many of the guards and the duties now generally performed by the latter.

In the late campaign the British regiment in my brigade invariably took their fair share of all duties, until the weather became too hot for them to do so, and I think that they were all the better and healthier for it.

Colonel H. K. Burne, C.B., Secretary to Government of India, Military Department.

I do not think they can be reduced.

The question has been the subject of much correspondence between the Government of India and Local Governments, as well as with Army Head-Quarters in India.

Much has been done in the direction of reduction, not with a view to reduction of the number of the troops, which is impossible, but to relieve the men of too severe duties and ensure them the regulated three nights in bed.

If the duties are not too severe, it is better that they should be taken by the troops than provided for by police or hired chowkidars.

The number of guards and sentries depends on the circumstances of each garrison and can only be judged by the military authorities.

Colonel J. Macdonald, C.B., Secretary to the Government of Bombay.

Not unless the guards furnished on the requisitions of the civil authorities are taken by the police. The purely military duties of the troops are, I believe, reduced to the lowest figure practicable.

Colonel A. H. Murray, Adjutant-General, Royal Artillery in India.

No recent personal experience, but I doubt the possibility of any reduction on a large scale. The guards and the nights in bed are watched in this office as far as the artillery is concerned.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

In some stations, perhaps, the guard duties of troops may be susceptible of reduction, though not to any considerable extent.

Police guards or watchmen should invariably be employed to keep watch over commissariat or medical stores, for instance, on the sound principle that soldiers should only be employed on purely military duties.

It is a question whether honorary guards over the residences of lieutenant-governors and chief commissioners could not be dispensed with and police guards substituted.

Lieutenant-Colonel H. A. Little, Officiating Deputy Assistant Quarter-Master-General.

In some garrisons (*e.g.*, Jubbulpore) military guards are employed for duties of a civil nature which should properly devolve on the police, such as guards on civil jails. The escorts furnished to civil and political officers when on tour should be furnished by the police and also escorts on convicts (civil). A guard on a general officer's quarters or on

those of a commanding officer of a Native regiment is unnecessary, still more so on a mess house, over which there should be a chowkidar paid from the mess funds, if the servants living in the mess houses cannot be trusted. A double sentry on a treasure chest in front of the quarter-guard in quarters is superfluous.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

Speaking generally, I think that guard duties might be considerably reduced. For instance, buildings are frequently placed under the charge of sentries when their safety might be sufficiently ensured by proper doors and locks and the general superintendence of the police. Without having the details of the duties of any particular station with which I am acquainted at hand to refer to, I am unable to make suggestions in detail.

5. What is your opinion—

- (a) regarding the propriety and feasibility of having a local European army in India?
- (b) or local battalions affiliated to the line battalions at home?
- (c) or continuance of present system, but with special enlistments for Indian service?

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding  
Southern Afghanistan Field Force.

(a) I fear we cannot go back to the local service system now; though I think it was a mistake to have abolished it. It is to be recollected that the causes which made the local army so popular in former days no longer exist. The numerous subordinate appointments in the various departments of the service were filled by soldiers of the local service, and it was these openings for deserving men that led to the popularity of the Company's service. Again, the cost of living has increased so largely within the last twenty-five years, that married soldiers of the best class do not readily leave their regiments now for departmental employ. To re-establish a local European army would, in my opinion, be a very retrograde measure; for it cannot be denied that the old Company's regiments were not, *as a rule*, quite on a level with the line regiments in all respects.

(b) The objections applicable to local regiments apply with equal force to local battalions affiliated to battalions at home, if the question implies that local regiments are never to go to England.

(c) The continuance of the present system, with special arrangements for service in India, appears to me the best of the three proposals. It cannot be supposed that we shall give up altogether what is called the short-service system; but some modification of that system can surely be devised to meet the requirements of India. Various proposals have been made from time to time to meet this difficulty; but I have not seen one which exactly corresponds with that which I am about to suggest; so I give it for what it is worth. I think soldiers while engaging to serve anywhere as now should receive extra pay while employed in India. We do not expect officers to serve in India on pay which is considered suitable in England; and I cannot see why we should expect the men to do so. The expense might be met by reducing the number of officers and by strengthening the companies, an arrangement which would certainly not impair the efficiency of the army. A measure of this nature, combined with a system of enlistment which would leave the soldier, say, twelve years with the colors, would probably be popular, and certainly meet our present difficulties. Whatever the outcome of the present inquiries may be, some stringent measures should be taken to prohibit very young soldiers being sent to this country. Lads under 21 years of age seem constitutionally unable to stand the climate; and the sacrifice of life among this class is very high.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding  
Oudh Division.

I strongly advocate a local European army for India as free as possible from all control in England.

The enormous expenses attending the present system must have much to do with financial troubles, as the cost of a soldier has increased so enormously of late years.

By long service there would be a large diminution in transport charges and in the cost of depôts in England. The risks of denuding this empire in case of European troubles would also be minimized.

With regard to efficiency, I believe the army would be improved. The mortality now-a-days in India is not worse than elsewhere. And acclimatized men are more healthy.

Regiments returning to Europe are notoriously more effective than those that come from it; and in former years volunteering was appreciated to the full, for, as a rule, the soldier likes Indian better than home or colonial service. He is better paid, he has much less to do, he has servants at his command, and he can save, if steady, even if married. It remains to be seen whether the present Army Enlistment Act has not



to some extent cankered men's minds; but my own impression is that a local army would be very popular, and according to old traditions there should be no lack of men.

That there will be *strong* opposition in some quarters I regard to be certain, because many interests will be affected; but I believe the change to be perfectly feasible. I believe it to be manifestly in the interests of the Indian tax-payer, and I think it should be *absolute*: for if either of the alternative proposals (*b* and *c* clauses) be adopted, there will be not only constant clashings of interest as at present, but the control of the army would still rest in England instead of in India; or, in plain words, with the War Office and the Horse Guards, instead of with the Secretary of State for India and the Government of India.

Lieutenant-General W. F. Hughes,  
C.B., Commanding Sirhind Division.

I have a strong opinion that to revert to a local European army in India, into which Eurasians of good physique should be freely recruited, is very desirable. And I think that that army should be supplemented by regiments of the line specially enlisted for Indian service.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

(*a*) I am in favor of a local army, as formerly existed, with a *dépôt* in England.

(*b*) I do not approve of this system. The worst characters would be sent to India; and in the event of war in Europe, the battalions in India would not be kept up to their proper strength.

(*c*) This might answer, the term of enlistment being 15 or 20 years; but it would be a more expensive system for the State.

Major-General J. Ross, C.B., Com-  
manding Presidency District.

Local battalions affiliated to line battalions at home would, I think, work well.

Major-General N. H. Macintyre,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

(*a*) I advocate the having a local European army.

(*b*) Regiments with *dépôts* in England is, in my opinion, the preferable system.

Major-General R. O. Bright, Com-  
manding Meerut Division.

(*a*) I should strongly deprecate any such measure.

(*b*) I think objectionable.

(*c*) This I consider the best solution of the present difficulty. Every man going to India should be enlisted for ten years, with option of serving on after completion of Indian service for pension. A larger bounty might be given as an inducement, if found necessary.

Major-General H. R. Browne,  
Commanding Saugor District.

(*a*) I should not advocate it. Regiments and batteries insensibly deteriorate as local corps. There is also a loss of the experience gained by general service.

(*b*) The affiliation system, so far as the existing system has shown, does not answer, and is much disliked in the service.

(*c*) I think the present system should continue, more freedom being given to volunteering, with less attention to character, which bears hardly on regiments, who lose their best men, and excludes many active effective men from transferring their services. I do not see how special enlistment for Indian would differ from local service.

Major-General J. W. Schneider,  
C.B., Commanding Northern Divi-  
sion, Ahmedabad.

To revert to a local European army in India would not, in my opinion, be now expedient. I should recommend the alternative given under clause (*b*) as being the easiest to introduce. Of course, it would imply enlistments for Indian service for at least 21 years. The abolition of the present costly system of reliefs, and annual drafts caused by the present Short Service Act, cannot be too strongly urged.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

(*a*) I am of opinion that a local European army in India, although it may be feasible, is not desirable. I believe it would be impossible to maintain the high state of efficiency and discipline which is expected of troops in the present day.

(*b*) This also appears to me very undesirable.

(*c*) The present system I consider infinitely the best, provided men are enlisted for 12 years' service with the colors.

Brigadier-General F. W. Jebb,  
Adjutant-General, Madras Army.

(*a*) I do not think a local European army in India would answer well, because the corps, starting afresh, would be without *esprit de corps*, and the soldiers, being banished from home for the best part of their lives, would marry East Indians, and increase the number of soldiers and pensioners' Eurasian families, which are now dying out. This is a class which, from recent enquiries that have been made, are found to be congregated in various places in the presidency, living in great distress and in the lowest degradation.

These old European soldiers, once away from the restrictions of army life, mostly become habitual drunkards, and make no effort to procure any means of livelihood beyond what their pension admits, which is an amount quite insufficient for the wants of a family. It would, in my opinion, be a sad pity to start a fresh supply of such a class.

(b) I think local battalions affiliated to home battalions would be a far preferable course to adopt, because men in the Indian battalions found unsuited for service in this country could be readily exchanged for others from the home battalions.

Many soldiers, after a service abroad of from five to ten years, have a great longing for a run home. This indulgence might be granted them by allowing a certain percentage to have a turn of service in the home battalions, which would enable those who wished to marry in their own country before taking another tour of Indian service.

I don't think the present system is a good one for India, because a soldier after five or six years' service, at the time he is becoming a valuable man in India, is sent home to join the British army reserve, and his services are for ever after lost to India. Nor do I think special enlistments would make the present system the best.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

I think it would be highly advisable, feasible, and economical to have a local European army in India.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

I consider the alternative (b), *i.e.*, local battalions affiliated to the line battalions at home, would be the most appropriate and feasible.

Brigadier-General F. G. Kempter, Commanding Ceded Districts.

I think if some system could be introduced for keeping European soldiers longer in the country, it would be a greater advantage to the State in every way, both as regards expense and efficiency of regiments. Under the present short-service system, very little work is had out of the men or some of them; for it often now happens that a regiment on first arrival in India has so many weak and sickly lads, that a medical committee sends them to convalescent depôts, and there they sometimes remain for months, and when they join that regiment, they have to go through a course of drill. This remark equally applies to drafts, which come out to join their corps.

There is a constant stream of men going and coming to and from depôts, and, worse than all, yearly batches of time-expired men going home, so that to see a regiment parade in strength is a rare occasion. There seems no rest and really no opportunity for a commanding officer getting his corps into order, as so many men are on the move: added to which he has no old and experienced non-commissioned officers to assist him in maintaining discipline. I should doubt the advisability of going back to the local system. Probably local battalions affiliated to line battalions at home would be the best plan to adopt to meet the difficulty; but even then this arrangement would be disturbed if the affiliated battalion at home is sent off on some service in the colonies.

Brigadier-General J. L. Murray, C.B., Commanding Mooltan Brigade.

Taking both an Indian and imperial view of the question, I consider it would be highly inexpedient to have so large a local army as is now required, and I much doubt its feasibility. Regarding the two proposed alternatives, I cannot give a decided opinion on their comparative advantages without information as to how it is proposed to carry out the affiliated system; but it appears to me that if higher pay and pensions are conceded for lengthened service in India, the present system is the most desirable.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

I am most strongly opposed to the formation of a local European army, believing that such a force would in time become a source of weakness and danger rather than of strength to the Empire. This question does not, I presume, suggest that the whole of the European troops in India should be enlisted for local service and dissociated from the Imperial army; but even should it only be intended that a proportion, say one-half of the European garrison, should belong to a local army, I would still consider the objection to hold good. It is true that the European regiments of the East India Company were splendid fighting machines and performed most excellent service; but a modified degree of discipline only existed in them, and they required considerable management. The local force at that time was in a minority; but, even though this was the case, the mutinous conduct of certain of the corps, on the assumption by Her Majesty of the government of India, was a cause of the deepest anxiety to the Government of the day. Although Indian service is most valuable to every soldier of the British army, affording almost the only opportunity open to him of a practical study of his profession, I believe that service in India alone would have a deteriorating effect both on the morale and physique of any body of troops. However carefully local European regiments might be trained, officered, and disciplined, it would be impossible in practice to secure to them the same status and prestige which would belong to regiments of the British service; and the knowledge that this was the case would help the deteriorating process. The perfectly cosmopolitan character of the army of England, and its freedom from sympathy with any class of the community, are among its highest qualities; and these could not be

looked for in a local army, whose sympathies would first be Indian and local, and imperial only where those interests did not clash with their own. I can imagine how difficult it would be for the Government from time to time to resist the requests, petitions, demands of a local army, which, beginning as a servant, would probably end as a master. Looking at this matter from the point of view of the British army, I would regard with equal disfavor any arrangement which would deprive the regiments of the Imperial army of a tour of duty from time to time in India, as I think such a tour, if not too prolonged, is productive of much advantage to both officers and men. India has always been a good school for practical soldiering; and the extension of the frontier, which has brought us in more immediate contact with warlike tribes, and made frequent collisions with armed bands of marauders probable, will improve its capabilities as the scene of military education. To deprive the British army of these advantages, and limit it to the lessons to be learned at Aldershot, would, I conceive, be a national loss.

Such a system as that indicated in this question, though not so objectionable as a purely local army, is, I consider, very undesirable. The local battalion would, it is true, have a nominal connection with the battalion at home, but in effect it would in time come to hold a very inferior position. Officers who found living in England inconvenient, from any of the many reasons which may be imagined, would be passed or would pass into the Indian battalion, with the natural result of the lowering of the prestige of the corps; and the deteriorating effect of this arrangement would quickly permeate to all ranks. Something similar would also happen in the case of the men, as the best and smartest would seek a return to England, while those alone would remain who disliked the greater drudgery of home soldiering, or who had formed ties and connection in the country, which made their return to England distasteful or impossible. Such battalions—and this holds good of purely local regiments—would necessarily have a large proportion of married soldiers (whose wives would generally be country-born women, Eurasians or even Natives), and thus a heavy item of expense, now daily decreasing, would be entailed on the Government.

The cost of the British army in India may be looked on as the sum which is paid to ensure the safety of the Empire; and though the amount is a heavy one, it is not great when compared with the vast interests it represents. Looking at the matter in all its bearings, I believe that every consideration of policy requires that a force of British soldiers not less than that now garrisoning the country should be maintained in India, and that this force should, as at present, be furnished from the Imperial army and periodically relieved. I cannot conceive any arrangement which would reconcile the demands of Indian service and the existing plan for the formation of a reserve for the home army, to which latter apparently the former has been altogether sacrificed. I think therefore that the Imperial Government must now, in the interests of India, resign all expectation of obtaining from that portion of the army which is employed in India any quota of men for the first reserve. To arrange this matter no change in existing *law* and no legislative enactment seems necessary, the Army Enlistment Act of 1870 appearing amply to meet the requirements of the case. Under that Act soldiers can be enlisted for 12 years, and were so enlisted until the issue of Horse Guards General Order No. 18 of 1878, which directed that all enlistments for infantry should be for short service only, *i.e.*, six years with the colors and six years with the reserve,—an arrangement incompatible with the requirements of Indian service. It would seem sufficient therefore to revert to the enlistment for 12 years, requiring that service from men who were in India, or about to proceed there while under the power given by paragraph 2, clause 3 of the Act, all men whose regiments were serving at home or elsewhere than in India could be permitted to join the reserve after six years' service with the colors. The power to pass men to the reserve before they had completed six years' service is so detrimental to real efficiency, that it ought to be abrogated, or never availed of. This arrangement would of course materially reduce the numbers annually passing into the reserve; but this is unavoidable and only goes to prove what all must be aware of, that a system which suits continental armies, on whom no demands for foreign service are made, is not applicable to an army which has to supply garrisons in every part of the world.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

(a) I think that a local European army in India would be both feasible and in every respect the best that could be.

(b) No; I would not have them affiliated to the battalions at Home.

(c) I would have them, as they were formerly, a separate service expressly for India.

Colonel H. K. Burns, C.B., Secretary to Government of India, Military Department.

(a) It would doubtless be quite feasible to raise and maintain a local European army for India; but while it would be desirable on financial grounds, looking at it from an Indian point of view, I do not think it would now be expedient in the general interests of the Empire.

(b) I doubt if such a measure would answer or could be satisfactorily worked, unless on a double battalion system, one of which should be permanently in India, and to which men enlisting for long terms of service could be sent. From recent accounts the system of linked battalions introduced in the British army appears to have broken down.

(c) I would advocate a continuance of the present system with special arrangements for enlistments or renewals of service for India, so as to obviate the necessity and the enormous expense of the reliefs.

Colonel J. Macdonald, C.B., Secretary to Government of Bombay, Military Department.

(a) The formation of a local European army has much to recommend it. It would cost less than the present system of garrisoning India by troops from home. If adopted at all, it should be so thoroughly, that is to say, the European force in India should be solely local. No batteries or corps belonging to the home establishment should be sent to India. Under this arrangement the necessity for the existing very expensive transport service between England and India would cease. The transfer of troops to and from England would be reduced to a moderate annual supply of recruits to India, and to the carrying home a smaller number of time-expired, invalided or discharged men from India. This transport service could be carried out by contract.

(b) A thoroughly local army would be preferable to creating local battalions to be affiliated to certain line battalions at home. But should this latter course be adopted, it would be more economical than the existing system, and would ensure, equally with a purely local army, the troops being thoroughly acclimatized. The gain, by adopting either a purely local force or by using affiliated battalions for the European garrison for India, would be considerable financially.

But notwithstanding the admitted advantages of having either a purely local army or affiliated battalions for constant service in India, I am of opinion that—

(c) the continuance of the present system, but with special enlistments for India, is by far the most preferable. The chief objection to raising a local European force for India is that it would sooner or later deteriorate. It might perhaps be considered sufficiently good for the requirements of the service in India, but it would eventually become second, and not, as it should be, in every respect equal to the home service. This should be avoided. There should be no distinction in the character or tone of that part of the army serving in India, and the corps employed either at home or in the colonies.

The existence of a local army in India would prevent the troops of the home establishment benefiting by serving in India, which now affords an excellent school for the service at large.

What renders the home troops so expensive in India is their constant relief, and the extravagant manner in which the reliefs are carried out. Much of this would be avoided if the men were enlisted to serve twelve years with the colors, and when their regiments are ordered home, were allowed to volunteer to corps remaining in India.

A reduction in the cost of the European force might also be effected by increasing the strength of battalions. The existing establishment of commissioned officers and regimental staff would be sufficient for the larger number of men. If each battalion serving in India was kept up to the strength of 1,000 to 1,100 rank and file, the services of two or three battalions might be dispensed with, which would save the State a considerable outlay, and would bring down the cost of the European force for India to an amount not excessive, considering the enormous interests at stake.

Colonel J. Michael, C.S.I., Secretary to the Government of Madras, Military Department.

I think that the revival of a local European army in India is feasible and very desirable, and that the best plan would be to have local battalions affiliated to line battalions at home. There would be considerable elasticity in such a system. Officers and men found unsuited to India need not be altogether lost to the service, but might be allowed to exchange into the home battalion; and many other inter-regimental arrangements might be devised, beneficial to the service and conducive to economy.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I think the best arrangement would be to have local battalions affiliated to the battalions at home, permitting of such men as are unfit for service in India to serve at home; or, if this is not found feasible, I would revert to local battalions, but it should be arranged that all officers should have a share of home service. This I think necessary in the interests of discipline; also that men unfit for India should be transferred to serve at home.

These battalions might be formed of volunteers kept up by similar means and by special enlistments.

Colonel D. Standen, Assistant  
Adjutant-General, Burma Division.

(a) I would not advocate a local European army for India, if only for the following reason. The Home Government should most certainly have the power to detach for active service elsewhere any portion of the British army in India under special circumstances of urgent necessity which might at any time arise; provided this could be done—as under good and fitting arrangements it undoubtedly, I consider, could be done—without risking the safety of imperial interests in this country.

(c) I think that the present system should be continued, though some alteration in the existing short-service system should be effected as far as regards India at any rate,—a system involving so very heavy an annual expenditure on “transport charges.”

It is believed, however, that the system in question has not injuriously affected the efficiency of the British army in India to the extent generally supposed; for it has been found that many soldiers come forward to renew their service at the expiration of their first period of limited army service.

Still, if it be decided that the present system of enlistment for short army service is to continue in its integrity, there can be no doubt that special enlistments for India would be highly advantageous, or inducements of some special kind might at least be offered to encourage the men to remain a further period with the colors.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

A local European force for India has everything to recommend it: it is cheaper. Men would enter it from preferring service in India to any other service, and would therefore be contented, which affects much the efficiency of a force. These soldiers would be acclimatized; and although medical men may hold a different opinion, I know by experience that British soldiers after fifteen years in India or even longer service are not knocked up by the hardships of a campaign in the way I hear that the young boys sent out from home as soldiers now are. I do not consider that regiments require to go home to be “brushed up.” The majority of regiments that go home—and I have seen many of them passing through Jubbulpore during the five years I was stationed there—are much more efficient in appearance than those coming out.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

(a) I think there are a good many objections to a purely local European army, both as regards officers and men.

I think that the efficiency of the army in India is increased by having officers who have seen service in other countries. While India is undoubtedly our best military school for officers as affording more chances of seeing active service than any of our other possessions, I think it would be a pity to run the risk of having no officers with wider experiences.

As regards men, it would appear that in case of their health breaking down in India, there would be no way of dispensing with their services except by inflicting hardship on the men, or causing heavy expense to the Indian Government.

Again, I do not think that men should be sent out to India before they are 22 years of age. This is obviously too late an age at which to enlist men; whereas if they were enlisted for local service at an earlier age, it is difficult to see how they could be employed before being sent to India.

A purely local army would almost certainly entail having a large proportion of married men in the ranks,—a state of affairs which not only more or less interferes with the efficiency of a regiment, but causes heavy expense to Government.

If the European army was again made local, the practice of marrying Native women, which has of late years become very rare, would be likely to be of frequent occurrence. This, I think, few would consider to be desirable.

(b) Although perhaps a scheme which would require a great deal of working out, and although the system would require careful watching to prevent abuses, I think on the whole that the plan of having affiliated battalions would prove the best of the three under consideration.

Of course, the short-service system at present in vogue in England would have to be given up, but that appears likely to die a natural death, and is condemned by an immense majority of military men.

With affiliated battalions, officers might be transferable after a certain number of years' service either at home or in India, but with the option of exchanging if they can make the necessary arrangements. Promotion to go on in both battalions; and officers of course to take their chance of transfer on promotion.

It would probably be found that there would always be a sufficient number of officers willing and anxious to serve in India; but they *would not always be the same*, so that one disadvantage of a purely local army would be avoided.

As the adoption of the system under consideration would appear to be dependent upon a reversion to the old system of long service, I would recommend that men should be enlisted for not less than ~~ten~~ years and for general service. For at least two years, and until attaining the age of 22, men would serve with the home battalion or with the combined depots of the home and Indian battalions, should the former be on foreign service. On completing the necessary service they would be liable to be sent to the Indian battalion in such numbers as might be required. Should the number available be in excess of the number required, volunteers might be permitted to go in place of men who wished to remain at home, provided no war was going on. In case of war, of course, men would have to go as it came to their turn.

Should it be found that men were unable to stand the Indian climate, they might be remanded to the home battalion, many a man who is invalided from India being perfectly fit for any service in a temperate climate.

On the expiration of five years, men should have the option of returning to England, or be obliged to do so should the home battalion require them, care being taken that the home battalion never degenerated into a mere depot for the Indian battalion, but that a fair proportion of old soldiers should be maintained in both. By this system it would probably so happen that the home battalion would consist (so far as the first term of enlistment) of men in the first three and last two years of their engagement, while the Indian battalion would be composed of men of between three and eight years' service.

After the completion of ten years' service, it should be optional for men to re-enlist for a further period of, say, seven years for India, or ten years for general service, no man being allowed to re-engage unless his medical history was satisfactory. During the first term of service no soldier should be allowed to marry, and during the second only a limited percentage; and regulations would have to be framed to prevent an undue proportion of the married general service men being sent to the Indian battalions.

The position of sergeants should be improved, and they might all be permitted to marry after ten years' service.

The above is of course a very rough sketch of a system which would require a great deal of thought to elaborate.

(c) Having explained my views under heading (b), I need only add that I should prefer a continuance of the present system, with special enlistments for India, to a local European army.

Captain M. J. King Harman,  
Deputy Assistant Quarter-Master-  
General.

There should certainly be a large local force of *all three arms*, supplemented by regiments and batteries from England composed of men specially enlisted for Indian service.

The present system is utterly unsuited to any country, more especially India.

G. What do you consider to be the best tactical and administrative unit for peace and for active service in India (army-corps, division, brigade), and how should it be constituted?

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding  
Southern Afghanistan Field Force.

It is very desirable to lay down and define tactical units for field service; but the circumstances existing in India do not admit, as far as I can see, of these units being identified with the administrative commands, at any rate in their details. I can see many advantages in forming the forces into army-corps, which shall serve within the limits of the five great local Governments of India; but there would be little profit in discussing the question, unless there is a decided wish to break up the existing machinery,—a step which would involve the abolition of the office of Commander-in-Chief in India and the formation of a War Ministry on something like the French model. The relative advantages and disadvantages of this system were so fully set out by the late Lord Sandhurst when he was in India, that I have nothing to add to them. As regards the constitution of tactical units for field service, I do not think we could do better than follow the home system, at any rate in principle, due allowance being made for local peculiarities.

Lieutenant-General C. T. Cham-  
berlain, O.S.T., late Commanding  
Oudh Division.

Of the three alternatives, I advocate the army-corps—

- (a) to complete organization in all details;
- (b) to secure decentralization to the utmost extent;
- (c) to be a means of localizing Native regiments, which I believe to be essentially necessary on military and political grounds;
- (d) to do away with as many separate commands as possible;
- (e) to relieve the work of head-quarters, especially from many needless references which now waste time.

The constitution of such corps, as laid down for the British army, differing but little from those of European continental armies, which

have been determined after careful consideration and practical experience, might continue as at present, but with an additional number of field-guns.

The physical features of the country and other circumstances must more or less affect the disposition of the various arms; but that would not affect organization.

I consider the best tactical unit on service to be the company; the best tactical and administrative unit for both peace and war to be the division; to consist of engineers, 4 batteries of artillery, 1 brigade of cavalry, and 3 brigades of infantry.

Each regiment, battery, squadron and company complete in itself.

As it is at present.

The constitution of army-corps would be best for India. Four would suffice.

A brigade, constituted as follows:—

- 1 regiment of cavalry.
- 1 battery field artillery.
- 1 regiment European infantry.
- 2 regiments Native infantry.
- 1 company sappers.
- Brigadier-general.
- Deputy assistant adjutant-general.
- Deputy assistant quarter-master-general.
- Baggage-master.
- Staff surgeon.

The division constituted as at present.

I should conceive that the legitimate tactical unit for both purposes is the army-corps. Bengal, Madras, Bombay, and the North-Western Frontier appear natural territorial divisions for such corps. I do not think they should differ in war from their peace organization, excepting in the actual regimental establishments. The strength and details of these corps would necessarily differ considerably, but that need not prevent a uniform organization. Corps to be commanded by lieutenant-generals and to comprise all the troops in the territorial limits. Divisions to be commanded by major-generals, and to consist of three brigades of infantry, a brigade of cavalry, and from four to six batteries of artillery. Brigades to consist of three to four regiments under brigadiers; divisional artillery under senior officers of that arm. Administrative circles should correspond with the territorial commands, the heads of the respective departments being stationed at army-corps head-quarters, and their deputies with the divisions. I should think that an organization of this nature might be effected without increased expense, and without much disturbing the existing locations of troops. Much advantage would result in all points of efficiency, discipline, and economy from getting rid, as far as possible, of small outlying stations and concentrating the troops at the larger ones.

A division appears to me to be the best tactical and administrative unit for peace and for active service. It would of course consist of the usual two brigades. Each brigade would be formed of one British and two Native infantry regiments with horse or field artillery, and with a mountain battery; if necessary, and cavalry.

I consider the brigade the best tactical and administrative unit for peace and for active service in India.

The brigade, consisting of the three arms, is, in my opinion, the best tactical and administrative unit. It admits of easy expansion.

If I understand the question correctly, I should say the division, composed of two or three brigades, with proportion of all other arms. The brigades, both cavalry and infantry, should consist of one British and two Native regiments.

I think the brigade is best adapted for this country to be constituted thus:—

- 1 battery of artillery.
- 1 regiment Native cavalry.
- 1 British infantry regiment.
- 2 regiments of Native infantry, or perhaps 3 complete with its own staff.

Considering the varied nature of active service the Indian army has to perform, and the special distribution of troops required to hold the

Lieutenant-General W. F. Hughes,  
C.B., Commanding Sirhind Division.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

Major-General H. R. Browne,  
Commanding Saugor District.

Major-General J. W. Schneider,  
C.B., Commanding Northern Divi-  
sion, Ahmedabad.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa Field Bri-  
gade.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay District.

Brigadier-General F. G. Kempster,  
Commanding Ceded Districts.

Brigadier-General J. I. Murray,  
C.B., Commanding Mooltan Brigade.

country against internal as well as external enemies, I do not think that any one tactical and administrative unit could be adopted for peace and war, and certainly not for the latter.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

As long as no European power interferes between us and our neighbours, feudatories and subjects, a small and compact force will, I believe, better than a large one, maintain our prestige and obtain at the least expense and risk the maximum of success. I therefore consider the brigade is the best tactical and administrative unit, as, in addition to the foregoing reason, it is evident that by the junction of three or four brigades a division can, when required, be quickly formed, and the expansion could then proceed as far as necessary. In peace time and for the general administration of the army the three formations of brigade, division, and army-corps are necessary to complete a chain of responsibility and avoid the dangers and delays attending on too great a degree of centralization.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
intely Commanding a Brigade.

I prefer the brigade as the most handy and most useful for most work; to be constituted as follows:—

- 1 British regiment.
- 2 Native regiments.
- 1 Native cavalry regiment.
- 1 battery, artillery.
- 1 company sappers.

Colonel J. Macdonald, C.B., Sec-  
retary to Government, Bombay.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

The brigade.

I consider the best tactical and administrative unit for peace in India should be army-corps, to be divided as far as possible into divisions and brigades, having due regard to local requirements; artillery to be similarly distributed.

It does not seem practicable in India to have in every case a distribution of the army-corps so that each division, or even brigade, shall be compact and located at the same place, but they should be told off and occupy their place in each army-corps.

I do not think the division system can be extended to active service in India, and brigades will be the only possible unit for war; but when troops are required, a complete brigade should be taken whenever practicable, or as many troops as are required from any one brigade. In employing small forces less than a division, artillery and also cavalry will have to be attached; but these should also be taken, if possible, from the same division of the army-corps to which the brigade furnishing the infantry belongs.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

I am not sure that I clearly understand the question.

Very much would appear to depend upon the part of India in which troops were serving, either in time of peace or war. I therefore do not attempt to answer the question.

7. Give your views and practical suggestions on the best means for a rapid mobilization of a portion of the army for war.

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding South-  
ern Afghanistan Field Force.

In the Bengal Presidency the troops are, in theory, at all times prepared to take the field at a day's notice. For service in India the troops are in possession of everything needful except transport. What is required to perfect the system is the establishment by regulation of a scale of equipment and establishments suitable for war under all circumstances, as suggested in the answer to question 3, *Troops*. The question of a transport is important; but this is not the place in which it can best be treated.

Lieutenant-General C. T. Cham-  
berlain, C.S.I., late Commanding  
Oudh Division.

In answer to question 3, I mentioned the need for reserves.

In answer to question 6 (clause c), I have noted my belief in the value, or I may add *necessity*, of "localizing" Native troops. I have recorded my opinion that the system of weak single battalions is unsuited to speedy mobilization in the highest degree.

This was strikingly exemplified when troops were suddenly sent to Malta, and again in the late Afghan War.

In the former instance, the 6th Native Infantry, quartered at Lucknow, furnished volunteers to the 31st Native Infantry.

In the second case, all the batteries in Oudh were requisitioned for men and horses to the injury of their own efficiency.

To look the matter plainly in the face, it is necessary to create the means of mobilization.

At present there is no system of transport. There are no reserves to be mobilized, and our organization stands shipwrecked at the very outset!

In writing about "reserves," I of course only deal with the Native army, and I am well satisfied of the advantages to be derived from



*local* regiments, in preference to the present composition of the bulk of the army.

The excellent behaviour of my own corps (1st Bengal Cavalry) during the mutiny, which drew the whole of the ranks *from Delhi and the country within a radius of, at the utmost, 60 miles*, fully satisfied me that the reliance the men had upon each other, and the knowledge of each other's feelings and circumstances were the loadstones which held them together. In fact, they openly ascribed their fidelity to this close borough system.

Upon this principle I believe that our ranks would be far more easily filled, and the service would be far more popular, if certain *locales* furnished the ranks of certain corps.

For instance—

Dinapore, in Bengal Proper,  
Fyzabad, in Oudh.  
Bareilly, in Rohilcund,  
Delhi, in the Punjab,  
Umritsur, ditto,  
Rawal Pindi, ditto,  
Peshawar, ditto

(or any equally convenient centres), might be (and I think should be) the *head-quarters* of a brigade of regiments, one of which would always be quartered there as the nursing battalion, enlisting and drilling recruits, annually drilling the reserves, filling up the ranks of the two, three, or four absent battalions, as may be receiving the sick of these battalions paying the families, and paying the pensioners.

Under some such arrangement, mobilization would be not only simple, but certain and rapid; and the men's relatives and friends would, I believe, come in goodly numbers for enlistment when called upon.

*Esprit de corps* would then be a reality, interesting as it never has been, and there would be a guarantee for fidelity and good behaviour which is now unknown.

The influential men of such districts would be glad to see their sons and relations serving as officers in corps in which they were personally interested.

The rank and file would accept those officers as their known superiors in position, birth, and wealth, and they would be influenced by those officers.

Then there would be a deep sympathy amongst corps and districts; then there would be indifference about others, and probably antipathy (which would not be bad); and above all, there would be the best security for the State against combination and popular disaffection.

None of these advantages obtain under present organization, and I aver that mixed or composite regiments possess all the elements of leaven for evil which leavened the Bengal army so effectually and so rapidly in 1857.

In these particular corps recruits are collected from districts far apart, whose inhabitants differ in race, in customs, in habits, in climate, and in sectarianism; and yet we look to these discordant elements as a source of strength when welded under the hammer of discipline!

Take the matter of recruiting. Most men must be at a distance from the locality of the regiment or depôt to which they are to be sent. Many that are passed as "fit" at the stations nearest to their homes are declared "unfit" on arriving at their destination, *because two sets of officers have to be pleased.*

Even those that are approved have cost the State the expense of their conveyance. Those that are rejected cost double. Now, this outlay would be absolutely unknown under local enlistment for local battalions, and rejections would be unknown.

To my understanding it would be almost impracticable to form reserves of any value if the present organization lasts! How are the men to be called up for drill annually? And how are they to be identified when they join their corps?

I would ask, will the commanding officer of the (cavalry or infantry, as the case may be) regiment take much concern about the reserves of every corps *but his own*? And will not his own reserves be equally perfunctorily cared for by the other commanding officers wherever they may be quartered? Yet some such compromise would have to be come to, for the State would hardly pay annually for reserve men travelling indiscriminately about the country to and from regimental head-quarters.

In time of war, when they would have to join, there would probably be *much* confusion and some considerable inefficiency.

On the other hand, local reserves would assemble without cost, *without* confusion, and with cheerfulness. The delicate and the dull would at once be drafted to the battalion at head-quarters, releasing

the more efficient and capable men for the active battalions, and the only outlay would be in despatching to the front.

Then, again, by having local battalions Government could utilize many men of the invalid establishment, who are often capable of doing cantonment duties. There are, I believe, *hundreds* of those about.

It would be very wrong to run away with the idea that all men invalided are invalids!

Take the primary causes:—

(a) Of those who are real invalids from existing ill-health, some, aye several, recover thoroughly after a long residence at their homes.

(b) Some men work up for the invalid establishment owing to disappointments at not being promoted or from some caprice.

(c) Some are invalided by commanding officers for "military cause"—slovenly, bad duty men, stupid on parade, and so on.

Many who repent, and others who know not the comforts of a full stomach, would be only too glad to exchange their pittance of a pension for re-employment, even temporary; but anyhow as the State has a claim upon them, they should be reckoned upon as a sort of help in time of war.

Pension paymasters could be amongst the officers of the past if pensions could be paid at local head-quarters, after medical examination as to fitness, and after due classification of the kind of duty for which capable. In this way, many would do something in time of need, instead of eating the bread of idleness; moreover, *then frauds upon the pension* would be impossible, as every man would be known.

Invalids should not be discharged from regiments until found to be absolutely unfit for *any* duty, but their names should be "seconded," and they should understand that disobedience to a summons entailed dismissal from pension.

With local battalions long furloughs would be quite unnecessary, whilst frequent short leaves might be practicable. Those whose family business necessitated their presence at their homes could be drafted to the local battalion, and thence transferred to the reserve upon reserved pay, reserve men being sent to the colors to fill their vacancies.

This course would be *immensely popular*, being the very best advertisement of the charms of Government employ.\*

Without *fixed head-quarters of battalions* in brigade, I believe effective mobilization to be a negative quantity.

For the immediate creation of reserves in *infantry*, I would open permanent furlough upon some small pay, 2 or 3 rupees a month, recruiting in lieu or absorbing the men in excess of peace strength.

The *cavalry* branch will demand special consideration, as horses and ponies must be kept up efficiently. Expense under this head is unavoidable.

It may be that commandants have been asked to submit some scheme of the kind. At their homes, of course, the men could feed animals economically, and probably they would do a good deal of breeding to boot. This would be advantageous every way.

Finally, it seems to me that by establishing strong brigades, it might be easy to return to the system of *regimental promotion*, all officers in each brigade being interchangeable for service in any battalion as in the Rifle Brigade.

In fact, then, the staff corps should be abolished by drafting officers into cavalry and infantry regiments, "seconding" all on staff employ.

There can be no relief from the extravagance of the staff corps system, so long as it has no less than 42 general officers and 527 field officers, or 569 superior officers to 418 captains and subalterns.

With regard to the transport required in the process of mobilization, I would suggest that district officers should be required to ascertain the available means, and to keep the chief military commander informed thereon, so that data be available in case of the resources of the cavalry being demanded.

By keeping certain divisions or brigades fully equipped for immediate service and complete in camp equipage (of the lightest description compatible with efficiency) and marching establishments. Transport cattle and carts sufficient to move a wing of a regiment and half a battery should be attached to each regiment and battery of the force so equipped. If it should be necessary on an emergency to move a full regiment or battery, other regiments or batteries of the same or another brigade might be indented on for transport cattle; and the regiment or battery thus denuded of transport would indent on the brigade reserve (see answer to question 7, Transport J) for an immediate supply.

Lieutenant-General W. F. Hughes,  
C.B., Commanding Sirhind Division.

\* The relief of the local battalion would bring the men of the other battalions to their homes in turn.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

I can see no difficulty in a rapid mobilization of a portion of the army for war, if regimental transport is kept up under a European officer with non-commissioned officers and men properly instructed in the care of mules, loading, feeding, fitting, saddling, &c., &c. Troops first for service should be disposed in peace on lines of rail, consideration being taken as to where their services will most likely be required.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

This would vary so much in different parts of India, and so much information on details which I have not got is required, that I can give no practical suggestions on this point.

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad  
Subsidiary Force.

Tell off a certain number of corps of the different branches of the service to be always ready and complete in every respect for active service. Such corps must be stationed close to the line of railway on the same principle that certain troops in each district or division are told off for a moveable column.

Railway carriages should be better adapted for the conveyance of horses and cattle than they are.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

I do not quite know how to answer this question. Mobilization means calling out reserves of men and horses and placing the army on a war footing from the peace establishment. In this country no reserves exist, and the army is kept practically always on a war footing. The only thing requisite to enable it to move anywhere is carriage, and in the absence of any organized transport, that must be supplied by the civil authorities. The time necessary to collect it would depend on so many contingencies, that it is impossible to make any calculation.

Major-General H. B. Browne,  
Commanding Saugor District.

The situation of the army in India is very peculiar and exceptional, distributed as it is over an immense extent of territory, chiefly in comparatively small stations. I hardly think that schemes for concentration are practicable. In all Indian wars the necessary troops have been got together by detachments in such a manner as not seriously to inconvenience the localities from which they have been drawn, of which the recent concentration on the North-Western Frontier is an example. As far as I have had the means of studying that concentration, it has been under the circumstances remarkable for the rapidity and precision with which it was effected. But it had nearly reached its limit. Corps south of a certain line had begun to feel very sensibly the drafts made upon them to supplement the different services with the troops in the field. The first step in measures for more rapid and extensive concentration must be the organization of the army itself in corps, divisions, and brigades, with their respective staffs. Regiments and corps brought hastily together, unknown to each other and to the staff appointed to them, can never develop the powers of concentration and movement that they would otherwise be capable of.

Major-General J. W. Schneider,  
C.B., Commanding Northern Afghan-  
istan Field Force.

This could be best carried out by abolishing the present system of scattering single regiments over the Presidency, and by bringing an entire brigade together at given strategical points. The lines of communication could be kept open by properly organized police, commanded by military officers.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

Troops in India may be said to be always ready for war: the question of mobilizing them rests mainly on the means of transport available for the particular service required, and the state of preparation of the supply departments.

Most of the large military stations in this presidency are on railway lines; and, if required to move by rail, mobilization would be rapid. If, on the other hand, the service to be performed was of a local character involving a march through the country, the civil departments would be called on to provide the necessary carriage.

The description of carriage varies according to localities, and the time required to collect it cannot always be exactly stated.

At Poona it would take two days to provide carts for a Native infantry regiment, and four or five days for a regiment of British infantry.

I cannot see any method by which the present system can be improved except by organizing a permanent transport train; and, in my opinion, the circumstances of India do not require the adoption of such a costly measure.

Brigadier-General H. H. A.  
Wood, C.B., Commanding Deesa  
Field Brigade.

The short service system gives undoubtedly the most rapid means of calling into active service troops not previously on a war establishment; but it might not be considered advantageous to distribute a large number of Native soldiers, subject to little or no control, throughout India.

A safer course would be to oblige the pensioners (of which there must always be a considerable body) to take in time of war the garrison duties, to the extent required, of the regular army.

Whilst so embodied, they should, of course, be put on the same footing with regard to pay as the regular army, and they would thus, as it were, take much the place of the militia at home; more advantage might also be taken, and with perfect safety, of the volunteer movement by the formation, in India, of Eurasian and Parsi volunteer corps. The latter affect anything English, and would form a very effective body under European officers; they might be computed roughly at between 40,000 and 50,000 in the presidency town of Bombay alone. Surat is stated to contain even more; and in Baroda, Poona, and several other places in India, they are found in large numbers. As a rule, they speak English, and their interests may almost be considered identical with our own in the maintenance of British Government.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

Brigades should be located in certain strategical positions. I would beg to refer my "Notes on Re-organization," p. 145.

If the third battalion system was introduced, the service battalions should be located in brigades in these positions.

Brigadier-General F. G. Kemper, Commanding Ceded Districts.

I don't fully take in this question as to the best means of mobilization of a portion of the army. I only know that brigades must be brought together to form divisions, and so on.

I think troops would be better placed, if complete brigades were sent on service, *i.e.*, brigades as they stand with their own staff, as they know each other and are accustomed to act together.

Brigadier-General J. I. Murray, C.B., Commanding Mooltan Brigade.

Troops should be, as much as possible, located on lines of railway; and where this is not practicable, and carriage is not readily procurable, it should, if considered necessary, be kept up for the purpose.

The points of assembly should, as much as possible, be at railway junctions, such as Allahabad and Lahore.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

I understand the term mobilization, as used in this question, to refer to the preparation of troops generally for active service, as there is no source from which regiments in India can be rapidly brought up to war strength, nor any reserves or unembodied corps to be mobilized.

The army of India may therefore be said to be always on a war footing, and I fear that for many years yet it will not be possible to dispense with this precaution, as it seems to me necessary for the safety of the Empire to maintain in this country the *appearance* as well as the reality of strength. To an European administrator weak cadres and a strong reserve represents a satisfactory state of things, but here a palpable display of military strength seems a necessity. It would therefore appear that, as the mobilization of a portion of the army for war does not entail the calling in of the reserves, the rapidity with which the preparations and concentration of the troops can be effected will depend on the efficiency of the supply departments, the existence in the Government stores, or in private hands, of the various articles required for the soldiers' outfit, and the completeness of the lines of communication with the spot at which the army is to be formed. These are matters which demand ever watchful care in peace time and the expenditure of State funds.

Colonel J. A. Tytler, C.B., V.C., Commanding 4th Goorkhas, and lately Commanding a Brigade.

I do not think that there should be any difficulty in mobilizing a portion of the army for war, were it always kept up on a war footing, as it should be in a country like India, with a good moveable column transport always ready to hand.

Colonel J. Macdonald, C.B., Secretary to Government of Bombay, Military Department.

As reserves do not exist, the process of mobilization would consist of increasing the strength of certain batteries and regiments to a war footing and bringing them together where their equipment could be more conveniently carried out. The rapidity with which mobilization could be effected would, therefore, mainly depend upon the capabilities of the several departments of supply, and the facilities for concentration afforded by the lines of communication. To ensure rapid mobilization, all details of the process require to be carefully watched even during times of peace, and must necessarily cause considerable expenditure.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

If army-corps are established, a certain proportion of brigades with transport, &c., should be kept up to war strength.

I would, in the absence of all practicability to move an army-corps or division intact from any one district or circle, form divisions of such brigades as are kept ready for service, in the meanwhile, expanding the nucleus of a certain number of the remaining brigades on peace establishment to war strength. Thus in a short time one army-corps composed of divisions formed as above suggested could soon be in the field.

It is manifestly impossible to keep any one army-corps or division in itself intact ready to take the field, and for political reasons impossible to move them if they were formed in such bodies.

Under these circumstances, I think the brigade will be the only unit possible and practicable to move intact; and as such, the course above suggested seems to me the only feasible one of dealing with this question.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

Provide regiments permanently with mules for carriage of ammunition to be used in the puckallie establishment in time of peace, register name and residence of owner and description of carriage in his possession throughout each civil division, legalize the pressing of carriage, and any regiment might be mobilized without difficulty in 72 hours.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

The strength and composition of the force to be assembled having been decided upon, the transport animals (or a large proportion of them) attached to various regiments should at once be sent to the nearest railway station from whence they could be despatched to the appointed rendezvous.

Of course, if troops were sent from the station, the carriage would be utilized by them, and supplemented, if necessary, by carriage drawn from the district through the civil authorities; the additional carriage to be discharged at the railway station if it were found that the total amount of carriage drawn from regiments would be sufficient for the wants of the force, or if it were ascertained that extra carriage could be more cheaply and easily provided at the place where the troops would again leave the rail, or be assembled.

When carriage was thus withdrawn from regiments, it would be replaced locally as soon as possible.

Elephants, horses, mules, and bullocks can be very easily conveyed by train, ordinary cattle-trucks being easily adapted for the former. I have never seen camels conveyed by rail, but can see no difficulty in doing so.

The resources of every district as regards the supply of baggage-animals should, of course, be known to the civil authorities; and a register of all such animals should be kept, so that they might quickly be obtained when required.

Transport officers should at once be nominated in numbers proportioned to the force, and the transport service at once organized by brigades and divisions. The regimental transport ought to be complete, the system recommended in reply (3), Transport, being in force.

The capabilities of the railway as regards the conveyance of troops and animals of all sorts should be generally known. There seems to be little difficulty in arranging the proper working of troop trains: at the commencement of the late campaign, the railway companies, as far as I saw, were quite equal to the emergency, and worked admirably.

8. In what time could the troops in the district or division under your command (or with which you are connected) be concentrated near the most adjacent line of railway, leaving sufficient for the garrison of the several stations?

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding  
Southern Afghanistan Field Force.

This question does not appear to apply to the force under my command.

Lieutenant-General C. T. Cham-  
berlain, late Commanding Oudh  
Division.

The main body of the troops quartered in Oudh are on the line of rail at Lucknow and Fyzabad.

If transport were available, the troops from Sitapur (50 miles) could rendezvous at Lucknow comfortably in three days. The Native infantry regiment at Goruckpore could reach Fyzabad in four days if the Gogra river were not in flood, or say five days, as the bridge of boats is not always opposite cantonments, and a long detour would have to be made to reach it in preference to risking more delays at a badly formed ferry, such as exists at Ajoodya.

Lieutenant-General W. T.  
Hughes, C.B., Commanding Sirhind  
Division.

The troops at Umballa and Jullunder (in the Sirhind Division) are on the line of railway. Those of the hill stations could all be concentrated at Umballa within five days (perhaps four days) of the date on which they are supplied with transport.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

Mhow and Nusseerabad, where the greater portions of the troops in the division are stationed, are both on a line of rail.

Neemuch will be within 30 miles of a railway by the end of the year. This line will soon run to Neemuch itself, and so on to Nusseerabad. Augur and Mehidpore are 40 and 24 miles respectively from a line of rail, and would take, the former three, the latter two, days to reach it.

Major General J. Rosa, C.B., Com-  
manding Presidency District.

Depends upon the notice required by the Commissariat Department to provide the carriage.

If immediately available, the troops in the command could be despatched to the several railway stations as follows:—

From Fort William to Howrah in	4	hours
„ Alipore to ditto	5½	„
„ Dum-Dum to ditto	6	„
„ Barrackpore to ditto	8	„
„ Berhampore to Azimgurh	7	„
„ Nay Doonka to Synthia	5	days.
„ Darjeeling to Silligori	5	„
„ Hazaribagh to Giridi	7	„
„ Dorunda to ditto	11	„

All the troops of this force are stationed at Secunderabad, where there is a railway station. No corps is more than three miles from a railway station.

Brigadier-General J. Burrows,  
Quarter-Master-General, Bombay  
Army.

The troops in the Poona division could be concentrated on the Great Indian Peninsula line of railway at ten days' notice.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

In four days the whole division could be concentrated at Saharanpur, provided sufficient notice was given for collection of carriage and rolling-stock previously.

Major-General H. E. Browne,  
Commanding Saugor District.

The point of concentration on a line of railway in the Saugor district would be Jubbulpore. The time of concentration must be calculated from the most distant station, *viz.*, seventeen marches without halt, to which must be added ten days for collection of transport. Twenty-seven days would therefore, "unless under circumstances of great emergency and forced marches," be the time required.

Major-General J. W. Schneider,  
C.B., Commanding Northern Division,  
Ahmedabad.

The stations of Surat, Baroda, Ahmedabad in the Northern Division, are actually on the line of railway. Deesa will be within 20 miles of the State line, passing Pahlunpur to Nusseerabad, in November next. It may be said that the troops at these four stations can be concentrated at any given point at a very short notice. I apprehend that the regiment at Bhuj will sooner or later be withdrawn from that station, as being wholly unnecessary for the maintenance of order in Kutch. This would only leave the garrison at Rajkote to be considered. The troops are within 70 miles of the railway at Wadhwan, and could be concentrated with the rest of the division within a week.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa Field Brigade.

A few hours might see the troops concentrated at Pahlunpur, 17 miles from Deesa, and at which place it is anticipated the railway will be opened to Bombay and Ajmere this cold season; but as carriage in addition to the field column carriage would be required, sufficient could not, even with the Political Agent's assistance, be obtained under ten days' notice at the soonest.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay District.

This question does not apply to the Bombay garrison I command.

Brigadier-General F. G. Kemper,  
Commanding Ceded Districts.

The troops of this district under my command are concentrated in one station, and there is a railway on the spot, so that they could be got ready in a few hours, provided I had authority to draw at once the necessary equipments from the different departments.

Brigadier-General J. I. Murray,  
C.B., Commanding Mooltan Brigade.

As regards the Mooltan Brigade, in a few hours, the railway being in close proximity to the cantonments.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

This question has been fully replied to by the Quarter-Master-General, and it is not therefore necessary for me to record the information here.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

It would all depend, I should say, whether there was carriage ready for them and the distance they had to travel.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay,  
Military Department.

Accurate information will be given by the Quarter-Master-General.

Major A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

I do not consider that the Khyber Brigade is stronger than is required to hold the pass, and therefore no troops could be spared from it.

9. With a view of carrying out decentralization as far as possible, and making the general officer responsible for everything which occurs within his command, do you consider it desirable that the several departmental officers should be placed directly under his orders, relative to the ordinary conduct of their duties, the departmental officers reporting to the heads of their departments as under present arrangements?

Lieutenant-General Sir D. M. Stewart,  
K.C.B., Commanding  
Southern Afghanistan Field Force.

The tendency in departments is no doubt to consider the officers serving in them as independent of general officers. If general officers

choose, however, to exercise their powers, I do not think the present system need be disturbed, at any rate in quarters. It is of course impossible to give general officers disbursing powers; but, short of this, their authority seems to me sufficient. On field service general officers are obviously invested with larger powers by the Government.

Lieutenant-General C. T. Chamberlain, C.B.I., late Commanding Oudh Division.

I do not see the need for any alteration of existing custom. To all intents and purposes a general officer has now quite as much control as is needed or as departmental rules (which are "under authority" always) permit. I have always found all departmental officers most anxious to conform to any wishes expressed, if not contrary to regulation.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

A man can only have one real master—the head of his department.

It is most desirable that departmental officers should be directly under the orders of the officer commanding the division.

Lieutenant-General J. Forbes, Commanding Mhow Division.

The heads of the commissariat and transport should be a part of the divisional staff, with executive officers and subordinates attached to brigades, regiments, and batteries.

I consider there should be a "chief of the staff" with army head-quarters, with whom general officers in command of an army-corps should communicate; that departmental officers should report only to the chief of the staff of the army-corps to which they are attached. General officers are too much at present but channels of communication, looking to presidency army head-quarters for guidance and orders on points which should be left to themselves to settle, referring almost every question, being either afraid of responsibility or not having the authority to deal with it.

Major-General J. Ross, C.B., Commanding Presidency District.

This is very desirable.

Major-General A. H. Macintyre, C.B., Commanding Hyderabad Subsidiary Force.

All the departments are under me, reporting direct to the heads of the various departments.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

Most decidedly.

Major-General H. R. Browne, Commanding Saugor District.

Yes, I consider that many advantages would result from such a system. Time and much correspondence would be saved, and an infinite number of references to army head-quarters got rid of. It is only reasonable that such responsibilities should devolve upon the general officer in command. The departmental officers would still be his legitimate advisers, though receiving their orders from him.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

Departmental officers like the assistant adjutant-general and the assistant quarter-master-general may be said to be already directly under the general officer's orders. It would, no doubt, be desirable that other departmental officers, such as the executive commissariat officer, the executive engineer, and ordnance and medical administrative officers, should be more immediately under his control, as in the German army; but this would, I conceive, involve a complete change in budget, audit and control arrangements.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

I am certainly of opinion that a general officer should be held responsible for everything that occurs within his command; and this cannot be the case unless all executive officers are placed under his immediate orders.

Brigadier-General F. W. Jebb, Adjutant-General, Madras Army.

I consider no departmental officer connected with a force under a general officer should be able to set the general's authority at defiance, even in departmental matters. Should such an officer be ordered to act contrary to departmental custom, he would represent the case to the head of the department; and he would judge whether it was a matter to bring to the notice of the Commander-in-Chief or Government to prevent a recurrence.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

The departmental officers are, as far as my experience goes, already under the general officer as regards their ordinary duties, with the exception of the Public Works Department; and I recommend no change.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

Most certainly; and as far as the Adjutant-General's and Quarter-Master-General's Departments are concerned, they do so in this presidency. Departmental officers should not report independently, and without the knowledge of their general, to the heads of their departments.

Brigadier-General F. G. Kempster, Commanding Ceded Districts.

I do not allow it in my command.

I consider such an arrangement very desirable. It is obvious that immense delay would be saved if the general officer was empowered to sanction indents at once without forwarding them to heads of

departments. The equipments and necessaries required being authorized by regulation, I cannot perceive why the officer commanding should not be permitted to sanction the issue.

Yes; directly under his orders as executive officers.

Brigadier General J. I. Murray,  
C.B., Commanding Mooltan Brigade.  
Brigadier-General H. P. Brooke,  
Adjutant-General, Bombay Army.

The adoption of the system sketched out in this question is most desirable, and there appears to be no real difficulty in carrying it out. A similar principle should apply through all grades from the Commander-in-Chief, under whose orders should be the heads of the commissariat, medical, veterinary, ordnance, and transport departments, to the officer commanding a station, to whom the officials of these departments should be directly responsible for the ordinary conduct of their duties. In the case of the engineer department there appears to me to be an opening for an important improvement, carrying with it a large measure of decentralization, which in this department especially seems so urgently required. The measure I would propose is the appointment to the staff of the Commander-in-Chief and of the generals commanding corps, divisions and brigades, of an officer of engineers who would be the adviser of the general officer in all matters connected with the maintenance and repair, or even possibly the construction of military works and buildings, and the medium of communication between the general officers and the department of public works, which would, as at present, remain a civil department under the Supreme Government. Every year Government in the department of public works, having had before them the proposals made by general officers commanding corps and approved by the Commander-in-Chief, for the works to be carried on in their commands, would assign to each a certain sum of money, for the correct and economical disposal of which the engineer officer (who would have the necessary staff officers and subordinates) would be directly responsible to the department of public works. Under some such system, the elaboration of which does not appear difficult, the military works would be altogether separated from the civil, the decision as to the amount of money to be spent would, as now, rest with Government, the expenditure would be checked, as it is at present, by the Public Works Department, while general officers would be invested with a distinct power in connection with works in progress in their command, of which they now know nothing, and acquire therefrom an interest in this branch of the public service, which would doubtless be of the highest advantage to the State. In addition, the general officer would always have at his disposal the advice and skill of a trained engineer officer,—assistance which is now often needed and not always procurable. The officers of the Commissariat Department form part of the staff of the officer commanding a station, who can, under certain restrictions defined by Government, issue to them such orders as he may deem necessary. In connection with this department, the necessity is that the head of it should be under the Commander-in-Chief, who would however be required to obtain the sanction of Government before issuing orders productive of unauthorized expenditure. The Medical Department, as at present organized, presents innumerable anomalies. The dual system under which an officer in command of a station has to consult two medical officers in all matters connected with the troops, has nothing to recommend it and should be abolished. The direct subordination to Government of the surgeons-general of British troops, and their consequent independence of the Commanders-in-Chief, seems indefensible, especially in the minor presidencies, the Governments of which have practically no control over the British troops serving in their limits. There should be a distinct line of military medical supervision, the officers of which, from the surgeon-general downwards, should be attached to the staff of the general officers in command, and have no civil duties to perform.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Ghorkhas, and  
lately Commanding a Brigade.

I certainly consider that it would be far better to make the general officer responsible for everything that occurred under his command, and that departmental officers should be placed directly under his orders. This would enable him to act at once and on his own responsibility when any emergency occurred. The departmental officers might afterwards report to the heads of their departments.

Colonel H. K. Burne, C.B., Secretary  
to Government of India, Military  
Department.

Certainly; but the arrangement suggested is one that already exists and always has been in practice, save as regards the officers of the engineer department employed on public works, who are to some extent independent.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay,  
Military Department.

Certainly, I would place all, including commissariat, ordnance, medical and engineering staff, directly under the orders of the general commanding division or district. I see no objection to placing the heads of these several departments, with the exception of the Public



Works Department, completely under the orders of the Commander-in-Chief. And as nearly all the officers of the royal engineers serving in this country are employed under the Public Works Department, it would be necessary to place an experienced officer of the Engineers on the staff of the officer commanding the army-corps, in order that he might advise in respect to expenditure on military works, including quarters and communications, the requirements of the sapper corps, the pontoon train, and in connection with the defence of fortified positions, &c.

Colonel J. Michael, C.S.I., Secretary to Government of Madras, Military Department.

No change seems required in the present relative positions of general officers and the departmental officers in their command. As far as I am aware, little friction has been felt in this presidency under existing arrangements.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

Yes; I consider that the several departmental officers should be placed directly under the orders of the general officer relative to the ordinary conduct of their duties; but to make this work effectually, I think all general officers should have fuller powers than they now have within their commands; that increased sums of money for current expenditure should be at their disposal; and that they should be empowered to confirm proceedings of station boards, as also to sanction recommendations of commanding officers, not involving great expenditure, without reference to army head-quarters.

Much correspondence would be saved, such as the necessity of going to Government for a few horses to have a ration of dry grass issued to them, or to strike off stores which have been stolen or lost under exceptional circumstances, and many other minor matters too numerous to detail, and which I submit the Government of India should not be troubled with.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

I would not advocate any alteration in the prevailing system, which works well. Commissariat officers (for example) in charge of divisions and stations are already subject to the orders of the general or other officer commanding on all matters that are not of a purely departmental nature.

Lieutenant-Colonel H. A. Little, Officiating Deputy Assistant Quarter-Master-General.

The general officer should be the paramount authority in his command, and all departmental officers be part of the general staff of the command, just as the assistant adjutant-general or assistant quarter-master-general. No references to the heads of departments should be allowed except through the general commanding, and all discouraged except from him and at his initiation. General officers should be encouraged to dispose of all matters connected with their own commands and all under their orders made to realize that there should be no appeal beyond the general, except under the most exceptional circumstances. The executive commissariat officer should be the general's staff officer for supply and transport, so with the executive engineer, &c., &c. Now an executive commissariat officer or an executive engineer is required to comply with the wishes of the general officer so long as they are not at variance with departmental regulations. All officers in the command should be bound to obey the orders of the general officer, and he alone, as far as they are concerned, should be the interpreter of the regulations.

Major H. Collett, Assistant Quarter-Master-General.

Yes. I certainly think that departmental officers should be placed directly under the orders of general officers.

The present condition of our general officers commanding divisions and districts is quite lamentable: they are tied hand and foot, and if a general officer prefers it, he need never undertake greater responsibilities than those of a post office clerk. References to head-quarters are required on the most trivial subjects. If a privy is required for a barrack, the Commander-in-Chief must "approve" the site before the building is commenced. If a few regimental tents have to be pitched to relieve an overcrowded barrack, say at Peshawar, "permission" must be first sought from Simla. This was positively ordered in a Quarter-Master-General's circular issued two or three years ago. In fact, if a general prefers it, he personally need never incur any responsibility at all. This system must manifestly be wrong, and it will be a very great advantage to the army when general officers are permitted to command their own divisions. If this were accomplished, the establishments of staff officers and clerks at army head-quarters might be cut down to half their present number with a great gain to military efficiency, and to the comfort of the army. I have heard it said that general officers will not incur responsibility, and that it is not the Simla staff, but the general officers themselves, who cause centralization. I do not myself believe this; but if a general will not perform the duties of his post, he ought to be turned out. The remedy is simple enough. There are several members of the Commission who are no doubt fully aware of the petty and trivial character of a large proportion of the

army head-quarter correspondence. For those who are not, it would be very instructive if a file of "drafts" were called for. It seems to me that this state of things is mainly due to the desire to make the regulations of the army so minute and detailed as to provide for every case that can arise.

This is impossible: and so it comes to pass that, whenever anything occurs which has not been exactly foreseen by the compiler of the army regulations, a "reference" is forthwith made to head-quarters.

Now it seems to me that the proper system on which an army should be administered is for the regulations to be general and not too minute or particular, and for general officers to be required to interpret them according to the best of their judgment for the good of the service.

Absolute uniformity may perhaps have to be sacrificed, but the public will certainly be better and more cheaply served than under the present system.

Besides, uniformity is practically unattainable, and it is much better for the army to be governed by intelligent men than by unthinking machines, even though these latter may possess the advantage of having their motions directed from Simla.

Undoubtedly. It would save much delay, and facilitate business in every way. It is absurd that the general officer should not be able to order what he knows to be necessary without reference to the head of a department.

Major-General A. A. A. Kinloch,  
Deputy Assistant Quarter-Master-General.

10. Is there any object in the maintenance of three presidential armies; and could not the advantages now derived from the maintenance of such armies be obtained in a greater degree by substituting for these four or more army-corps, localized in such a manner as to secure the representation in the army of all the classes of which the present presidential armies are composed?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

I do not see that one of the alternative proposals contained in this question has any advantage over the other, as a matter of pure military efficiency. It is a mere matter of detail whether the forces in the different presidencies are commanded as they now are, or whether they are broken up into army-corps. Their fighting power will be very much the same in either case. Some economies might be obtained by the abolition of the Commanders-in-Chief of the different armies, and the substitution of commanders of army-corps, with staffs of inferior status; but I fear the formation of a centralized war department would swallow up most of the savings. I have not suggested the placing of the three armies under one Commander-in-Chief, because he could not well control them all in the present system; and if the duties now performed by the Commanders-in-Chief are delegated to corps commanders, the necessity for a Commander-in-Chief in India would not be apparent. There are, however, so many political questions involved in this measure, with which I have only a limited acquaintance, that I abstain from giving a decided opinion on it.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

This proposal accords very much with my view of the advisability of *localizing* the troops in such a manner as shall render speedy mobilization practicable.

Now that telegraphs and railways have secured such rapid means of communication and transport, I see no special reason for retaining the titles of three separate armies; but extended powers must be given to the commanders of army-corps.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

None whatever.

There should be four army-corps for the whole of India, lieutenant-generals' commands. These lieutenant-generals should report direct to the Commander-in-Chief. Native regiments should be class regiments, each recruited within certain territorial limits.

Lieutenant-General J. Forbes, Commanding Mhow Division.

I consider that army-corps, under one Commander-in-Chief, would be better than the three presidential armies.

Major-General J. Ross, C.B., Commanding Presidency District.

No; the substitution of four army-corps would be most advantageous.

Major-General A. H. Macintyre, C.B., Commanding Hyderabad Subordinate Force.

I do not see what good would result from doing away with presidential armies, which system I consider to be by far the best.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

Theoretically, doubtless, the formation of the whole Indian army into corps of amalgamated races appears the best, but practically, look-

ing at the great extent of country to be occupied, and the different customs of the men composing the several armies, I think the present system is the most convenient.

Major-General J. W. Schneider,  
c.B., Commanding Northern Division,  
Ahmedabad.

In my judgment, the great sub-divisions of the presidential armies of India cannot be too rigidly maintained as a check one against the other. It is already found difficult to recruit the ranks of the Native infantry with sepoys of the old stamp and physique, and this difficulty would be greatly increased if recruiting were required for general service in India. The Bombay sepoy is of very domestic habits, and the lines are full of families—the best guarantee for his loyalty and good conduct. To be liable to be sent to very distant points in India for ordinary garrison duty would assuredly make the service most distasteful to the sepoy. It would, in fact, be foreign service when it is remembered that some fifty dialects are spoken in India.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

I consider that the maintenance of the three presidential armies is essential to the safety of the Indian Empire; and I do not see how the advantages now derived from their maintenance could be obtained in a greater degree by the substitution of army-corps.

Any measure which now or hereafter might tend to lessen the distinctive character of the three presidential armies is most strongly to be deprecated.

As they now exist, the numbers are sufficiently near to give the desired equilibrium: for, although Bengal has a Native army largely in excess of Madras and Bombay, it is composed of so many distinct nationalities, that a combination of the whole can never occur.

At present a limited number of Hindustan and Punjab men are permitted to enlist in the Bombay Army. This is of doubtful advantage; and I think it would be advisable to restrict recruiting to the territorial limits of each presidency.

Brigadier-General H. H. A. Wood,  
c.B., Commanding Deesa Field  
Brigade.

The maintenance of the three presidential armies admits of independent action and decentralization, and is therefore most desirable.

Brigadier-General C. T. Aitchison,  
c.B., Commanding Bombay District.

I am a strong advocate for the maintenance of the three presidential armies distinct as now. Politically it is our best safeguard.

A localized army-corps, representing all classes and castes as proposed, would not in my opinion be nearly so good.

Brigadier-General F. G. Kemper,  
Commanding Ceded Districts.

The great object is, I presume, on political grounds, thereby holding one against the other in case of necessity. Any one being in India in 1857 could perceive the advantage of the three armies being distinct. I can see no objection to four or more armies replacing these three, so long as the representatives of all the classes of which the present armies are composed are maintained. The less the three are amalgamated, the greater the security in my opinion.

Brigadier-General J. I. Murray,  
c.B., Commanding Mooltan Brigade.

The introduction of railways and telegraphs has, in my opinion, removed the only objections, and I am in favor of the substitution of army-corps under the Commander-in-Chief.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

This question involves issues of the greatest moment, demanding the most careful consideration. It appears to me to be of vital importance to the safety of the Empire that we should maintain and encourage the distinction of race, feelings, and habits, which have heretofore kept the various great sections of the people of this country from coalescing, and becoming a homogenous race, to whom *national* feeling and *national* cohesion would be natural and possible. Our successes and our safety have been owing as much to the absence of any *national* feeling among the people of India, as to our arms, or the superior quality of our race. By sheer force of numbers the people could have rendered our rule impossible were they able to find any common ground on which they could meet and agree. In our interests, and in theirs, it is therefore necessary to maintain the distinctions which make such a union impossible. And it is in the highest degree important that this principle should be applied to the organization of the Native army. Although it is admitted that certain classes produce better fighting material than others, the strongest opposition should be offered to any one class, no matter how good its fighting qualities, being allowed to obtain too great a preponderance or power. I am aware that it is argued—and the argument has the appearance of soundness—that it is useless to enlist as soldiers those who are not by tradition, or physique, fighting men. Were the Indian army intended only for service out of India, this argument would be unanswerable, but it loses all its force when the peculiar position of the Indian army—an army of mercenaries holding its own country against the invaders—is considered. I reply then to those who use this argument, that the men to whom they refer, though not equal in the first instance to the more distinctly warlike classes, such as the Sikh, the Pathan, the Mahratta, the Rajpoot, or the Goor-

kha, are by no means so despicable as is supposed, and that if well selected and well commanded, they can be made efficient soldiers, very fit, when led by British officers, to meet on more than an equality the more warlike races who, when in opposition to us, would have lost the directing influence of their English leaders. It is necessary, moreover, that employment should be found for men of these classes who would otherwise be the nucleus of bands of discontented wanderers open to the offers and the seducements of the many seditious characters who must necessarily be found in this vast country. Again, these despised classes give in their less warlike spirit an assurance of a greater fidelity, and yield a more ready and willing obedience to the demands of discipline. I have included in the list of the more warlike tribes the Mahratta of Western India, because I feel assured there lingers still among this race the traditions of bygone greatness, and that it would be a grave political error to close to such a numerous and dangerous class the entrance to military service, where the inclination and power for evil is reduced to a minimum, while previous history has shown that, when disciplined and well commanded, the Mahratta soldier is fitted to compete in war with the soldier from any part of India. From the above I arrive at the conclusions—

- (1) that every race willing to take service in India should not only be permitted but encouraged to enlist;
- (2) that no class or caste should be allowed to obtain an undue preponderance in the army.

These principles being accepted and borne in mind, the territorial divisions of the army of India do not appear to me to be of first importance. The fact that service at a long distance from his native place is distasteful to the Indian soldier, and that a system of general reliefs extending from the North to the South of India would involve serious expense, leads to the natural arrangement which gives a description of partial localization to the various sections of the army in the country in which they are enlisted. This seems not only unobjectionable but desirable, as tending to render the sepoy more contented, and at the same time to foster the distinctions and differences happily existing between the various classes of the inhabitants of India. In former days, when communications were bad or non-existent, it naturally occurred that these armies utilized in the district in which they were enlisted should receive a distinct organization and assume the form of separate armies. Now that railroads and telegraph lines connect the most distant parts of India, the reason for the maintenance of this form of administration disappears, and there remain the following objections to the change:—

1st.—The necessity for preserving a distinction between the armies.

2nd.—The danger of overcentralization.

3rd.—The impossibility of one man exercising an efficient control over an army spread over so great an extent of country.

The gravity of the first objection cannot be overestimated, and if the abolition of the presidential armies would necessarily have the effect of breaking down the marked line which now separates the native element of each, I think the alteration would be most dangerous to the safety of the Empire, and therefore to be earnestly deprecated. But there appears no reason why the present distinction and difference of race and feeling should not be preserved equally well under such a system as that indicated in the question, as under existing arrangements. The remaining two objections can without difficulty be overcome by according to the general officers commanding corps the fullest powers consistent with a duo subordination to the supreme head of the army. There is however one condition which must be accepted if the amalgamation of all the military forces in India is to be a success; and carried out in the interests, and with a view to the well-being, of all portions of the army alike, and that is that the Commander-in-Chief in India must not be connected with any of the corps, and his staff must be filled by officers from all the various armies. No arrangement under which the Commander-in-Chief of the whole army was required also to exercise the immediate command of one of the army-corps could be expected to work for the good of the whole, or give satisfaction to all. With this proviso the change would, I believe, not only be advantageous to the State, but also beneficial to the armies of the minor presidencies, whose quasi-independent state gives them no real independence, while their nominal separation deprives them of an equal share in the care and consideration of the Supreme Government. To the existing arrangements I ascribe in a great measure the fact of the supposed superiority of the Bengal over the other armies, as for years the latter have been relegated almost to the position of local police, without hopes of distinction or of employment on active service. Had this treatment led to a deterioration in the armies of Madras and Bombay, it could hardly have been held a surprising result; but speaking for the Bombay army, having had a not inconsiderable experience of that of Bengal, whose

high efficiency I most readily acknowledge, I would assert that the Native troops of this presidency are capable and ready now, as ever, to give a quality of service equal to that within the possibilities of any body of soldiers under the Indian Government. Although I believe that a scheme which, while preserving the distinct local character of the various sections, would, for administrative purposes, weld the whole of the military forces in India, including those under the direct control of the Supreme Government, into one grand army, is possible and desirable, I do not anticipate that any financial saving would result from its adoption, but I would advocate the change in the interests of all, but more especially of those of the minor armies which, brought under the Commander-in-Chief in India, might look forward to sharing equally the opportunities of active service against the enemy as they occur.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

Colonel H. K. Burne, C.B., Secretary  
to the Government of India,  
Military Department.

I should think that four or more army-corps, localized as proposed, would be better than the present system of three presidential armies.

I attach great importance to the entire separation of the three presidential armies as at present.

The advantages of such distinction, especially in the case of the Madras army, were patent in the mutiny, and it has always been a cause of regret to me that it has been necessary, unavoidably so no doubt, to bring so many of the troops of that presidency into Bengal provinces.

It is to them foreign service. It entails great increase of expense in the shape of extra batta, and special family allowances, or the alternative heavy cost of moving and housing the numerous families and establishments that are generally attached to a Madras regiment.

It brings them into contact with different races and nationalities, and tends to break down the barriers hitherto so advantageously maintained.

It cannot be conducive to the public interests that Madras troops serving at Calcutta, Alipore, or elsewhere should be in receipt of extra pay (batta), and special allowances given to their families, while Bengal troops serving alongside or at adjacent stations are on ordinary cantonment allowances.

I think that by some redistribution of stations between the Madras and Bombay armies it might be possible to keep the troops of the Madras army more strictly within their own presidency and south of the Nerbudda, and so save the heavy cost entailed by bringing them into our provinces north of that line of demarcation.

So far from any change being carried out with the advantages suggested in the question, I believe it would have a contrary effect, and would open the way to interchange of thought and feeling which would be very prejudicial to the interests of the Empire.

Any change in the direction indicated would necessarily lead to an extinction of the status of the Madras and Bombay armies, and to a gradual fusion which is much to be deprecated.

It might be possible to divide the large army of Bengal into two separate corps, so as to maintain a barrier as far as possible between Sikhs and Hindustanis, and such a measure would lessen the present difficulties of relieving troops of the Bengal army.

It is impossible to keep Punjabis for lengthened periods in Lower Bengal, or Hindustanis in the Northern Provinces. This necessitates frequent reliefs at a heavy cost.

From the general way in which only I have been able to look into the question of the amalgamation, or rather change of organization, of the separate armies and their staff, I believe there is a very exaggerated impression as to the economy which would result from such a measure.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay,  
Military Department.

I think that there are objections to retaining three presidential armies. First, because they necessitate a large and expensive administrative staff, which might be reduced if the Native army was placed under different organization. Secondly, while the armies are presidential, the local Governments are regarded as being to some extent responsible for their condition. Consequently, reference and applications are made to the local Governments, which, with few exceptions, have eventually to be dealt with by the Government of India. Thirdly, the existence of separate armies gives rise to different systems and practice in matters of detail, which are embarrassing when the troops are employed beyond their own presidential limits. Fourthly, under the existing system the troops of all three presidencies do not enjoy an equal amount of benefit from their connection with the Supreme Government. The army of Bengal being directly administered by the Commander-in-Chief in India, under the immediate orders of the Government of India, is in a more favorable position than the armies of the sister presidencies. This should not be. The armies of the three presidencies should be governed by the Supreme Government and by that Government only. This could be more conveniently done by having (as stated before) but one army, formed into a certain number of army-

corps, and placed under one Commander-in-Chief, who should be unconnected with any of the corps.

Much is said in different quarters about the political necessity for having three separate armies. The political side of the question I understand to be this, that every advantage should be taken of the fact that the population of India is made up of an aggregation of several races and castes, having their several different social and religious peculiarities, and tribal animosities. As these elements of antagonism strengthen our hold on the country, we should abstain from doing anything to alter these conditions, and to create a national feeling amongst the different races, so as to induce them to coalesce. In altering the existing military system, I see no necessity for neglecting the conditions above described.

Having ascertained what is the number of Native troops actually needed for *all* India, that number should represent the strength of the future Native army. It should then be divided into a certain number of army-corps with a proportion of British troops attached to each. And each army-corps should have a certain amount of territory to hold. The Native troops belonging to the several army-corps would ordinarily serve within the limits of their provinces, but would be liable to serve beyond those limits in case of war and when ordered to take their tour of duty on the frontiers.

The army-corps having been told off, the whole should be placed under a Commander-in-Chief, who, assisted by a staff taken from the service generally, and not from any particular corps or province, should, under the orders of the Government of India, carry out the administration of the army as a whole: constantly touring from one province to another, and seeing for himself the actual condition of the troops. Under this arrangement we should attain the use of a more simple and less costly machinery for administrative purposes.

Colonel J. Michael, C.S.I., Secretary to the Government of Madras, Military Department.

In my opinion the maintenance of three distinct presidential armies is advisable on military and political considerations. The control of the whole army in India scattered over so vast an area is probably too much for one Commander-in-Chief, even though he may have served in all three presidencies and have thus become partially acquainted with all the varied rights, privileges, customs, and traditions of the three armies. If, however, it be determined to have three or four army-corps under one Commander-in-Chief, it will certainly be necessary to give the general officers commanding such corps more extended powers than divisional officers possess. Politically, I think that the present distinctiveness of the three armies, and the entire absence of social bond between them, would be one of our greatest elements of safety in the event of internal revolt or attempt at intrigue by a hostile foreign power.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I see no reason for the maintenance of three presidential armies, but I do not think less than five army-corps will be found to meet the requirements of India.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

I consider the maintenance of three distinct presidential armies to be a matter of great, if not of vital, importance.

Taking into consideration the very many points of difference as regards constitution and composition between the existing three armies with all their heterogeneous elements of class and caste, and concomitant prejudices, it would, I think, be very undesirable, if not hazardous, to make any change in this respect. Contemplating the immense extent of country in which the troops of the three armies are cantoned, and in many instances the great intervening distances between military stations, it would be a matter of difficulty and obvious inconvenience, in spite of the improved means of communication existing, to exercise efficient control over all from the head-quarters of one sole and undivided "army of India" located at Simla.

I cannot think that the advantages now derived from the maintenance of three separate armies could be obtained in even an *equal* degree by the substitution for these of three or more army-corps, even if these army-corps were so localized as to secure the representation of all the classes of which the present three armies are composed. The salutary *local control* over each separate army, under a system which, with its attendant special knowledge and valuable and varied experience possessed by the directing authorities, has for so long a period proved satisfactory, would still be wanting.

In fact, an innovation of the kind suggested might be liable to much misconstruction, and to have a disturbing, not to say injurious, effect on the minds of many portions of the Native soldiery, prone as sepoys always are to cling persistently to old local traditions, and always averse to radical changes affecting in any way their local and class prejudices.

Better, possibly, the total abolition of the Madras or coast army than the entire extinction of its separate and individual existence.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

Every consideration of efficiency and economy points to the abolition of the obsolete division of the Indian armies by presidencies. It is an anachronism, which would be fitly replaced by more modern machinery.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

As far as I can see, there are great objections to the maintenance of three presidential armies, with an extensive staff and establishments, and with different regulations, causing considerable trouble when troops belonging to the different presidencies happen to be brought together on service.

The substitution of about five army-corps, localized as might be most convenient, with one set of regulations applicable to all, would be a very great improvement.

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

It matters little whether they are called presidency armies or army-corps, so long as each army, under command of a lieutenant-general, is more or less localized, and kept in such a state of readiness for active service, that the more northerly army or armies (if the Punjab and Sind frontiers are to draw from separate bases) are always fit in every way for an immediate advance, and that those in rear are ready to be moved up with little delay to take their places, either by regiments, brigades, or divisions, &c., and so on.

11. If presidential armies are retained, should the troops of these armies serve, as a rule, in their own presidencies, except when called out for war; or should they take a share of frontier and other general duty?

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding  
Southern Afghanistan Field Force.

In any case I think the armies should, as a rule, serve only in their own presidencies in time of peace. But all should be required to serve in districts which do not furnish recruits for the army. That is to say, all the presidencies should take a tour of service in Burma, Aden, and the Andamans. This would habituate all to service across seas—a very desirable object.

Lieutenant-General C. T. Cham-  
berlain, C.B.I., late Commanding  
Oudh Division.

If retained as presidential armies, they should, as a rule, serve in their own presidencies.

Natives generally are more willing to accept service near their homes on a small salary than at a distance therefrom on superior pay.

Bengalis, *i.e.*, from the country north of Bengal, take service in the Deccan, in the Bombay presidency, and in Sind freely, as also in the Native States; but Madras and Bombay presidency men do not come to the North-West, and I believe that the climate has a great deal to say to their dislike of doing so.

The physique of the different races (especially of the tropical portion of India) is suitable to special localities; and their language and their religions adapt them to home service.

The cold of the North-West is hateful to the men of the South; and rice-eating communities suffer as much from eating atta as the latter consumers do from a diet of rice.

To circumscribed minds 200 or 300 miles is an immense distance; and I have no doubt but that the men of the coast army regard Jubbulpore and Saugor as their penal settlements. If sent to the Punjab, and especially if sent to the frontier stations, I am sure consternation would arise in their minds; for it would be needful to separate the men from their families for a long period. Moreover, the distances to which sick and furlough men are subject, even now, are already great and more costly than can well be afforded. If extended almost indefinitely, leave would be prohibitive! And the State would be subjected to considerably increased charges for those entitled to free passage under any regulations in force.

The general good-feeling which obtains throughout all regiments for *service* anywhere and everywhere is a guarantee for the State employment of them where necessity arises; but I think it advisable for many reasons, policy being one and an important one, not to throw men of different ideas and localities too much together.

I believe, moreover, that it would be very expensive to employ Madras regiments in Upper India, as the compensation calculated upon the price of rice is something considerable even in Central India, and would increase more in a country where that article is not the staple food of the mass, as it is in Madras.

I believe these views are equally applicable to the men of the Bombay army.

Lieutenant-General W. T. Hughes,  
C.B., Commanding Sirhind Division.

I do not think that presidential armies should be retained. In times of peace, and so far as the exigencies of the service will permit, our class

regiments should be ordinarily located in the provinces from which they are recruited. But all should take their turn at frontier and general duty. Every Native soldier should be enlisted for service in any part of the world; and in war time Native regiments should be freely used abroad.

Lieutenant-General J. Forbes,  
Commanding Malwa Division.

I would recruit for general service, but would localize with reference to the food the different classes subsist on. I would not, except in war, require a rice-eating people to serve in a country where none is produced. Compensation for rice where none is grown must entail a heavy charge on the State.

Major-General J. Ross, C.D.,  
Commanding Presidency District.

All should be treated as one army.

Major-General A. H. Macintyre,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

I consider that the troops of the three presidential armies should serve, as a rule, in their own presidencies. Southern troops are not adapted for serving in cold climates, and *vice versa*.

Major-General R.O. Bright, C.B.,  
Commanding Meerut Division.

I have no experience of the Bombay army, except that they have their own frontier to defend. I know Madras troops, and it would doubtless be more beneficial to them to be brigaded with other troops; but the conditions of their engagements to serve would render this a very expensive arrangement. The compensation they receive for dearness of rice is very large, and the enormous families they are allowed to carry about with them makes their movements very expensive.

Major-General J. W. Schneider,  
C.B., Commanding Northern Divi-  
sion, Ahmedabad.

This question is answered by the preceding one. Sepoys of the Bombay army should, of course, take a share in duty on territory recognized as the frontier of this presidency. In time of war, the Native soldier is required to go wherever he is ordered; and Bombay troops have always responded promptly to the call for foreign service.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

The presidential armies should, as a rule, serve in their own presi-  
dencies, except when called out for war.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa Field  
Brigade.

The presidential armies should serve, as a rule, in their own presiden-  
cies, except when called out for war, and should be kept as distinct as  
possible.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay Dis-  
trict.

I think they should serve, as a rule, in their own presidencies,  
taking a share of frontier duties, which is the best school for both  
officers and men. When called out for war or an emergency, they  
should be sent anywhere. Bombay troops are prepared to do so now.

Brigadier-General F. G. Kempster,  
Commanding Ceded Districts.

As a rule, I imagine it is more economical to keep troops to their  
own presidency. It would be expensive to send Madras regiments (rice-  
eating) to serve in Punjab, and to send Bengal regiments (dour-eating)  
to serve in Trichinopoly.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

As a rule, in their own presidencies, except when required for war  
or other special duty.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

Whether the presidential armies are retained or not, the troops of  
each army or corps, as it may hereafter be designated, should, as a rule,  
serve in their own division of the country, and should not, I think, be  
employed on *general duty* in the other parts of India. The unpopularity  
of removing the men long distances from their homes, the advantage of  
maintaining the existing ignorance of other parts of India which is now  
found in the various sections of the army, and the cost of the reliefs,  
seem sufficient reasons to urge in support of this view. Equally,  
however, whether the military forces are organized in separate armies  
or in corps, it is of great importance with regard to their efficiency, the  
cultivation of *esprit*, and their instruction in the art of war, that each  
territorial division should always furnish its quota for service on the  
frontier. These troops, when so employed, would be under the control  
of the general officer commanding the northern corps or the frontier  
division, and would be periodically relieved by regiments from their own  
army or corps. It may be urged that serious expense would be incurred  
if regiments were sent from Madras to the north-western frontier; and  
this no doubt is true. But the cost of these moves would represent a  
value in the efficiency of that army which cannot be over-estimated.  
The troops of all armies or corps should, of course, be available for active  
service in any part of India or of the world.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

If retained, they should serve, as a rule, in their own presidencies. I  
doubt if the Madras and a large portion of the Bombay troops could  
stand the climate of the Punjab and north-west frontier; nor could the  
Goorkhas, Sikhs, and Pathans stand that of Madras and some parts of  
Bombay. In time of war I would employ them all wherever required.



Colonel H. K. Burne, C.B., Secretary to Government of India, Military Department.

They should, as a rule, serve strictly within the limits of their own presidencies, unless called out for war, and should not take any share of general duty.

Under existing arrangements, Burma is to Madras troops what the frontier duties of the north-western and south-eastern frontier and Sind and Southern Afghanistan are to Bengal and Bombay troops.

Colonel J. Macdonald, C.B., Secretary to Government of Bombay, Military Department.

Under any arrangement, whether as belonging to presidential armies or to the army of India divided into army-corps, the troops should serve in garrisons within the limits of their respective commands or districts, unless necessitated by war to serve elsewhere. Frontier duty should be shared by all.

Colonel J. Michael, C.B., Secretary to Government of Madras, Military Department.

I believe it to be most desirable that the service of each army be, as much as possible, restricted to the limits of its own presidency. When troops of the different armies come together in time of war, it is no doubt beneficial, emulation is excited, and the novelty of the thing is enjoyed, but, speaking on behalf of the Madras army, I am sure that it is distasteful to the sepoy to be called upon to serve in garrison far from home associations and as a foreigner. I venture to say that the distaste would be equally felt by a Sikh or a Goorkha regiment called on to serve a three-years' tour in one of our southern or western coast stations. I doubt, moreover, the political advisability of breaking down any of the social barriers which exist between the presidential armies. If a third of the Madras and Bombay armies had been serving in the north, and a third of the Bengal army in the south, prior to 1857, might not reciprocal ties have been found to exist between them; and who shall say that Southern India would not have been drawn into the net? Some may say the mutiny would not then have occurred, or that such a thing is no longer possible: but who can tell? In 1856 many officers of judgment and experience, who were doomed to fall by the hands of their own men in 1857, would have ridiculed the idea of a general mutiny.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I would, as far as circumstances permit of it, keep the troops of the different presidencies to their own presidencies, excepting of course when called out for war; and I would not make it a fixed rule that they should take a share of frontier and other general duty.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

I am of opinion that presidential armies should, as a general rule, serve only in their own presidencies, except for very special reasons, such as to take the place of troops of other presidencies ordered to a frontier, or when called out for war.

Lieutenant-Colonel H. A. Little, Officiating Deputy Assistant Quarter-Master-General.

They should take their share of frontier and general duty, as thus they would have an opportunity of comparing themselves with other troops and finding out their deficiencies. Families should not be allowed with Native regiments.

Major A. A. A. Kinloch, Deputy Assistant Quarter-Master-General.

Under existing circumstances, I do not think it advisable that troops should, as a rule, serve out of their own presidencies. It causes considerable confusion, and prevents general officers from having the undivided authority which they ought to possess, questions having constantly to be referred to the presidency to which a regiment belongs.

Captain M. J. King-Harman, Deputy Assistant Quarter-Master-General.

What is needed is to draw up a simple, but definite, scheme showing what regiments (if local) and stations compose the different brigades of the different divisions of each army-corps, and by whom to be commanded, at the same time providing for a regular relief, subject of course to alteration in cases of special emergency. So that on the order being given to advance and mobilize, say, the northern or first army-corps at certain points, it would be known at once what would be the destination of the troops further south, and so on.

All regiments and batteries composing each army-corps should be kept within the circle of that command, and not moved out of it, unless for some very special reasons; and for this reason of course all regiments composed chiefly of Sikhs, Dogras, Punjabis, &c., would be kept almost entirely either in the Punjab or in the upper portion of the North-Western Provinces; Goorkhas and local regiments, Central India Horse, &c., being located as at present, but being told off to brigades, the same as the others. Owing to the extension of the railways, this is now feasible, without causing any delay. So with Bombay and Madras. All this is a matter of detail, easily worked out, if arranged methodically; the chief question being whether the northern frontier is to be under one army-corps occupying a long line of frontier, or whether it is to be under two distinct corps, one drawing from the Punjab downwards, and the other drawing from Sind and Bombay downwards. The latter would of course be the simplest and most easily worked.

Moreover, the different elements of which the present presidential armies are composed should be kept with their own armies as much as

possible; and the same rule should apply to the army-corps, which should each enlist as much as possible within its own province or command; and the ruling of Government prohibiting the enlistment of Goorkhas into any but certain named regiments should be most strictly enforced.

In a similar way schemes should be drawn up, laying down exactly what stations should furnish troops in case of a war with Burma or China, or a force being required to land on the Persian coast, &c.; and what troops would support or relieve them.

The whole army in India to be under supreme command of one general, "the Commander-in-Chief in India," who would also be the Military Member of Council, with one Quarter-Master-General and one Adjutant-General: the senior in each of these departments to hold the rank and receive the pay of deputies.

All troops in India, Burma, &c., to be under the *sole* control of the "Commander-in-Chief."

## 12. Is there any reason why troops of all the three armies should not serve in Burma?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

I see no reason against their doing so. On the contrary, I think they should be required to serve there in turn. Pathans and Sikhs would not like the climate; but men of these nationalities have served there before, and a tour of duty in that province would not come round to a soldier more than once in his period of service.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

My reply to question No. 11 has somewhat answered this; but I may add that as Calcutta, Barrackpore, and the south-eastern frontier stations are much disliked by up-country Natives on account of the climate and change of diet, they would detest Burma, which is far more damp, is only reached by the sea, is at the antipodes from their homes, and has no redeeming features.

Fever, spleen, and other illnesses would certainly arise from the changes to which their constitutions would be subject; and as the Madras soldiers are rice-eating men, inured to damp heat, they are every way more fitted for garrisoning the stations in that province than Bengal troops.

I cannot say about the Bombay army; but it would be expensive to employ them.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

I know of none.

Lieutenant-General J. Forbes, Commanding Alhow Division.

It would be better that regiments recruited on or near the coast or in the south should serve in Burma.

Major-General J. Ross, C.B., Commanding Presidency District.

I can see no reason.

Major-General A. H. Macintyre, C.B., Commanding Hyderabad Subsidiary Force.

No reason. I consider the troops of all presidencies should serve in Burma.

Major-General R. O. Bright, C.B., Commanding Mæcrut Division.

I know no reason against it; but the Madras troops being in a great measure quartered on the seaboard, and Burma being a rice-producing country, it has been found convenient to find the troops from that army.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

I can see no reason why troops of the three armies should not serve in Burma. The Bombay sepoy goes cheerfully to Aden: he would go equally gladly to Burma, with the usual advantages, *viz.*, free rations, half-batta, and the grant of warm underclothing or compensation, if such should be considered necessary, in lieu thereof. From an experience of five years' command in Aden, I would advise that only a very limited number of families, if any, should be allowed to accompany regiments proceeding to Burma. The service should never extend over two years.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

There is no reason why Bombay troops should not serve in Burma, except the expense of transporting them thither.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

There is no reason, as far as I am aware, why the troops of all the three armies should not serve in Burma, provided they are kept distinct.

Brigadier-General C. T. Aitchison, C.B., Commanding, Bombay District.

None whatever. All troops should be compelled to serve wherever their services may be urgently required.

Brigadier-General F. G. Kempster, Commanding Coled Districts.

I know of no reason why they should not, except Bombay is rather distant from Burma. The Bengal troops served in Burma before the mutiny, and I do not know why they should not take a tour again.

Brigadier-General J. L. Murray,  
Mooltan Brigade.

Yes; climate and food are especially adapted to the Madras sepoys, and altogether unsuited to North-West and Punjab men. I cannot speak so confidently regarding the Bombay army.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

Beyond the reasons given in the reply to the previous question against the employment in peace time of troops beyond the limits of their own presidencies, I can see no objection to troops of all armies serving in Burma. As, however, there would be no special advantage in efficiency or military education to be obtained from service in Burma in peace time, there appears no more reason for troops from the Punjab, Central India, or Bombay to go to Burma than there would be for troops from Bengal to be sent to Aden.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas, and  
lately Commanding a Brigade.

None, except the climate, which I am afraid that the three nationalities abovementioned would not stand for long, though they would do so no doubt for perhaps a year or so.

Colonel H. K. Burne, C.B.,  
Secretary to Government of India,  
Military Department.

For reasons already given, I would deprecate any mixture of the garrison serving in Burma.

If it is intended by the question whether Burma might not be garrisoned by troops of *either* presidency, I should say there is not; and it would be an advantage, financially, if Bengal troops could be sent, as it would not be necessary to continue the system under which it is considered foreign service to Madras troops.

But neither the Bengal nor Bombay armies could, at their present strength, provide for the occupation of British Burma, while such distant service would be in a measure distasteful and call for frequent reliefs.

Colonel J. Macdonald, C.B.,  
Secretary to Government of Bom-  
bay, Military Department.

None, except on the score of expense. Unless for field service, the sending of troops to Burma from distant parts of India would only cause much expenditure, without ensuring any important professional results.

Colonel J. Michael, C.S.I., Secre-  
tary to Government of Madras,  
Military Department.

I know of no valid reason why troops of the three armies should not serve in Burma; but I would say, let well alone; and leave the garrison of Burma to be taken by the Madras army, who have become accustomed to take their tour of service there as a matter of course, and who, on the whole, do not dislike it.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

I think if the troops of the three armies were called upon in peace time to serve in Burma, it might affect prejudicially enlistment in some parts of India.

Colonel D. Standen, Assistant  
Adjutant-General, Burma Division.

I see no reason whatever why the troops of all three armies should not serve in Burma, nor why in particular the Bengal army should not furnish the troops for the garrison of the province, all Bengal regiments being liable to be sent on foreign service beyond sea, or to any territories under the Indian Government. The fact of the administration of British Burma being carried on solely in connection with the Government of India is in itself an especial argument in favor of the troops in the province being taken from the Bengal rather than from the Madras army.

It was formerly a strong argument in favor of the exclusive employment of Madras troops in Burma that men who live on wheaten cakes were not so readily and economically supplied with rations as men who live on rice; and in 1861 it was shown, when this point was mooted, that the cost of feeding Bengal troops was more than double that of Madras troops. In that year the cost of rationing one Bengal sepoy for a period of thirty days was Rs. 7-14-9, whereas for a Madras sepoy it was only Rs. 3-14 for the same period.

According, however, to the rates now prevailing, the cost for a Bengal sepoy would be Rs. 6-10-6, for a Madras sepoy it is Rs. 5-8-4, for a month of thirty days.

The difference of cost, therefore, in favor of the Madras sepoy has been greatly lessened; and provided there is no interruption to the wheat trade with Upper Burma, stated to be increasing each year, upwards of 50,000 maunds of wheat having been imported to Rangoon by the Irrawaddy route from Upper Burma in 1877-78, this difference of cost will in all probability be still further reduced.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

I can conceive no reason why they should not serve in Burma, as they have served in China, in Malta, and in Cyprus.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

I know of none; but imagine that it would be undesirable to keep men, accustomed to a dry climate like the Punjab, too long in a damp climate.

13. (a) Does the organization of the Commissariat Department meet the requirements of war?

(b) And if not, in what way can it be improved without adding to its cost?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

I have nothing to add to the answer given to question 8.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

(a) I know nothing about its organization; but I think that the fact of the Khyber and Kuram columns having always been well supplied, and that large quantities of stores (some 30,000 maunds of grain food) were given to the Amir Yakub Khan at Gandamak when the army retraced its steps, establishes a claim in favor of the commissariat department, whose chief difficulties were the want of transport.

They nevertheless organized a train of carts (some 1,200) to Jellalabad.

The immense losses in camels doubtlessly crippled operations considerably; but in this, as in former wars, the troops of the Indian armies have never had to complain of want as others have, and I believe never will.

(b) I believe improvements to be impracticable without additional cost; but the officers of the department, and the general officers who have commanded columns, will speak with far more weight than I can.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

The commissariat (supply) department should be distinct from that of the transport. Thus the efficiency of both departments would be increased; and both should be attached to the division, and be under the orders of the general officer in command.

Lieutenant-General J. Forbes, Commanding Mhow Division.

By a lavish expenditure, the commissariat department, when a reasonable time is given to prepare, meets the requirements of war; and considering that most of our Indian wars are carried on in countries yielding but little towards the requirements of a British army, it has often struck me as surprising how well this duty is performed. It would be better, I think, if it was fully understood that neither beer nor spirits were to be allowed the troops on service, except under medical treatment.

Major-General J. Ross, C.B., Commanding Presidency District.

No; but I cannot see the way to improvement without increase of officers, and consequent additional cost.

Major-General A. H. Macintire, C.B., Commanding Hyderabad Subsidiary Force.

The organization of the commissariat department has hitherto been found to meet the requirements of war. The principal difficulty arises from the paucity of officers allowed in proportion to the duties that have to be performed. This might partially be remedied without extra cost by appointing a certain number of commissioned and non-commissioned officers, as available, to go through an elementary course of practical instruction in the more obvious duties of the department under the executive officers at the larger stations.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

As far as regards the feeding of troops, it answers admirably. Any improvement required is as regards transport. It carries on its work in war time on a minimum of establishment.

Major-General H. R. Browne, Commanding Saugor District.

I believe the general organization of the department is good, but inadequate in details for war. The recent campaign has shown that it required to be largely supplemented with officers. The abolition of small stations and concentration of troops at larger ones would probably effect a saving that might cover the cost of adding to the department. A good deal of clerical labor, now expended in endless committee reports and minor matters that might well be decided by the executive officers of the department, could, I think, be saved.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

In my experience, I have never found the commissariat unable to meet the requirements of war.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

The organization of the commissariat department has hitherto admirably met the requirements of war; and I see no way in which it can be improved without increasing the cost.

Brigadier-General H. H. A. Wood, C.B., Commanding Deccan Field Brigade.

The commissariat establishments are sufficient only for carrying on the work required of the department in times of peace. Extra establishments have always to be entertained in time of war, whether the war be local or foreign. A reduction in expenditure could be attained by employing Natives of education and intelligence as store-keepers in place of European warrant and non-commissioned officers. It is believed that for from Rs. 100 to 150 per mensem, in proportion to the responsibility

imposed upon them, trustworthy men (willing to give good security for their conduct) and thoroughly efficient could be obtained. I do not think the present organization could in any other way be improved without additional expenditure.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

As far as my experience goes, the Bombay commissariat is fully equal to meet the requirements of war.

Brigadier-General F. G. Kempster, Commanding Ceded Districts.

I am not prepared to answer these two questions (13 and 14).

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

(a) I believe the organization of the Indian commissariat, as a department of supply, is good and suitable for the requirements of war as well as of peace; but of late years the number of the officers, and the strength of the establishments have been reduced so much, that when any extra demands whatever are made on the department, it becomes necessary to supplement the trained staff by a number of officers and non-commissioned officers ignorant of the duties required of them. As an instance of this, it may be mentioned that during the late expedition into Afghanistan the commissariat duties of nearly every station in this presidency were performed by regimental or staff officers, who had to take the places of officers withdrawn for employment with the expeditionary force. The despatch of the expedition to Malta in 1878 afforded also a proof of the short-handed state of the Commissariat Department, as a considerable number of regimental officers had then to be employed to assist the departmental officers; and this they did with zeal and ability, but without that special knowledge and training so essential for the performance of really satisfactory work in this particular line.

(b) This question propounds a problem which I am unable to solve.

Colonel J. A. Tytler, C.B., V.C., Commanding 4th Goorkhas, and lately Commanding a Brigade.

I do not feel myself competent to reply satisfactorily to this question.

Colonel J. Macdonald, C.B., Secretary to Government of Bombay, Military Department.

(a) The organization is good, but it is barely strong enough; consequently, when war breaks out, untrained officers and subordinates have to be employed. It would be advantageous if the tenure of appointments in the commissariat department was restricted, as in the ordnance department, to five years, unless an officer was promoted during that period to a superior grade, when he would be entitled to a fresh five years. Under this system a large proportion of the officers of the army would have a chance of becoming acquainted with the duties of the department, and would be prepared to take up those duties with the efficiency when war necessitated an increase in the strength of the commissariat department.

(b) This I regard as quite impracticable.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

(a) No; certainly not. I think its reorganization is most necessary, as at present it may be said to depend entirely upon contracts, which, though the system may answer for internal warfare, will inevitably fail in an enemy's country, if this and purchases hastily effected at the moment required are the only sources of supply.

(b) I think it requires more of the European element in it, but it should be the best, and they should be properly supervised by a sufficient staff of officers. I have but little doubt that the expense of the introduction of a larger European element in the department will, if properly supervised, be met by the saving caused by its adoption.

It is I think, I may say, notorious that most, if not all, the articles other than food supplied by the department can be procured better and cheaper locally by officers of corps.

I speak from personal experience of five years' command of a battery in Bombay and four years in Bengal.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

It would seem to have been incontestably proved that the existing organization of the Indian commissariat is not equal to meet the requirements of war; but it appears to be a matter of complete impossibility to in any degree improve its organization and efficiency without adding very materially to its cost.

Lieutenant-Colonel H. A. Little, Officiating Deputy Assistant Quarter-Master-General.

Speaking generally in every campaign the commissariat department has well performed its functions of keeping the army in the field complete in supplies. The department is during a time of war undermanned and overworked; but it would be difficult to construct any department which would practically be an improvement on the present one. Alterations might be made in the department; but they are such as would suggest themselves to any energetic officer at the head of the department.

Major A. A. A. Kinloch, Deputy Assistant Quarter-Master-General.

I think not. The whole system seems to be too cumbrous. Officers appear to be too few, and therefore unable to exercise sufficient personal supervision. I can suggest no way of improving it without expense, unless the system of accounts can be much simplified.

#### 14. How can the expansion of the commissariat department (supply and transport) in time of war be provided for?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

A selected officer who understands transport work and organization should be placed at the head of that department, under the direct orders of the general commanding. This being granted, the troops can at all times supply both in officers and men such establishments as may be required to meet the wants of the commissariat in the field. I do not mean that such officers and men would be capable of working regular offices, with all their complicated accounts; but they would be perfectly efficient as collectors and distributors of supplies, and could keep such accounts as would enable the officers of the department to regulate and control expenditure efficiently. I can from experience say that the system here suggested is quite practicable and easily worked.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding South Division.

This question embraces most of the difficulties of campaigning.

Supply would be aided by the civil authorities working in conjunction with the officers of the department. Under this head I include carriage of all kinds, as well as grain and slaughter-animals, and delivery at certain points on the main lines of railway.

So long as that power can be used, there is a fair degree of certainty of arrangements working in; but when once field transport takes its place, there must be confusion, unless regularly-trained establishments are available.

Hence it is imperative to turn very early attention to the formation of "transport corps" in *nucleus* form, and to consider the outlay thereon as money admirably spent.

The requirements of the service, and also of private individuals residing at Rawal Pindi, Attock, Kohat, Peshawar, Murree, and so on, might economically be met by using transport corps in conveying goods and stores from Jhelum to Ludi Kotal, and Jhelum to Kuram.

Other bodies might work in various localities as feeders to railways.

Of course, railway expansion up to the very limit of our possessions is the one source of transport that will pay us best; and I assume that Quetta, Thull (or even Kuram), and Peshawar will sooner or later be termini, reducing the wants of field transport very considerably.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

The organization I advocate, *viz.*, that of attaching the staff and executive officers and subordinates of the two departments to divisions, brigades, and regiments, would, I think, ensure the means of expansion in war time. Officers, non-commissioned officers, and men would qualify themselves to undertake duties which would be very popular.

Lieutenant-General J. Forbes, Commanding Mhow Division.

By greater expenditure in time of peace—a regimental system of transport, mule carriage.

Major-General A. H. Macintire, C.B., Commanding Hyderabad Subsidiary Force.

By comprehensive and accurate estimates of local resources, and by the employment of agents and contractors in time of peace, who can be depended upon to command and to place those resources at the disposal of the State as required for purposes of active service.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

By leaving the supply entirely to them, and relieving them to a certain degree of the transport.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

This is a very difficult problem. As the army is now organized, it is impossible to furnish the officers required for duty with the commissariat department, transport, &c.; but if the regimental system is reverted to, and Native infantry regiments organized as proposed in paragraph 3, there would be no difficulty in expanding the commissariat department to any extent required.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

The subordinate establishment might be augmented in war time by employing some of the old and experienced hands of the permanent peace establishment for the war establishment, and entertaining new hands in their place.

There are generally a number of candidates, and men who have been temporarily employed before, ready and willing to take temporary employment.

As regards transport animals and attendants, the former must be purchased and entertained wherever obtainable as soon as a force is ordered for service, mucedums and inspectors being selected from the permanent establishment of inspectors, weighing-men, and cattle attendants.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

I am not prepared to answer this off-hand. There are so few officers to spare now-a-days, that additional European assistants would be difficult to procure without impairing the efficiency of British regiments, which are reduced as far as expedient in officers.

The Native regiments could not spare a man. Non-commissioned officers, both British and Native, might be readily procured for the subordinate duties, more especially in the transport branch.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

The experience of the late expedition into Afghanistan proves, among other things, that there is now in India but a very small margin of officers available for employment in these branches of the commissariat department, and that, however zealous and willing untrained officers may be, the service they can render must for a time at least be defective, from want of the knowledge and education which is demanded by the special and unaccustomed nature of the work required of them.

It would seem, therefore, that not only on account of the paucity of officers, but also because of the objection to the employment on these duties of untrained officers, it is very undesirable to defer until the officers and the organization are required the formation of a transport department. Except by the addition of an extra number of officers to the Indian army, it is difficult to see how the commissariat department could be expanded in time of war, as in every portion of the military body the officers have been reduced to a minimum; and even the British regiments are, as a rule, so short of officers, that they can give but little assistance, although it was necessarily from them, the Native regiments having no officers at all to spare, that the greater number of officers for transport duty during the late expedition were drawn. It seems to me therefore impossible, except by a permanent addition to the commissariat department of a certain number of officers to form the nucleus of a transport service, to make any satisfactory arrangements for the rapid expansion of the department in time of war. With a small body of trained officers to initiate, supervise, and direct, it is probable that the remainder of the duties could be satisfactorily performed by such officers of regiments or civil departments as could at the time be spared. The trained commissariat officers employed at the various stations might all be utilized for field service, their places being temporarily filled by regimental and staff officers.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

I have replied to the latter question under head "Transport."

Colonel H. K. Burne, C.B., Secretary  
to Government of India, Military  
Department.

This is a very large subject, requiring careful consideration by specially competent and experienced officers.

Every possible assistance was given, and a large number of extra officers attached to the department during the recent operations; but for the most part they had had no previous training.

Colonel J. Macdonald, C.P., Secretary  
to Government of Bombay,  
Military Department.

By increasing the peace establishment permanently, or by having a reserve of officers in the different regiments who have passed a few years in the department.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

I should have certain brigades complete to service requirements of transport supply, and the remainder on a peace footing; a certain number of officers and non-commissioned officers being attached to learn their duties, to be selected from candidates for employment, and who should receive working pay while so employed. A list should be kept of all such who have been trained, with their qualifications, and who would be available in time of war for expansion of the department, and would join with some knowledge of their work, instead of, as at present, being very often, through this very ignorance, in the hands of rapacious and designing Natives.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

By simplifying the system of departmental accounts, and limiting the tenures of office in the department to five years, subject to re-appointment.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

I can only suggest that transport should be made a separate department capable of expansion, as proposed in my replies to question (3).

Of the working of the commissariat department I have no practical knowledge.

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

By making the following—

- |   |                              |            |
|---|------------------------------|------------|
| 1 | Commissary General,          |            |
| 3 | Deputy Commissaries General, |            |
| 4 | Assistant ditto,             | 1st class, |
| 4 | Ditto ditto,                 | 2nd "      |
| 6 | Depy. Asst. ditto,           | 1st "      |
| 6 | Ditto ditto,                 | 2nd "      |

all five-year appointments; provided always that an officer may be promoted on a vacancy occurring in a higher grade before the expiry of his five years.

Also that in every cantonment where there is a commissariat officer one subaltern be appointed as attached to the department, his chief duty being to look after all transport animals, &c., and generally to qualify for employment in the transport department in time of war. This subaltern to be changed *only* when his regiment moves, unless found to be unfit.

The appointments of commissary general and deputy commissary general to be made by *selection only*, and *not* by mere seniority.

The subaltern officer attached would be required to keep up one horse, for which he would receive an allowance, and be exempt from all purely regimental duties, but would receive no extra pay.

In this manner the number of officers more or less qualified for service with the commissariat and transport in time of war would be considerably increased, at no cost to the State; and the department itself would be much benefited by having a steady flow of promotion.

There should be special separate central offices for accounts and *nothing else*, and executive officers relieved of this drag on their efficiency.

15. Cannot the number of followers be reduced both in corps and departments, and for peace and war? Have you any suggestions to make?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

The public followers allowed in cantonments cannot, I think, be reduced. Some few followers whose duties are strictly confined to cantonment work can be dispensed with in the field; but the great mass of them must be retained. Until a substitute can be found for the "doolie," I am not aware that any sensible reduction of public camp-followers is possible.

Lieutenant-General C. T. Chamberlain, C.R.I., late Commanding Oudh Division.

I strongly advocate the abolition of all regimental bazars, which are relics of olden days, quite unsuited to the wants and necessities of the times.

There are sudder bazars in all large stations where everything can be purchased, but whose traders suffer in some degree from the presence of regimental traders; for the soldiers are *not forced to purchase from regimental bunniahs*—in fact, are specially privileged either to do so or not as suits their convenience. As bunniahs are not only unnecessary as camp-followers, but their presence adds to the mouths to be fed in the field, the men should learn to do without them in peace so as not to miss them in war.

Regiments moving by rail in relief invariably leave their bazar people (mustered Government servants excepted) behind them, and take up those left by the corps to be relieved.

In fact, regimental bazars now represent in most stations landed interests. Occupants rarely leave the spot. If they do, they return as soon as their old regiment has reached its new destination. Bazars as formerly known, when crowds of men and families with their household gods followed particular corps everywhere, are things of the past; and are as unnecessary with British as with Native corps.

In the former the coffee-shop men can supply everything, as they have old curiosity-shops.

Natives have few wants; and Native soldiers are always careful of their money.

Whenever regiments march, there are burdashtkhanas and shops of all kinds handy for purchase; and in the field there is the commissariat department for all necessaries of food, and the towns and their shops for luxuries.

I cannot make any suggestions as to the details of reductions of followers in corps or departments, but recommend that certain batteries and regiments, cavalry and infantry, be selected in which to experimentalize the minimum number needful.

I would add, however, that if reductions be carried too far, there is the danger of having to employ fighting-men to do the work.

As regards departments, the general cry for long has been—"Underhanded!"

Lieutenant-General W. T. Hughes, C.B., Commanding Strhind Division.

The number of followers might, probably, be reduced in time of peace; but I have not the figures before me which would enable me to make any suggestions.

Lieutenant-General J. Forbes, Commanding Mhow Division.

I think the number of followers might be much reduced, if medical men are not consulted, and that it would conduce both to the health and efficiency of the British soldier. I would recommend that British cavalry regiments should, as at home, have an establishment of at least five horses per troop fewer than the men; that, with the exception of a syce for each of the staff sergeants, troop sergeant-majors, and bandmasters, the others should be reduced. I had an opportunity of testing the feasibility of what I recommend in the case of the 3rd Hussars. Cholera broke out among their followers, whom I moved out of cantonments; and nothing could have been more satisfactory than the stable management, and the men worked without syces for upwards of six weeks. This was during the hottest time of the year; but the health



of the men did not suffer from the extra work. I would recommend company cooks being done away with.

Major-General J. Ross, C.B.,  
Commanding Presidency District.

Regimental lazars might be abolished.

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

I do not see how any reduction can be made of the peace scale. In time of war syces might be reduced to the scale laid down for the recent Afghan war. Grass-cutters are necessary in time of peace. In time of war in an enemy's country they are nearly useless, although of use on the line of march.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

In the Cabul scale I believe followers were reduced to a minimum. In time of peace the number of sweepers in European infantry and cavalry might be reduced, as I see no reason why they should not keep their own barrack-rooms clean, and the employment would be beneficial to them. In hill stations and depôts cooking and all the work in barracks might be done by them, with the exception of attending to the latrines.

Major-General H. R. Browne,  
Commanding Saugor District.

Yes; I have no doubt at all that considerable reductions could be made. Certainly as regards corps, by requiring soldiers to do a little more for themselves than is now the case. There is no other country in which they are assisted to the same extent. Tent lascars in regiments of British infantry and syces in corps of cavalry might perfectly be reduced. There can be no good reason why soldiers should not attend to their own horses, at any rate for the greater part of the year.

Major-General J. W. Schneider,  
C.B., Commanding Northern Divi-  
sion, Ahmedabad.

It was found in the expeditionary force to Abyssinia that followers could be reduced both in corps and departments. The same has recently been done in Afghanistan. Whether for peace or war, I do not consider the present authorized public followers could be diminished. The private followers, in time of war, could be reduced to the Afghanistan scale given by Colonel Johnson, Officiating Quarter-Master-General in India.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

This question will be answered by the Adjutant-General. I do not consider that the number of followers can be reduced on service.

Brigadier-General H. H. A. Wood,  
C.B., Commanding Deesa  
Field Brigade.

If the strength of moveable columns is reduced, camp-followers might be permanently reduced, but not otherwise. As regards the commissariat department, with respect to regimental followers, they could be reduced in time of war.

Brigadier-General C. T. Aitchison,  
C.B., Commanding Bombay District.

Regimental establishments have been reduced as much as possible. As regards departments, I am not prepared to say.

Brigadier-General F. G. Kem-  
ster, Commanding Ceded Districts.

Doubtless further reductions could be made; but I think officers commanding corps and officers of departments could give hints on this subject.

The present scale for doolie-bearers is much too high.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

Not of those actually attached to regiments in peace, unless at depôts or hill stations, where reductions might be feasible. But the moveable column establishments might be largely, if not altogether, abolished, unless where not readily procurable.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

In considering this subject, it must be borne in mind that the Native followers perform, though not in the proportion of man for man, duties which in their absence would, in war time and in the field, be performed by fighting men, whose employment for such purposes would reduce the available strength for active operations to that extent. Native followers consequently may be held in a measure to represent a proportional increase in the strength of the combatant ranks. For instance, a battery of field artillery which, on a war footing in Europe, would, with only one line of wagons, have a complement of 167 men in India, has, including the second line of wagons, 158, supplemented by 70 syces and bullock drivers. In a similar way a regiment of British infantry, when not accompanied by Native cooks, water-carriers, sweepers, hospital establishment, clerks and officers' servants, has to detail men for the performance of these duties who would otherwise be in the ranks. It may be said that men so employed would be available for duty on those occasions when the regiment was engaged with the enemy; but in practice this is not so, as I am aware from my own experience in the Crimea. The presence therefore of a considerable number of Native followers is not, I consider, the unmixed evil which it is sometimes represented to be. The accompanying tabular statement shows the authorized followers for corps of the various arms, and the alterations which were made in the list for the special requirements of service in Malta and Afghanistan.

## List of authorized followers of British and Native regiments, cavalry and infantry.

18th August 1879.

## BRITISH.

CLASS OF FOLLOWERS.	CAVALRY.			INFANTRY.			REMARKS.	
	Peace time.	Malta Expedition.	Afghan Expedition.	Peace time.	Malta Expedition.	Afghan Expedition.		
<i>Educational.</i>								
Moonshee ...	1			1				
<i>Subordinates, Medical and Hospital.</i>								
Apothecary and assistant	2			2			* Hospital writer.	
Apprentices ...	2			2				
Hospital assistant ...	1			1*				
Nurse ...	1			1				
Assistant nurse ...	1			1				
Dresser ...	1			1				
Shop-coolie ...	1			1				
Purveyor's servants ...	2			2				
Tailor ...	1			1				
Barber ...	1			1				
Head-cook ...	1			1				
Cooks ...	2			2				
Washermen ...	3			3				
Bhisties ...	5			5				
Sweepers ...	5			5				
Ward-coolies ...	10			10				
Doolie-bearers ...	8			8		522		
<i>Native Followers.</i>								
Tindal and lascars ...	7	No cavalry employed.		9	No infantry employed.		8	
Shoeing-smith ...	6							
Jemadar syces ...	2							
Hospital do. ...	2							
Muccadam of syces ...	6							
Do. of grasscutters	6							
Syces ...	193							
Grasscutters ...	146							
Dhobies ...								8
Cooks ...								32
Muleteers ...								2
Camelmen ...								35
Bazar establishment ...								16†
Officers' servants ...						39		
<i>Quartermaster's Establishment.</i>								
Puckalies ...	12			16		32	† Probably included in the "16" above shown	
Sweepers ...	12			16		8		
Chowdry ...	1			1				
Weighmen ...	2			2				
<i>Conservancy.</i>								
Bhisties ...	7			10				
Sweepers ...	7			10				
Bildars ...	2			2				
<b>Total</b> ...	<b>459</b>			<b>414</b>				

## List of authorized followers of British and Native regiments, cavalry and infantry—continued.

## NATIVE.

CLASS OF FOLLOWERS.	CAVALRY.			INFANTRY.			REMARKS.
	Peace time.	Malta Expedition.	Afghan Expedition.	Peace time.	Malta Expedition.	Afghan Expedition.	
<i>Sub-Medical and Hospital.</i>							
Hospital assistants ...	2	3	} 7	4*	3	4*	* Includes 2 medical pupils.
Goorgah ...	1	1		1	1	1	
Bhistics ...	1	2		2	2	2	
Sweepers ...	1	2		2	2	2	
Doolie-bearers ...	4	74	243	4	86	366	
Shop-coolie ...	...	1	...	...	1	...	
Cooks ...	...	2	...	...	2	...	
<i>Native Followers.</i>							
Native accountant ...	1	1	...	...	...	...	
Lascars ...	2	1	...	9	1	9	
Bhistics ...	6	12	6	8	12	8	
Cooks ...	...	12*	12	...	16	16	
Siklighurs ...	...	6*	...	...	...	...	
Moochees ...	...	6*	...	...	1	...	
Mistries ...	...	2*	...	...	1	...	
Tinmen ...	...	2*	...	...	2	...	
Moonshee ...	...	1*	...	...	1	...	
Moulvie ...	...	...	...	...	1	...	
Gruntee or pundit ...	...	1*	...	...	1	...	
Quartermaster and Adjutant's writers ...	...	1*	...	...	2	...	
Officers' servants ...	...	...	40	...	...	37	
Grasscutters ...	...	...	295	...	...	...	
Syces ...	...	...	58	...	...	...	
Dhobies ...	...	...	...	...	...	3	
Camelmen ...	...	...	50	...	...	...	
Artificers ...	...	...	13	...	...	...	
Bazar establishment ...	...	...	12†	...	...	12	
Sweepers ...	...	...	6	...	...	8	
<i>Quartermaster's Establishment.</i>							
Chowdry ...	1	1	} †	1	1	1	
Mutsuddy ...	1	1		...	...	...	
Weighmen ...	3	3		2	2	2	

## List of authorized followers of a battery of field artillery.

CLASS OF FOLLOWERS.	Peace time.	Malta Expedition.	Afghan Expedition.	REMARKS.
<i>Sub-Medical and Hospital.</i>				
Assistant apothecary ...	...	1	1	1
Assistant nurse ...	...	1	...	...
Purveyor's servant ...	...	1	1	1
Barber ...	...	1	1	1
Cook ...	...	1	1	1
Washerman ...	...	1	1	1
Bhistic ...	...	1	1	1
Sweepers ...	...	2	2	2
Ward-coolies ...	...	2	2	2
Doolie-bearers ...	...	4	42	96
Hospital assistant ...	...	...	1	...
Purveyor ...	...	...	1	1

*List of authorized followers of a battery of field artillery—contd.*

CLASS OF FOLLOWERS.	Peace time.	Malta Expedition.	Afghan Expedition.	REMARKS.
<i>Native Artificers and Followers.</i>				
Tindal	1	1	1	
Store lascars	12	12	12	
Tent lascars	2	...	...	
Puckalies	3	8*	8*	* Hand-bhisties.
Puckali for sick horse stable	1	...	...	
Jemadar syces	3	3	2	
Syces	71	71	31	
Grasscutters	37	...	130	
Bullock drivers	38	...	38	
Maistry smith	1	1	1	
Fireman	1	1	1	
Filemen	2	2	2	
Hammermen	2	2	2	
Maistry carpenter	1	1	1	
Carpenters	2	2	2	
Moochee	1	1	1	
<i>Conservancy.</i>				
Bhisties	2	...	...	
Sweepers	5	3	3	
Bildars	1	2	2	

On both the late occasions of the employment of troops out of India, the class of Native followers which swelled the numbers to so vast a figure was the doolie-bearers, who represent the ambulance of a European army, and are probably, great as is their number, less expensive and more efficient than any system of sick carriage yet devised. At the same time, it seems to me that the proportion of doolie-bearers sent with the Cabul expedition was excessive, though no doubt this was an error on the right side. Bearing in mind the difficulty or impossibility of rapidly increasing the effective fighting strength of a British or Native corps in India, I would not be disposed to reduce any of the Native followers, whose places would of necessity have to be taken by soldiers. The number of the doolie-bearers must always vary according to local circumstances, the distance from the base of operations and from railroads, and the possibility or otherwise of using wheeled carriage. A small reduction might possibly be made in the number of cooks, bhisties, and sweepers; but these are all most useful classes of servants, and some margin should be allowed for probable casualties among them. If it were possible to raise batteries of artillery to their full European complement for war service, syces could with advantage be dispensed with; but it will probably always be found more convenient and more economical in India to retain the syces and bullock-drivers, and the smaller complement of European gunners and drivers.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
late Commanding a Brigade.

The number of followers in Native corps is not excessive in peace time, nor could they be well reduced in war. Every Native regiment should have two bhisties per company in active service, one bunniah for two companies instead of one per company; and the same for sweepers would answer in war.

Colonel H. K. Burns, C.B., Secretary  
to Government of India, Military  
Department.

I do not think the number of followers can be materially reduced in peace; and in all recent operations they have been reduced to the lowest possible limit.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay, Military  
Department.

A few might be reduced; but their retention makes available a large number of fighting-men. The most numerous are the doolie-bearers and grass-cutters. If the former are reduced, the carriage for the sick and wounded will be affected detrimentally. Similarly, any reduction in the number of grass-cutters with a force in the field would curtail the supply of forage, and throw on fighting-men extra duties which are as well performed by followers.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

I think the scale of followers allowed during the late campaign is suitable, with slight modifications. I suggest that reports of officers employed in last campaign be considered, and the scale be finally re-adjusted according to their reports.

Beyond the sea it is capable of further reduction ; but an increase in the European element will then be necessary.

I do not think in time of peace the present establishment can be reduced, nor in time of war for internal operations on the plains of India, unless they are expected to be of short duration.

See copy of correspondence on this subject attached (A).

## A

No. 7003, dated 19th July 1879.

From—MAJOR-GENL. P. S. LUMSDEN, C.B., C.S.I., Adjt.-Genl. in India,  
To—The Secretary to the Government of India, Military Department.

I have the honor, by desire of the Commander-in-Chief in India, in continuation of, and with reference to, paragraph 2 of this department letter No. 2088B. of the 1st instant, to remark as follows, in reply to Military Department letter No. 250D. <sup>Establishment</sup> <sub>Regimental</sub>, dated 23rd January 1879, as regards the possibility of reducing permanently the Native establishments attached to batteries of royal artillery serving in this country.

2. The reduced Native establishment for service beyond the frontier was accepted not because it was good or desirable as a permanent arrangement, but because it was necessary on active service, in the same way that it was necessary to substitute small tents for the larger ones and for many necessaries in peace time to be foregone altogether. But it is not to be inferred therefrom that the men and horses have not to a certain extent suffered from the reduction, even while beyond the frontier ; and this has been clearly shown to have been the case in a marked degree during the march back to India.

3. The above scale was fixed for service beyond the border in a cool climate ; and would not, in the Commander-in-Chief's opinion, answer in the plains of India during the hot weather without the men suffering in health and the horses from want of proper care.

4. From pages 1 and 3 of the tables published with Army Circular dated 1st September 1878, it will be seen that a battery of horse artillery serving at home has a strength of all ranks, exclusive of commissioned officers, of 156 men and 106 horses, and a battery of field artillery of 153 men and 84 horses. In both the horse and field artillery 15 non-commissioned officers and artificers per battery are exempt from grooming ; whilst, as in the cavalry, from 25 to 30 per cent. of the remainder are not available, being employed on other duties, or sick in hospital, &c. This leaves rather less than one man per horse in a battery of horse artillery, and about 100 men to 84 horses in a field battery.

5. The strength of batteries serving in India is—

	Men.	Syces.	Horses.
Horse artillery ...	157	118	178
Field artillery ...	157	71	110

The non-commissioned officers exempt from grooming in England, having similar duties to perform, are equally exempt from such work in this country ; but the number of men who are available for stable work is much less than it is in England, there being, as a rule, a much larger percentage of sick, and not less than 10 men per battery absent at convalescent depôts. In support of this, it may be stated that, from a statement compiled in the office of the Deputy Adjutant-General, Royal Artillery, it appears that, exclusive of the non-commissioned officers exempt from grooming, fully 50 per cent. of the Europeans serving with batteries are available for stable work. It also appears that from various causes an average of 12 syces are not available, which reduces the number of men (Europeans and Natives) to about 174 men to 178 horses in the horse, and to about 127 men for 110 horses in the field, artillery ; or not quite one man per horse in the former, and rather more than one in the latter.

6. With reference to the latter portion of the foregoing paragraph, it may be well to point out that, while the field batteries have a larger proportion of men available for stable duties, their work as regards the care of the harness, &c., is much greater, as they drill with the whole of their guns and wagons ; whereas the horse artillery, as a rule, drill with the guns only.

7. The numbers given in paragraph 5 have been very carefully arrived at ; but it is found in practice that one man per horse is very seldom available, the number of men absent from various causes being, as a rule, in excess of what has been allowed for.

8. Under these circumstances, Sir Frederick Haines considers that any reduction in the number of syces at present allowed to batteries of horse and field artillery would seriously impair the efficiency of these batteries, and that the measure, if carried out, would affect the health of the Europeans, and instead of proving an economical arrangement would, in the end, prove just the reverse.

9. In further proof of the undesirability of carrying out the proposed reduction, I am to submit the enclosed correspondence relative to the condition of the batteries recently returned to Peshawar, from which it will be seen that, in the opinion of the medical officer, the health of the men has not only suffered very severely from the exposure to which they were necessarily submitted, owing to the paucity of syces, but that deaths have occurred attributable to this excessive exposure.

10. As in the case of the British cavalry (*vide* paragraph 13 of my letter previously referred to), so long as the present system of providing forage prevails, any reduction in the number of grass-cutters at present allowed for the royal artillery is entirely out of the question; and the other Native establishments barely meet requirements.

11. Sir Frederick Haines desires to bring to the notice of Government, in the event of comparison being made between the proportion of syces for a given number of horses in the cavalry and artillery, that the latter have, in addition to the harness and appointments, the guns, carriages, and a large quantity of stores in charge, which require constant care and attention. These duties leave the men of the royal artillery with but little leisure for amusements, which is evinced by the fact that, however anxious to do so, men of this branch can rarely find time to devote themselves to regimental gardens, or to avail themselves of the privileges afforded by such institutions as workshops.

No. 996, dated Peshawar, 1st July 1879.

From—MAJOR C. WILSON, Commanding Royal Artillery, Peshawar District,

To—The Deputy Adjutant General, Royal Artillery in India.

I have the honor to inform you that I have this day despatched to

your address the telegram as per margin.  
 “D-A C-3, suffering very severely from cholera. Sickness aggravated by exposure, owing to want of syces. None obtainable here.”

D-A, Royal Horse Artillery, have now had some 23 or 24 cases of cholera, mostly fatal, as well as 3 or 4 cases of sunstroke. The labour entailed by the work of 200 horses is, in the opinion of the medical officer, telling on them very severely; and unless they are helped soon, he anticipates very serious results. As it is now, the battery is unable to change camp as often as is desirable, in consequence of the great exertion and consequent exhaustion suffered by the men now reduced to about 100 for duty. The same remarks apply to C-3, Royal Artillery, who have had several cases of sunstroke, mainly to be attributed to the extra exposure entailed owing to the want of syces. None are to be procured here. Every exertion has been made to enlist, but without any result; and large numbers have deserted. I trust that something may be done, without delay, to assist the men, either by procuring syces from down-country, or, as suggested in my No. 954 of 14th June 1879, by casting horses unfit for the service at once. This would relieve the work greatly.

No. 1561S.D., dated Simla, 22nd August 1879.

From—The Secretary to the Government of India, Military Dept.,

To—The Adjutant-General in India.

In reply to your letters noted in the margin, I am desired to acquaint

you, for the information of the Commander-in-Chief, that the Government of India accept His Excellency's proposal to reduce the establishment of syces for regiments of British cavalry in India from its present fixed strength of 254 per regiment, as laid down in G. O. No. 99 of 1873, to 227 (exclusive of syces allowed for hospitals), to be distributed as recommended by Sir Frederick Haines, *viz.* :—

For each full rank non-commissioned officer, farrier, and trumpeter, one syce; for 5 troops with 12 of the above and one troop with 11	...	71	syces.
Six troops with 26 syces for the remaining horses	...	156	„
Total	...	227	„

2. I am accordingly to convey the sanction of Government to the reduction being given effect to as a temporary and tentative measure.

His Excellency's views as to the impracticability of safely reducing the number of syces employed with royal artillery, or the establishment of grass-cutters with either artillery or cavalry, are concurred in by Government.

Lieutenant-Colonel H. A. Little,  
 Officiating Deputy Assistant  
 Quarter-Master-General.

That the followers can be reduced in time of war with advantage has been proved during the late operations in Afghanistan. In the time of peace fewer followers with corps would conduce to the health of the soldier. There is no reason why soldiers should not carry water for their own personal use, nor why they should not sweep out their barrack rooms, as at home, and clean the tables and forms. At the hill stations they might fitly do their own cooking, as at home. Punkha-coolies are, I think, of very little advantage or comfort to the troops: their number has been cut down so much of late years. In fact, as punkhas are now pulled in barracks, they only make the heat more felt than if there were none.

Major A. A. A. Kinloch, Deputy  
 Assistant Quarter-Master-General.

I think it rather difficult to reduce followers very much; though it is highly desirable to do so to the utmost amount possible.

Company cooks might be dispensed with in hill-stations and in cold weather.

The number of syces with cavalry regiments might be reduced.

Punkha-coolies might be dispensed with by the adoption of some simple form of machinery. The objection so often raised, that no machinery gives exactly the same motion to the punkha that a coolie can give, is, I think, a very poor one. Few coolies pull really well; they constantly go to sleep and stop altogether, or pull by fits and starts. Any uninterrupted swing would be better.

Kahars might be much reduced in numbers by the substitution of wheeled or pack-animal ambulances as far as possible. I look upon kahars as about the greatest encumbrance to an army, especially when they are so badly selected as was the case in the last campaign. Many of them were hardly capable of carrying themselves; and one constantly saw doolies and dandies laden with sick kahars, their clothes and cooking-pots.

Baggage might be considerably reduced on service by the substitution of cooking vessels of a convenient pattern for the heavy and cumbrous brass dishes carried by most Native troops. The same may be said of the heavy round iron water vessels carried by some regiments.

Captain M. J. King-Harman,  
 Deputy Assistant Quarter-Master-  
 General.

Most certainly they can.

Punkha-coolies can be reduced in every station in India by the introduction of mechanism for pulling punkhas in barracks and hospitals. Many systems have been tried and failed, because, owing to the small encouragement given by Government, they have been almost without exception designed by amateurs.

Mr. Mortimer, of the Barrack Department, has however invented a good practical system, which is now in force at Dinapore, and, for want of a better, should be introduced generally.

Bhisties may be reduced during *peace time* by the general introduction of pumps to wells for all purposes.

Grass-cutters with batteries of artillery and regiments of cavalry might be all dismissed, as grass is *always* procurable by purchase at *all* times and places throughout India, whether in cantonments or on the line of march; and as the cost of it would be much less than the pay of the grass-cutters, they might be done away with altogether.

I would therefore beg to make the following suggestions:—

(a) Substitution of machinery (Mortimer's invention) *at once* for punkha-coolies in all barracks at Meerut, Umballa, Rawal Pindi, Lucknow, and Fort William; and that in the meantime Government should offer a substantial reward of, say, £2,000 up to £5,000 for the best system.

(b) The gradual introduction of pumps and covered wells.

(c) The abolition of all artillery and British cavalry grass-cutters *as such*, and the utilization of the men and ponies in *transport*, cleaning lines, and as *mounted orderlies* in cantonments *in place of cavalry sowars*, &c.

(d) I would suggest the reintroduction of extra syces, siklighurs, and extra messing, in all batteries of artillery and regiments of British cavalry in a slightly modified form to what existed in former days. My reasons for this is as follows.

Formerly, under this system, the men were allowed to have extra help as well as extra food by paying for it. The men were less hard-worked, much more contented, and not less efficient than they are now, while the service out here and the country derived the greatest benefit by the numbers of volunteers who remained in India after the departure of their regiments for England; whereas now-a-days few, if any, artillery or cavalry men volunteer, except those who have married country-born women; and the reason given by themselves is that they have exactly the same work to do in India as they have in England, with the great disadvantage of a bad climate to do it in.

The number of *private* followers would be increased during peace time; but the health of the soldier, and consequently his efficiency, would be improved, and no public expense would be entailed.

The infantry soldier requires no such extra assistance. In fact, he does not get enough work to do, even as it is.

The 16th Lancers, 3rd Light Dragoons, Bengal Artillery, and (during the latter part of their service after the mutiny) the 9th Lancers also, carried this to perfection.

16. Have you any suggestions to make as regards the system of cloth and white clothing for British troops?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

Troops serving in Madras, Burma, and Lower Bengal do not require cloth clothing at all; but the substitution of serge for cloth can hardly be called a saving, as the soldier always expects compensation when a cheaper article is issued to him in lieu of his regular equipment. Although white clothing is never used on service, it is hardly necessary to interfere with it, as it is supplied at the soldier's cost, and is at once dyed when troops are warned for field service.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

Abolish the clothing department and purchase from contractors, who will have an interest in supplying good material.

Furnish corps with cloth and et-ceteras in bulk, and let the regimental authorities make up their own clothing entirely according to the sealed pattern.

The departments at Pimlico and Calcutta are well abused, and in many instances not without cause. Government would be better served, I believe, if there were *fewer interested parties* than at present.

The white clothing, which is always made up under contract, is always well fitting good material. The men who make that can make the cloth set.

Lieutenant-General W. F. Hughes, C.B., Commanding Sirhind Division.

I think great alterations are needed both as regards material and make. At certain seasons in the plains of India white or colored cotton clothing is essential.

Lieutenant-General J. Forbes, Commanding Mhow Division.

No suggestions.

Major-General J. Ross, C.B., Commanding Presidency District.

Drab or stone color is preferable to white for summer clothing in every way. Now when a regiment receives orders to prepare for field service, there is a most inconvenient, and should be unnecessary, hurry-scurry to get the white turned into any other color.

Major-General A. H. Macintyre, C.B., Commanding Hyderabad Subsidiary Force.

I think cloth clothing unnecessary in this country, and recommend that none be issued. An extra serge coat should be issued instead, and compensation in money to the full extent to enable the soldier to buy white clothing and extra serge if necessary.

During peace I recommend white clothing for warm weather, as at present worn; but for active service I recommend that this be dyed khaki color.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

I consider good serge is a better material than thick cloth for winter. Nothing could be better adapted for the country than the present white clothing. It is clean and cool, and, in the event of active service, is dyed in a few hours without any damage to its future use.

Major-General H. R. Browne, Commanding Saugor District.

I consider that the issue of cloth clothing is not necessary at nearly all stations south of Umballa. The substitution of serge would be an advantage. The white clothing, though admirably adapted for garrison duty and suitable to hot weather, has this defect, that it is totally unsuited to active service: an alteration of color, such as khaki dye, would remedy this defect.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

No; the system in force in this division answers every purpose.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

Will be answered by the Adjutant-General.

Brigadier-General F. W. Jebb, Assistant Adjutant-General, Madras Army.

At stations within the tropics, where white clothing is worn during the day nearly all the year round, and serge clothing during the nights and on wet cool days, I think the English cloth tunic should cease to be issued; but instead of it the necessary serge and white clothing might be provided free of cost to the soldier.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

No suggestion to make.

Brigadier-General C. T. Aitchison, Commanding Bombay District.

As regards clothing in garrison, I think it would be sufficient to issue cloth clothing every fourth year, and serge for the intermediate years.



Brigadier-General F. G. Kempster,  
Commanding Ceded Districts.

Cloth clothing for British infantry quite unnecessary and unsuitable south of lat. 18°. Serge is quite sufficient.

I can see no substitute for white clothing during the very hot months. Khaki once washed looks bad and loses its color.

The mounted branches require *cloth* trousers for riding, as nothing else will stand the wear and tear.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

Cloth tunics and trousers are generally so little worn, that they might well serve four years, and serge be issued instead. If the serge coats were lined, they would last much longer and not become discolored by perspiration.

Khaki clothing is much more serviceable than white, wears longer from not being so frequently washed, and fewer suits could be necessary.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

The variations of the climate in India necessitate both warm and light clothing being kept up; and I am not aware of any objections to be urged against the present system, except that the cost of the white clothing, a large supply of which is necessary, falls heavily in the first instance on the soldier. From time to time, when the cloth clothing was found in sufficiently good order to continue serviceable for a further period, the grant of compensation, in lieu of an issue in kind, to be expended in the purchase of white clothing, would probably be found advantageous; and this course is sometimes adopted.

I would have no white clothing for British troops; khaki clothing should be worn instead.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

The present scale of clothing was laid down after due consideration, and seems very suitable.

Colonel H. K. Burne, C.B., Secretary  
to Government of India, Military  
Department.

A proposal, which seems an excellent one, has recently been made to substitute flannel shirts entirely for cotton shirts in the soldiers' kits, and is now under consideration.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay,  
Military Department.

None.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

The full dress is seldom worn out in this country.

Generally, the soldier is provided with more cloth clothing than he requires; and while I do not advocate a change in the present system of issue, I suggest that commanding officers be empowered to draw compensation in lieu for any men whose clothing does not require to be renewed, to be devoted towards the renewal of their white clothing or in keeping up their service dress.

Colonel D. Standen, Assistant  
Adjutant-General, Burma Division.

None, except that the issue of cloth tunics be discontinued, and that the clothing of British infantry regiments should invariably be issued in material and made up regimentally.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quar-  
ter-Master-General.

Both cloth and white clothing might suitably be excluded from the soldier's kit in India, leaving serge clothing only lined with flannel with additional articles of under-clothing where required by the coldness of the weather. White clothing, I feel convinced, is injurious to health; but what men require most is plenty of warm clothing of the very best quality at night. The blankets now served out are, I think, a poor substitute for the *rezai*, discontinued, I believe, on sanitary grounds.

Major A. A. A. Kinloch, Deputy  
Assistant Quar-Master-General.

I consider the issue of a tunic and cloth trousers on alternate years to be quite unnecessary. I think the tunic a most unserviceable coat in every way, and especially badly adapted to India.

If it *must* be retained as a parade dress, it would be quite sufficient to issue one every third or even fourth year, serge being issued every year.

The cloth trousers are also very inferior. They are stiff and uncomfortable, and very soon look shabby. Their issue should be discontinued altogether, and a superior description of serge issued annually.

In cold weather men might be supplied with a warm guernsey or cardigan to wear underneath the serge coat, which would then meet all requirements.

Light clothing being a necessity for India, I think that Government might do all in their power to cheapen the material required for it. This might be done by giving contracts for the supply of cotton drill to large mill-owners, and issuing the cloth to regiments at cost price.

The wearing of white clothes during the hot weather entails very considerable expense to the men, both in the way of wear and tear and the cost of washing.

I should like to see white clothing abolished altogether, and good khaki substituted. The principal objection urged against this is, that hitherto it has apparently been found impossible to obtain a fast dye,

and that consequently the men of a regiment are dressed in all sorts of tints, varying in shade according to the time that the clothes have been worn, or the number of times that they have been washed.

The best khaki is undoubtedly that which is yarn-dyed; but even that fades.

It would surely be possible for experienced English dyers to invent a dye that would be permanent.

If the issue of tunics was either discontinued altogether, or made less frequent, and that of cloth trousers totally abandoned, compensation might be given in the form of an occasional additional suit of serge clothing, or by cheapening the price of cotton drill.

17. Would you recommend the issue of a service suit of clothing made of cheap and durable material to be worn on service in the field instead of the present uniform?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

The issue of a service kit would no doubt be a boon to the soldier; but I am not prepared to recommend it, because without this kit the troops could never be considered equipped for service, and it would relieve them from a responsibility which it is extremely desirable to maintain at all times. In point of fact, the troops provide themselves universally with khaki uniforms, which are worn alone in mild weather and over their cloth clothing in cold.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

In answer 1 (clause g), I have already advocated that khaki be the regulation uniform for field service.

So much depends upon locality, season, and climate, that I suggest the introduction of a style of dress to be used everywhere.

I believe every one wore khaki during the late war, and mostly *over the regular cold-weather uniform*.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

I would.

Lieutenant-General J. Forbes, Commanding Mhow Division.

I would recommend this issue, but would not confine its use for only on service, but consider a suit of this description could be worn on all occasions for a great portion of the year.

Major-General J. Ross, C.B., Commanding Presidency District.

Yes, of drab color.

Major-General A. H. Macintire, C.B., Commanding Hyderabad Subsidiary Force.

Yes; a service suit of strong material and darkish-grey in color. For cold climates this should be of warm material, with a sheep-skin over-jacket in addition.

For service in warm climates I prefer trousers as now worn. For cold climates I recommend the knickerbocker shape with warm woollen socks and gaiters.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

For any service in the plains the present serge and white clothing are sufficient. For service in the hills during the winter months a suit of strong puttoo would be very useful, being warm and much the same color as khaki.

Major-General H. R. Browne, Commanding Saugor District.

No doubt such a suit would be desirable, but there must be *two* suits.

A soldier has already—

- 1 suit cloth.
- 1 suit serge.
- 4 suits white.

I do not see how he is to maintain two additional suits. The present white clothing, if dyed to a suitable color, would answer the same purpose.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

Yes; of dark-green or blue serge or other woollen material. Red serge soils so soon, and looks dirty after a few days' work.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

Will be answered by the Adjutant-General.

Brigadier-General H. H. A. Wood, C.B., Commanding Deesa Field Brigade.

I would recommend a quilted coat, coming to below the knee made of strong American drill, and dyed either red or blue, according as to whether for infantry, cavalry, or artillery. A coat of similar material, but *not* padded, and much shorter, for ordinary fatigue duties in camp. Quantities of this cloth are made in Cawnpore.

Brigadier-General C. T. Aitchison, Commanding Bombay District.

Yes; on service I would recommend a special issue of a Norfolk jacket, of material suitable to the climate in which the campaign will take place.

Brigadier-General F. G. Kem-  
ster, Commanding Ceded Districts.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

Colonel J. A. Tytler, C.B., V.O.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

Colonel H. K. Burne, C.B., Secre-  
tary to Government of India, Mili-  
tary Department.

Colonel J. Macdonald, C.B., Sec-  
retary to Government of Bombay,  
Military Department.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

Colonel D. Standon, Assistant  
Adjutant-General, Burma Division.

Certainly not. A soldier's ordinary uniform should be suitable for all occasions. I doubt if any *durable* material can be had cheap, whatever may be the *color*. The British and Native armies should be the same, so that it may be easily distinguished at a distance in time of war. Regiments wearing different colors has led to many serious mistakes and losses in the field.

Yes; and recommend a khaki drill Norfolk jacket or blouse that could be worn over the serge or cloth coat; also leather leggings.

The necessity for such an issue as is suggested in this question implies that the present uniform is unsuitable for service in the field—a proposition which, as far as the British troops are concerned, I am not prepared to admit, as it appears to me difficult to devise any dress which would better meet the necessity of service than the present serge jacket and trousers and the white clothing of British infantry, which latter in war time can rapidly and cheaply be dyed a khaki color. I think it is undesirable, the moment the English army takes the field, to put aside the national color; and this is specially objectionable in India, where it is probable that a khaki-colored dress would be assumed by Native troops against whom we might have to fight. There are alterations in the details of the cut and material of the existing uniforms which might possibly be made; but it seems to me to be a much more sound and proper measure to endeavour to make the ordinary dress of

*Vide* reply to query 1 (b). the soldier a suitable one for campaign-  
ing than tacitly to acknowledge it as unsuitable, and then seek the remedy, not in its improvement, but in the issue of another dress for the special service only.

Certainly; a good loose blouse of khaki, so made as to be easily pulled over his red coat, if necessary. All belts should be brown and not pipe-clayed; good *puttees*, or canvas gaiters, like those worn by the European gunners of the mountain battery.

No additional clothing seems called for, unless each man were required to keep himself supplied with a khaki blouse.

If the soldier's uniform is suitable (as it ought to be) for wear on service, I should say no.

Yes; most decidedly. The soldier should be dressed for war instead of as at present for peace. The consequence is that when troops proceed on service, they often get what is termed a service kit. I would recommend the most suitable dress for war being adopted. This can be made smarter for peace time by adding additional lace, &c., which can be removed on taking the field, or else have the undress built on the war model, and the full dress, which would be left behind on proceeding on service, left as it now is.

The British gunner in his tight clothes—jacket, tunic, pantaloons, trousers, long boots, stiff forage cap, &c.—is most unsuitably dressed for active service.

If a separate dress for service be decided upon, an established pattern should be sealed, so that it could be procured locally.

I think for the artillery a blue serge, Norfolk jacket pattern, as supplied for mountain batteries, will be the most suitable; breeches, with lace boots, gaiters, and hunting spurs for mounted branches; knickerbockers, lace boots, and gaiters for garrison artillery.

I found blue serge the best in China and Abyssinia on service. In the former country, during my tenure of the command of the royal artillery there in 1863-64, I attribute much of the good health enjoyed by the artillery in Hong-Kong to its use instead of the white clothing, as worn by the other European corps in the hot weather. While the infantry regiment was losing 90 to 100 men yearly, the mortality in the artillery at this same station was almost *nil*.

The white drill or khaki generally induces chills when men perspire, and which the serge does not.

If cold is anticipated, a thicker material can be used. It should be made loose so as to admit of a stout flannel shirt being worn underneath when necessary.

A portable (folding) forage cap should also be issued for service to the artillery, in assimilation with the infantry glengary, the distinguishing letters or numbers of battery and brigade in brass being worn at the side.

The present artillery forage cap is neither comfortable nor portable, and is consequently quite unfit for field service.

Yes, I think the issue of a drab-colored khaki suit made of some cheap and durable material, instead of the present uniform, would be very beneficial and useful.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant  
Quarter-Master-General.

Yes, but only when a regiment has been warned for active service. A dark-colored khaki blouse, with trousers of the same material, and of a color which will not show dirt, to be worn *over* their other clothes in a cold climate, and alone if the weather is very warm.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

Experience has proved the great superiority of khaki over all other colors for field service. If khaki were adopted as the regular dress for hot weather, an additional suit for service would be unnecessary.

The khaki could always be worn, either alone or over the serge, or whatever other garments the men chose to wear in cold weather.

Even if white is continued for ordinary wear, each man should be in possession of a khaki suit for drill or fatigue duties.

In case of a regiment going on service, the white suits could always be dyed, as is done at present.

Captain M. J. King-Harman,  
Deputy Assistant Quarter-Master-  
General.

Certainly not. Cheapness is not compatible with durability; and even if such a wonderful article as cheap and durable cloth was to be obtained, the special service suit would never be forthcoming when wanted.

For service in the cold weather, nothing is so serviceable as yarn-dyed khaki drill worn over the present uniform.

I see no reason why the khaki color should be adhered to, as it often proves inconvenient, a general sometimes not being able to see his own men.

Yarns might be dyed a permanent red, or green, just as well.

### 19. Is the issue of cloth clothing for British troops necessary in all parts of India?

Lieutenant-General Sir D. M. Stewart, K.C.B., Commanding Southern Afghanistan Field Force.

This question has been answered above; but I may add that, as regards clothing and bedding, British troops should be supplied in accordance with the climate in which they are serving. I believe some changes have been made in this direction of late years; but I fancy there is still room for reform and economy in this respect.

Lieutenant-General C. T. Chamberlain, C.S.I., late Commanding Oudh Division.

Within the tropics cloth clothing can hardly be *necessary*. Most probably serge would meet all the requirements, and is quite good enough for full dress parades.

I was told by an officer of the Madras army that he had never found any use for a cloth coat throughout his service until his regiment came up to Jubbulpore.

Lieutenant-General W. T. Hughes, C.B., Commanding Sirhind Division.

Certainly not. Coats of English broadcloth for British troops serving in Central and Southern India are quite unnecessary, and might be replaced by serge tunics.

Lieutenant-General J. Forbes, Commanding Mhow Division.

For the various temperatures a soldier has to serve in, even in the East, I consider cloth ought to form one of the articles of clothing; but the issue might be made at longer intervals and for the greater portion of the time a suit worn (*vide* paragraph 17).

Major-General J. Ross, C.B., Commanding Presidency District.

It is unnecessary, except in the Punjab and in hill stations.

Major-General A. H. Macintyre, C.B., Commanding Hyderabad Subsidiary Force.

Answered in No. 16.

Major-General R. O. Bright, C.B., Commanding Meerut Division.

In the hotter stations cloth clothing is almost useless. I should prefer a good strong serge, supplemented in the cooler stations by a good thick waistcoat, with sleeves.

Major-General H. R. Browne, Commanding Saugor District.

No; it could very well be dispensed with at most stations in the plains.

Major-General J. W. Schneider, C.B., Commanding Northern Division, Ahmedabad.

It is necessary in this division, when the cold from January to March is sometimes considerable.

Brigadier-General G. Burrows, Quarter-Master-General, Bombay Army.

Will be answered by the Adjutant-General.

Brigadier-General J. W. Jobb, Adjutant-General, Madras Army.

Cloth clothing is useless to the British soldier throughout Southern India and British Burma, with the exception of Bangalore; and there serge clothing would be equally suitable.

Brigadier-General H. H. A. Wood, C.B., Commanding Deccan Field Brigade.

I think it is necessary.

Brigadier-General C. T. Aitchison, C.B., Commanding Bombay District.

Yes, I think so; but, as suggested in reply 16, the issue of cloth clothing need not be so frequent.

Brigadier-General F. G. Kempster,  
Commanding Ceded Districts.

It will last at least four years, as it need be so seldom worn in India proper.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

Certainly not to the extent now issued, altogether irrespective of the climate, by which the issue should be regulated.

Brigadier-General H. F. Brooke,  
Adjutant-General, Bombay Army.

The variations of climate during the year in every part of India with which I am acquainted (*i.e.*, the whole of India except Madras) are so great, that I do not think it would be possible to avoid the issue to the troops of clothing of a material which would be a protection against cold and damp. The troops of the Bombay presidency are at present liable for service in Sind, where the cold during some months is very great; and in that province nothing but cloth clothing or well-lined serge would suffice. For the rest of this presidency, however, serge clothing, made sufficiently loose to allow of warm under-clothing being worn, would probably suffice; but no financial advantage would result from this, as serge does not wear as well or last as long as cloth, and more frequent issues of it would be necessary.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

Yes, in most parts that I have been in myself.

Colonel H. K. Burne, C.B., Secretary  
to Government of India, Military  
Department.

I think cloth or serge necessary wherever troops may be serving. They are always liable to sudden removal to varying climates.

Colonel J. Macdonald, C.B., Secretary  
to Government of Bombay,  
Military Department.

Yes, at long intervals.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

Yes; my experience tells me that issue of cloth clothing is necessary in India, the more so as corps are at all times liable to be hurried at a moment's notice from one end of India to another.

Colonel D. Standen, Assistant  
Adjutant-General, Burma Division.

I think the issue of cloth tunics for British troops serving anywhere in the Madras presidency and in British Burma is unnecessary. Serge frocks with flannel shirts are sufficient in the cold-weather months. Cloth tunics are seldom or ever worn. Cloth trousers might still be issued.

Lieutenant-Colonel H. A. Little,  
Officiating Deputy Assistant Quarter-  
Master-General.

I do not think it necessary in any part of India, if the soldiers are encouraged to use plenty of cold water and to wear under-clothing, and are supplied with sufficient bedding of the best quality.

Major A. A. A. Kinloch, Deputy  
Assistant Quarter-Master-General.

Decidedly not; it is totally unnecessary, and in fact useless, in those parts of India where there is no regular cold weather, such as Calcutta, Bombay, Madras, and in fact almost throughout India, with the exception of the Punjab and the North-Western Provinces.

19. Could not much of the petty barrack repairs, repair of furniture, white-washing, &c., be done on the responsibility of commanding officers on an annual maximum grant?

Lieutenant-General Sir D. M.  
Stewart, K.C.B., Commanding Southern  
Afghanistan Field Force.

All these works could be efficiently done by the troops; and the suggestion of making commanding officers responsible for them is an excellent one, for it would give occupation to the men, and the experience would be instructive and useful to commanding officers.

Lieutenant-General C. T. Chamberlain,  
C.B., late Commanding Oudh Division.

I think the proposal excellent, but would suggest that the sums for each corps or battery should be included in the general officer's allotment for minor works.

I say so because many unnecessary applications have come before me; and it would be advisable to have a check upon indiscriminate expenditure.

Local rates would of course have to be ascertained and fixed, and some special provision would have to be made for meeting extraordinary white-washing and fumigating in time of cholera epidemics.

Contingent bills would do.

Lieutenant-General W. T. Hughes,  
C.B., Commanding Sirhind Division.

It is very desirable that the repairs alluded to should be carried out by regimental workmen on the responsibility of commanding officers. I should prefer bills signed on honor to a maximum grant.

Lieutenant-General J. Forbes,  
Commanding Mhow Division.

Very advisable, under strict and careful supervision. The repairs would give employment to the regimental artificers.

Major-General J. Ross, C.B., Com-  
manding Presidency District.

Such a system might with advantage be carried out; but there would be difficulties at first, as few good artificers enlist, and with short service few young hands care to learn a trade.

Major-General A. H. Macintire,  
C.B., Commanding Hyderabad Sub-  
sidiary Force.

Major-General R. O. Bright, C.B.,  
Commanding Meerut Division.

Major-General H. R. Browne,  
Commanding Saugor District.

Major-General J. W. Schneider,  
C.B., Commanding Northern Divi-  
sion, Ahmedabad.

Brigadier-General G. Burrows,  
Quarter-Master-General, Bombay  
Army.

Brigadier-General F. W. Jebb,  
Adjutant-General, Madras Army.

Brigadier-General H. H. A.  
Wood, C.B., Commanding Deesa  
Field Brigade.

Brigadier-General C. T. Aitchi-  
son, C.B., Commanding Bombay  
District.

Brigadier-General F. G. Kemp-  
ster, Commanding Ceded Districts.

Brigadier-General J. I. Murray,  
Mooltan Brigade.

Brigadier-General H. F. Brooks,  
Adjutant-General, Bombay Army.

Colonel J. A. Tytler, C.B., V.C.,  
Commanding 4th Goorkhas and  
lately Commanding a Brigade.

Colonel H. K. Burne, C.B., Secre-  
tary to Government of India, Mi-  
litary Department.

Colonel J. Macdonald, C.B., Secre-  
tary to Government of Bombay,  
Military Department.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

No; such would not always be practicable, and certainly would not be cheaper.

In some regiments where the system of work of shops is well developed, it undoubtedly could with great advantage; but regiments differ much in this respect. I would leave it optional to commanding officers.

Yes; and probably with much saving of expense and correspondence.

Yes as far as British troops are concerned. No in respect of the royal artillery, as regimental workshops are not maintained by batteries. Petty repairs, &c., to royal artillery barracks could no doubt be carried out on payment by British infantry troops.

Repairs to barrack furniture can be carried out in regimental workshops: it is so to a great extent in the Bombay presidency. The whitewashing of barracks might also be done under the responsibility of commanding officers; though it is doubtful whether economy would result from such an arrangement.

As regards petty barrack repairs, I am of opinion that the proposal is impracticable.

I think in all British regiments there are men sufficiently skilled in trades to do all that is required in completing petty repairs to barracks and furniture; and no doubt such repairs could be done with greater dispatch on the responsibility of commanding officers.

Yes, with advantage.

In Sir Hugh Rose's (now Lord Strathnairn) despatch of the battle of Koonch, he speaks of sickness having deprived him of the services of many of his staff, &c., &c.; but at Calpee shortly afterwards no less than four and twenty regimental officers had to leave the force owing to sickness. I submit that Native regiments as now organized would soon become disorganized under such circumstances, without counting officers killed in action.

Yes, certainly; and I think the usual charges in regimental workshops might be reduced so as not to exceed the contract rates of Native labour.

Certainly, and with advantage both to the State and to the men of a regiment. I apprehend no difficulty.

I doubt if this arrangement, and particularly the grant of an annual maximum, would be found to answer.

In the reply to query 3 I have offered a suggestion by which not only such matters as this, but others of greater magnitude, would come under the direct control of the military authorities. As regards this special enquiry, I am doubtful whether it would be to the advantage of the State or fair to commanding officers to impose even such minor duties on officers who would in most cases have neither the technical knowledge nor information which would enable them to obtain adequate results for the expenditure which they might authorize.

Certainly, with advantage both to the State and the troops.

Certainly; and an excellent arrangement if fair terms could be made. It is always open now to the troops to undertake these petty repairs whenever they like at Public Works Department rates; but I am informed that they will not, as a rule, do it at these rates, finding they do not pay, and have on some occasions after undertaking the work thrown it up.

Petty repairs to masonry would be more satisfactorily carried out by the Public Works Department; but repairs to barrack furniture could be effected by regiments. In fact, some corps do, I believe, repair their own barrack furniture. The whitewashing, too, might be done regimentally.

Yes; I think much of the petty barrack repairs, repair of furniture, whitewashing, &c., could be done by the different corps; but I would not make it compulsory, but would rather give to corps in the first instance the option of executing the different works required.

This procedure I have known to be adopted, and with success in some instances. A corps will often cheerfully accept a contract for performing work required for itself or its own barracks, &c., but are sometimes diffident in offering to accept similar contracts for other corps; and which I think is only natural.

When in command of a battery in Hyderabad in Sind, I accepted a contract for work for the battery barracks, but for the above reason declined to take similar contracts for the infantry corps at the same station.

Colonel D. Standen, Assistant Adjutant-General, Burma Division.

It undoubtedly could be done; but I doubt whether any advantage would be gained by alteration of the existing system as regards petty barrack repairs, &c., and the annual whitewashing of barrack buildings.

Lieutenant-Colonel H. A. Little, Officiating Deputy Assistant Quarter-Master-General.

Yes, most profitably to the State, and advantageously to the command.

Major A. A. A. Kinloch, Deputy Assistant Quarter-Master-General.

Undoubtedly, and probably more economically. Immense delay and inconvenience are often caused by the present system.

20. What is your opinion of the relative military efficiency of Bengal and Madras troops?

Major-General J. Ross, C.B., Commanding Presidency District.

The Bengal troops are, in my opinion, decidedly more efficient than those of Madras.

The latter seem to have degenerated much from what they were in former days. Many officers have told me that they cannot enlist the same class of recruits as they used to get.

#### Miscellaneous Annexures to the Replies of Officers.

No. 2128, dated Camp Ahmedabad, 29th August 1879.

From—MAJOR-GENL. J. W. SCHNEIDER, C.B., Comdg. Northern Division, Ahmedabad,  
To—The Secretary, Army Organization Commission, Simla.

Referring to paragraph 4 of your letter No. 153 (Confidential), dated Simla, the 11th August 1879, I have the honor to state that I consider the efficiency of the Native army would be increased by the addition of an instructor of musketry to each regiment of infantry, if the Army Organization Commission does not recommend a considerable augmentation to the present establishment of British officers.

2. I do not mean to imply that wing-commanders take no interest in the musketry practice of their men. I know them to be regular in their attendance at the ranges, and that they do all in their power to improve the shooting in their wings, both by theoretical and practical teaching. But many of these officers are of considerable standing in the service; and it is evident there must be some among them who have no speciality for rifle practice, since tastes and inclinations vary in this direction.

3. The most competent musketry instructors in Native corps are generally those who are sportsmen; and the indifferent ones would include those who take to indoor amusements, or who have a taste for literature, music and drawing, or other pursuits, and who are not in the habit of handling arms.

4. Nothing can be more irksome to an old officer than to be required to attend daily for hours at the range superintending musketry practice; and although it is true that he receives a staff salary for the performance of this and other duties, yet it cannot always ensure proficiency in drill and exercises for which he has no aptitude. An instructor of musketry would be a valuable addition to a Native infantry regiment; and wing-commanders should exercise a general supervision over the annual practices of their companies, as majors of British corps do over their half-battalions.

Dated Simla, 30th August 1879.

From—COLONEL H. K. BURNE, C.B., Secretary to the Govt. of India, Military Dept.,  
To—The Secretary, Army Organization Commission, Simla.

With reference to your letter No. 181 of the 12th instant, I beg to forward replies to certain of the questions therewith forwarded, and to express regret that the time at my disposal has not enabled me to reply more fully, or to take up all the subjects indicated.

I would add that, amongst other measures of efficiency and economy which are desirable, those which appear to me to be of great importance are—

The reorganization of the medical administrative staff, which could possibly be followed by some reduction in the executive branch of the British Medical Service; and

The consolidation of the three separate ordnance departments into one imperial service.

As regards medical staff administration, the proposals already made to Her Majesty's Government, and which are before the Commission, are almost entirely in accordance with the recommendations made by a committee, of which I was myself a member; and I have therefore nothing to add, believing the reductions proposed to be as extensive as can, at present, be conveniently carried out.

I believe the amalgamation of the ordnance departments would not only result in increased efficiency, but would also tend to considerable economy by the institution of a more direct control over demands and issues, and, by a redistribution of the circles of supply, enable some reductions to be effected in the number of arsenals and depôts and manufacturing establishments in India.

Dated Mussorie, 28th August 1879.

From—LIEUT.-GENERAL C. T. CHAMBERLAIN, C.S.I., late Commanding Oudh Division,  
To—The Secretary, Army Organization Commission, Simla.

It has often appeared to me that the retention of a cantonment magistrate for the station of Clnkrata is an expense which might advantageously be curtailed.

It is a single battalion station which can only have need for a small regimental bazar; and most probably the magisterial work could be done by an assistant superintendent in the Dun, and the rest by the station staff officer.

Dated Mussoorie, 28th August 1879.

From—LIEUT.-GENERAL C. T. CHAMBERLAIN, C.S.I., late Commanding Oudh Division,  
To—The Secretary, Army Organization Commission, Simla.

In accordance with the request contained in paragraph 4 of your confidential letter No. 156 of the 11th instant, I beg to suggest that the office of Director General, Army Remount Operations, is superfluous, as the duties are very light, and could be easily arranged for.

The allotment of horses could be left in the hands of the officer in charge of the Remount Depot, Saharanpur, if his office clerks were increased; and the returns now sent from corps and batteries to the Director General could be sent to him.

The inspections over which Colonel Couper now presides could be done by any qualified combatant officer on deputation; and I believe that the saving to Government would be about Rs. 25,000 annually.

Two letters on separate subjects accompany this.

Dated Mussoorie, 28th August 1879.

From—LIEUT.-GENERAL C. T. CHAMBERLAIN, C.S.I., late Commanding Oudh Division,  
To—The Secretary, Army Organization Commission, Simla.

The regulation which sanctions three, four, and five chargers for captains, majors, and colonels of royal horse artillery and cavalry might with every advantage be rescinded.

In the Bengal cavalry, in fact in all cavalry on the irregular system, two chargers only are sanctioned; and neither in war nor peace does any branch perform harder, if as hard, work as they do.

The necessity for officers keeping so many horses causes an extra strain on the market, and in the field adds considerably to the animals and men to be fed. Moreover, as in the artillery and British cavalry regiments, horses suitable for chargers are always at hand for emergent use, it is evident that one uniform rate for the officers of the mounted branches is feasible and sufficient.

#### MEMORANDUM.

There are two points upon which I should wish to touch, not included in the lists of questions forwarded to me:—

1st.—The very great number of officers absent from duty with their regiments from various causes. A very short examination of the army lists as published in India for the respective presidencies will

Absence of officers from regiments. show the excessive extent of this absence. It is not confined to the season of leave and indulgence, but is normal throughout the year; and it applies equally to British and Native corps. The establishments of British officers in both services have been reduced to a minimum for efficiency. Even supposing that all are present, yet the average condition is that about one-third are absent. It is no uncommon thing to find British regiments, for months together, with three and four companies in charge of young and totally inexperienced officers, not even dismissed from the adjutant's hands. A captain having a subaltern to assist him has almost become rather an exception than a rule. The efficiency of regiments is greatly affected by this absence of the officers. The instruction of officers in their military duties cannot be carried out to the extent that the regulations and orders of the army contemplate. And the evil is still more marked in respect of discipline. For the non-commissioned officers are much changed of late years, and are no longer the experienced steady soldiers of considerable service who formerly exercised a powerful influence in their respective grades. The presence of the officer with his regiment becomes more and more essential every year. Tactics are changing, new arms are introducing, and instruction in all its branches should be advancing. And its advance is directly dependent upon the officers as the instructors of their men.

2nd.—The second subject to which I would refer is the dissemination of the troops in almost all divisions and districts, in numerous small outlying detachments, frequently not relieved for considerable

Dissemination of troops in India. periods. The necessity for many of these small outposts can hardly exist, now that communication in India, both by road, railway and telegraph, has been so greatly improved. All these detachments deteriorate more or less in discipline and efficiency, and are in themselves so many deductions from the power of carrying on the tactical instructions of the troops at the larger stations—a point of the utmost importance to the general service efficiency of the army.

These small detailed stations add much to the expense of the maintenance of the troops. They entail separate establishments, hospitals, &c., &c., to say nothing of visits of inspection from general and departmental officers, and the relief of the detachments themselves.

I am aware that accommodation for troops, to some extent, stands in the way of reducing these minor posts. But I believe that the advantages of concentrating the troops as much as possible in the larger stations, such as the head-quarters of divisions and districts, would, in point of discipline, instruction, and economy, outweigh any inconvenience that the first withdrawals might occasion.

H. R. BROWNE, Major-Genl.,  
Commanding Sanger District.



## B

## BRITISH CAVALRY.

1. Would it be advisable to raise the strength of regiments of British cavalry in India to 549 rank and file, which is the English war establishment, or even higher?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

It would be advisable to increase the number of rank and file as the question proposes. The number of horses should *not* be increased. The proportion of men to horses would then be such that syces would only be required for the horses ridden by the full ranks at stations where the climate is similar to that at Mhow and Ahmednagar.

I would not increase the number of troops, or the number of officers; but I would increase the present establishment by one sergeant and one corporal per troop. (The men increased as proposed above.)

If any real change is introduced, I strongly recommend the adoption of the squadron system for British cavalry. At present there are a great many—too many—horses for the men in the European cavalry regiments.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

Yes. I would recommend that the present establishment be increased to 549, which would give four squadrons instead of three, as at present, with additional complement of officers, as described in army circular, 1st December 1877. Four squadrons are more useful and practicable than three; and the increase in men would give them more nights in bed, and render the regiment better able to undergo the fatigues of a campaign.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

Unquestionably there is nothing more ruinous than "economy" in service establishment of troops at so great a distance from their recruiting depôts. The peace establishment of the 10th Hussars, after reduction at the close of the Crimean war, was 626 rank and file. The present requirements for service troops are no less. The amount of men who in the last campaign could be mustered in the 10th for a final advance on Cabul was little over 200 men; nor could we hope for drafts for four months to come. This represented the effective state for service of a British cavalry regiment after six months' residence in Afghanistan; and this residue of men was further over-weighted for effective service by the unnecessary surplus of spare horses. I recommend at least a total strength of about 600 men to an establishment of horses not exceeding 450. While on this subject, I would strongly advocate the introduction of the squadron system, so-called, tried with satisfactory results in England in the year 1869. This system was abandoned there for reasons which do not hold good in India; and if introduced, would I feel convinced, add to the economy and efficiency for service of a cavalry regiment. The more perfect and effective organization of the squadron has innumerable advantages over the troops, rendered all the more necessary by the enormous increase of clerking and interior administration which now falls on non-commissioned officers, who are neither duly trained to the work, nor able duly to carry out the various duties which fall on them. The organization of a squadron is the only sensible one for cavalry. The squadron is the unit of cavalry in the field: why not in barracks? In the squadron system there is always a second captain in reserve to take up command and one sergeant-major for drill, discipline, and duty, a second being reserved solely as quarter-master and pay-sergeant and clerk to the squadron—a most urgently necessary arrangement. The number of small units in a regiment is halved, and general economy increased. I will not enlarge on this subject.

Lieutenant-Colonel J. C. Le-  
Queane, 12th Lancers.

In 1857 the 12th Lancers, being about 700 strong and disposed into 8 troops, were capable of division and serving as two complete units. Six troops an anomaly. There should not be two opinions regarding the advisability of increase.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

It seems to me that the regimental staff, establishment, and institutions would suit and suffice for a very much larger body of private men.

I have no faith in fixed numbers or such tables as those quoted.

Should recommend four strong squadrons or eight troops and a home depôt.

If the tour of service in India were curtailed, the home depôt might be dispensed with.

This question opens out many issues, and it would be tedious to discuss them in detail.

The 13th Hussars is nominally 455 strong; but deducting a ten per cent. deficiency for men on staff employ, men in hospital or in the hills, the working strength may be said to average about 415.

The greatest number ever mounted for the field during the six years the regiment has been in India was 328.

The fighting strength of the regiment may be said to be 300 sabres; but the committee may form their own opinion as to what the chances of three months' field service would reduce this total to; this varying according to distance, climate, &c., but considerable in any case.

Being absent from my regiment I cannot enter into detail as I should wish to do; but must state without hesitation that the existing arrangement is faulty, that a considerable addition to the rank and file would be most advisable, and that the present organization is elastic enough to receive them.

The normal establishment of a cavalry regiment in India is a question which the means at my command do not allow me to discuss. It would certainly be a saving if the number of cavalry regiments were reduced, and their respective strength increased.

Lieutenant-Colonel G. Lock,  
Commanding 15th Hussars.

It would be certainly most advisable to raise the strength of British cavalry regiments to the English war establishment of 549 rank and file, or 600 non-commissioned officers and men and 480 horses (not including 22 drivers and 44 draught horses allowed on the home establishment). This would admit of four large squadrons being put in the field with a sufficient margin for casualties, a large number of syces being dispensed with.

On proceeding on service the 120 dismounted men should be left at the base of operations and be mounted on horses from the reserve, to be passed on to their regiment as casualties occurred, the reserve horses being trained by them in the meantime.

Major J. W. Chaplin, 8th Hussars.

I certainly think that the *minimum* strength of men of a British cavalry regiment in India should be 549, as the large amount of casualties from men "on command," from sickness, and men regimentally employed, does not leave a sufficient quantity of men to groom and mount the horses, should the services of the regiment be required. This, of course, applies more to the hot than to the cold season; but even in the latter, I think an officer commanding a regiment would find great difficulty in mounting the horses in his regiment. As regards even a "higher strength" of men, I do not consider that 600 would be too many, especially if a "regimental transport" is organized. This would also allow of "four squadrons" being placed in the field—a point of great advantage.

Major E. A. Wood, 10th Hussars.

I think it would be advisable to raise the strength to 600 non-commissioned officers and rank and file and 480 horses.

With this establishment you would always be able to put into the field three squadrons of 150 sabres, unless your casualties were excessive.

Whatever the establishment may be, I would recommend that it should bear the same proportion of men to horses.

It is absolutely necessary in a cavalry regiment to send a certain number of dismounted men on baggage guard on the line of march on service. Very few *mounted* men are required: two per troop mounted and ten dismounted would do all that was requisite. (I am allowing 10 per cent. for sick).

I would recommend then that no troop *syces* be entertained on service.

In a standing camp so many men are required for clerks, store-men, guard, provosts, &c., that you can never mount the whole of your horses; and to be actually serviceable would strongly recommend the proportion of men to horses alluded to above.

Captain T. A. S. Muckenzie, 9th Lancers.

Yes; 549 rank and file, with the English complement of officers, as it would enable a regiment to have four squadrons and be more compact in the field. It would also lighten the duties of the cavalry soldier, and therefore contribute to keep him in better health and efficiency, and with the English establishment of 480 troop horses would allow 69 dismounted men, who would probably represent the sick, convalescent, and a small *depôt* left behind on the regiment taking the field.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

I consider the Indian establishment of the service troops ought to be the same as the war establishment of a British cavalry regiment.

There are at present four scales of establishment, *viz.* :—

- 1.—For regiment recently home.
- 2.—For regiments high on foreign service roster.
- 3.—For regiments on a war strength (in which no allowance is made for a *depôt*).
- 4.—For Indian establishment, sub-divided into "service" and "depôt" troops.

A comparative table of these four scales is appended, a close study of which will show the confusion and endless trouble that must ensue when regiments (as in the case of the 1st Dragoon Guards and 17th Lancers now at the Cape) are ordered on active service abroad with a war establishment, and subsequently transferred to India on the Indian establishment.

BRITISH CAVALRY.

Comparative Tables of Home, War, and Indian Establishments.

	HOME (a).		(b) War.	INDIAN.			REMARKS.
	No. 1 scale.	No. 2.		Service.	Depot.	Total.	
<b>Officers.</b>							
Colonel ...	1	1	...	1	...	1	(a) There are two scales of home establishment, viz.,— No. 1, for regiment lately home. No. 2, for regiment high on poster for service. (b) No allowance made for a depot? (c) No riding-master on war strength? (d) Pay-masters and medical officers, though not posted to regiments; are actually with regiment as "attached officers." (e) What becomes of the sergeant instructor in fancing? He is a staff sergeant, and cannot be sent to troop duty. (f) As there is a medical officer on war strength, surely he ought to have a hospital sergeant. (g) Artificers are most necessary: their place has to be supplied by men withdrawn from the ranks, i.e., from the fighting and grooming strength. (h) A squadron cart should be attached to each squadron, and at least four drivers allowed, with eight or ten horses per troop broken to harness. This gives at once a good nucleus for a very efficient transport train for which the riding-master would be available as superintendent. (i) That is, a fighting strength of 800 of all ranks, not including officers and drivers; and this should be the strength for India. (k) The proportion of horses in India to privates (95 to 100) is too great. Either the number of horses should be reduced, or the number of men increased. (l) A few (say two per squadron cart) draught horses should be attached as the nucleus of a transport train (vide remark a).
Lieutenant-colonel ...	1	1	1	1	...	1	
Major ...	1	1	1	1	...	1	
Captains ...	8	8	8	8	...	8	
Subalterns ...	12	12	16	12	1	13	
Adjutant ...	1	1	1	1	...	1	
Riding-master ...	1	1	?	1	...	1	
Quarter-master ...	1	1	1	1	...	1	
Veterinary surgeon ...	1	1	1	1	...	1	
Pay-master (d) ...	?	?	1	?	...	?	
Medical officer (d) ...	?	?	1	?	...	?	
<b>Total</b> ...	27	27	21	25	2	27	
<b>Non-commissioned Officers and Staff Sergeants.</b>							
Regimental sergeant-major ...	1	1	1	1	...	1	
Quarter-master-sergeant ...	1	1	1	1	...	1	
Band-master ...	1	1	1	1	...	1	
Trumpet-major ...	1	1	1	1	...	1	
Pay-master sergeant ...	1	1	1	1	...	1	
Armourer sergeant ...	1	1	1	1	...	1	
Saddler sergeant ...	1	1	1	1	...	1	
Farrier-major ...	1	1	1	1	...	1	
Orderly-room clerk ...	1	1	1	1	...	1	
Sergeant instructor in fancing ...	1	1	?	1	...	1	
Sergeant cook ...	1	1	1	1	...	1	
Hospital sergeant ...	?	?	?	1	...	1	
Transport sergeant ...	...	...	1	...	...	...	
Troop sergeant-majors ...	8	8	8	6	1	7	
Sergeants ...	24	21	24	18	3	21	
Furriers ...	8	8	8	6	...	6	
<b>Total Non-commissioned Officers</b> ...	51	51	51	41	4	45	
Trumpeters ...	8	8	8	6	1	7	
<b>Artificers.</b>							
Saddlers ...	8	8	4	?	...	...	
Shoing-smiths ...	8	8	8	?	1	1	
Saddle-tree makers ...	1	1	2	?	...	...	
<b>Total Artificers</b> ...	12	12	14	?	1	1	
<b>Rank and File.</b>							
Corporals ...	32	32	32	24	3	27	
Bandsmen ...	...	...	15	...	...	...	
Privates ...	499	498	481	384	53	437	
Drivers ...	...	...	23	(h)	...	...	
<b>Total Rank and File</b> ...	432	530	549	498	56	464	
<b>Total Non-commissioned Officers, Artificers, Rank and File</b> ...	503	601	622 (i)	455	62	517	
<b>Grand Total, including Officers</b> ...	520	628	653	480	64	544	
Troop horses ...	317	378	480	430 (k)	20	450	
Draught horses ...	...	...	44	(l)	...	...	

At home and on the war scale a regiment has four squadrons; but on coming to India one troop is reduced and one troop goes to the depôt, or rather practically two troops are broken up and a new troop made up, for the depôt, of sick and weakly men, men who have nearly completed their service, &c. Only three squadrons are brought out, from which again, in the event of active service or a camp of exercise in India, another depôt has to be formed in India.

It would simplify matters much if a regiment were sent out with four squadrons complete, the sick and weakly old soldiers, &c., being formed into an extra or depôt troop for which a captain and subaltern might be made supernumerary in the regiment during its tour of Indian service.

If this be objected to on the ground of expense, at least care should be taken that the three squadrons are sent out strong enough to take the field in efficient numbers; but under the present system all the artificers, who are extra to the fighting strength on the home establishment, have in India to be furnished with many other working men, clerks, &c., from the ranks, so that what with sick and prisoners, regimental and troop duty men, clerks, shoing-smiths, saddlers, tailors, shoemakers, gardeners, hospital orderlies, canteen waiters, mess waiters, &c., more than a third of the troop are usually "employed;" and though perhaps taken on commanding officers' parades, they are, and can, not be available for stable duty.

The squadron system ought to be adopted in quarters as in the field. I believe most commanding and senior officers would be found

in favor of this system; but among its many advantages I will only mention one as bearing on the question of duties, *viz.*, that the number of men now frittered away on troop duties would be reduced by one-half.

I would suggest that the *proportion* of horses to private soldiers be reduced.

In India the present rule is one horse to every full-rank non-commissioned officer, trumpeter, and farrier; and 95 horses per 100 privates.

In England on peace establishment the proportion is one horse to every full rank, but only 55 or 56 horses per 100 privates; and on the war scale the proportion only rises to 76 per 100.

In India I should say 80 per cent. would be a fair proportion; and our present establishment of troop horses (436) would then suffice for—

71 full ranks	...	...	= 71 horses.
456 privates	...	...	= 365 "
<hr/>			
527 non-commissioned officers, rank and file	...	...	= 436 "

But assuming that the Indian strength should be 600 fighting men, we should require—

71 horses for	...	...	71 full ranks.
428 " "	...	...	529 privates.
<hr/>			
494 " "	...	...	600 all ranks.

## 2. With your present establishment, how many men (rank and file) and horses could you parade with for active service?

Lieutenant-Colonel B. Blondell,  
8rd Hussars.

About 250 men and 400 horses. The regiment is about 141 rank and file below its establishment.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

	Men.	Horses.
At head-quarters, Sialkot	... 251	263
At Kuram ...	... 119	139
<hr/>		
Total	... 370	402

Lieutenant-Colonel Lord R. D. Kerr,  
Commanding 10th Hussars.

Under the most perfectly advantageous circumstances of health, &c., about 410. This does not allow for more than a minimum of sick nor for unformed drafts of young soldiers, nor for young horses, or deficiency in numbers of either men or horses: it considers the regiment completely trained in both, with no requirement for a *dépôt* of any strength.

Lieutenant-Colonel J. C. Le-  
Queste, 12th Lancers.

Total strength 455; ten per cent. for hospital 45 = 41, other causes 18. For service about 390.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

About 320 of all ranks of non-commissioned officers and privates. Deduct non-commissioned officers 30, trumpeters 6, farriers 6, and at least 30 men unfit medically, 320 — (30 + 6 + 6 + 30) = 258. Thus 258 rank and file. These might form four squadrons; but I fancy there would remain but three to face the enemy and no *reserves of men*. This I reckon to be the outside possible under the most favorable circumstances.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

Deducting the probable number of men and horses found medically unfit for service, I could parade about 390 rank and file and 400 horses. In addition to these, there would be about 40 sergeants, farriers, trumpeters, &c.

Major J. W. Chaplin, 5th  
Hussars.

At the present time, owing to a severe outbreak of malarious fever and ague, I do not think the regiment (5th Hussars) could turn out for service a greater number than 300 men, or in the cold season more than 360 men, thus leaving over 130 horses remounted in the hot, and nearly 100 in the cold season, thus proving that more *men* are wanted.

Major E. A. Wood, 10th Hussars.

I should say not more than 400 at the outside to start with from cantonments; and I much doubt that number ever being actually present on parade after leaving cantonments a couple of months.

Captain T. A. S. Mackenzie, 9th  
Lancers.

	Men.	Horses.
At head-quarters, Sialkot	... 251	263
At Kuram	... 119	139
<hr/>		
	370	402
The percentage of sick at the present time is	... 3.28	3.97

Captain B. A. Combe, 10th Royal  
Hussars, and Deputy Assistant  
Quarter-Master-General.

This would depend on many conditions—the time of year, health of the regiments, &c. &c.

When a squadron of the 10th Hussars was ordered last year to join the Kuram column, it had to be sent under 100 of all ranks. There had been a sickly season and the men from the hills had not rejoined.

The two squadrons, on the other hand, that marched later to join the Khyber column were very strong.

Under favorable circumstances, after deducting sick and weakly men, invalids of the season, men detained at the sanitarium, and a sufficient number for the depôt, I consider an average of 60 of all ranks per troop, or a total of 360 men and horses, would be as much as could be taken into the field; and out of these again would have to be deducted casualties, regimental, troop, and camp duties, clerks and working men of sorts; so that practically you would rarely get 300 men on parade. Three squadrons of 30 files in the ranks would be a fair turn out.

3. How many officers are away from the regiment—

- (a) on medical certificate in England or India?
- (b) in England on private affairs?
- (c) staff appointments; and of these how many are seconded?
- (d) regimental depôt or staff college?
- (e) probationers for staff corps?
- (f) garrison course?

How many officers were actually present with the regiment on the 1st August?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

- (a) One in England.
  - (b) One.
  - (c) None.
  - (d) Two at the depôt.
  - (e) One.
  - (f) One.
- Twenty.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

- (a) Three in England, one in India.
- (b) Nil.
- (c) Four, three of whom are seconded.
- (d) Two regimental depôt (one of whom is on special duty at the Cape).
- (e) One.
- (f) Nil.

Twelve officers, including those of the Kuram squadron (seven other officers on leave in India).

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

- (a) Two.
  - (b) One.
  - (c) Three, one seconded.
  - (d) Two.
  - (e) None.
  - (f) None.
- Thirteen.

I object to so many on leave. There are eight now.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

- (a) Three.
- (b) One.
- (c) Four (one staff college; one personal staff; two depôt).
- (d) Besides this, there are two seconded in excess of establishment.
- (e) Nil.
- (f) Nil.

Twenty-one, including two *medical officers*.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

- (a) Seven—  
Lieutenant-Colonel Butler.  
Lieutenant Spilling.  
" Watson.  
" Blagrove.  
" Powell.  
Pay-master Bernard.  
Riding-master Hubbard.

- (b) Two—  
Captain Cuthell.  
Lieutenant Freeman.

The latter sent home to avoid a medical board; is really unfit for service.

- (c) Two—  
Lieutenant-Colonel Russell.  
Captain Gifford.

Neither seconded.

(d) Four at depôt—

Captain Peters.

Lieutenant Brookfield.

” Hunt.

” Morris.

The two latter are raw recruits (if indeed they have joined).

(e) None.

(f) None.

Twelve; including those on privilege leave.

The regiment has been six years at Lucknow; and of course men and officers have suffered a good deal. But the officers show it more than the men, as there have been comparatively fewer removed home.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

(a) In England 2 (veterinary surgeon included). In India none.

(b) Three.

(c) One, not seconded.

(d) At regimental depôt three. Staff college none.

(e) One.

(f) None.

Twelve; but five officers on that date were on leave or on duty in the hills within easy recall.

Major J. W. Chaplin, 8th  
Hussars.

(a) Two	{	England	...	...	...	1
		India	...	...	...	1

(b) Nil.

(c) One, seconded.

(d) Four	{	Depôt	...	...	...	1	Captain.	Subal-
		Staff College	...	...	...	Nil.	tern.	8

(e) Nil.

(f) Nil.

Colonel	...	...	...	...	1
Major	...	...	...	...	...
Captains	...	...	...	...	5
Lieutenants	...	...	...	...	8
Adjutant	...	...	...	...	1
Pay-master	...	...	...	...	1
Quarter-master	...	...	...	...	1
Veterinary surgeon	...	...	...	...	1
Riding-master	...	...	...	...	1

Total ... 19

Major E. A. Wood, 10th Hussars.

Seven.

(a) One in India.

(b) One subaltern in England on private affairs.

(c) One captain and one subaltern on the staff; the captain has been seconded.

(d) One captain and one subaltern at regimental depôt.

(e) One probationer, staff corps.

(f) None at garrison course.

I cannot say, as I was then, and still am, on leave.

Captain T. A. S. Mackenzie, 9th  
Lancers.

(a) Three in England, one in India.

(b) Nil.

(c) Four, three of whom are seconded.

(d) Two regimental depôt, one of whom is on special duty at the Cape.

(e) One.

(f) Nil.

Twelve officers, including those of the Kuram squadron. Seven on leave in India.

4. What reductions do you consider feasible in the establishment of followers with your regiment in peace and war?

Lieutenant-Colonel R. Blundell,  
8th Hussars.

Under the present arrangements, the only reduction that seems to me feasible is to make the men clean their own rooms, and to do away with the two sweepers per troop allowed for that purpose.

If the rank and file are increased, the number of horses remaining as at present, a large reduction in the number of syces could be made.

If green grass is got by contract, then the grass-cutters can be reduced altogether.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

Lieutenant-Colonel G. Luck,  
Commanding 15th (the King's)  
Hussars.

\* See app. XXIX.

Major J. W. Chaplin, 8th  
Hussars.

Major E. A. Wood, 10th Hussars.

Captain T. A. S. Mackenzie, 9th  
Lancers.

Captain B. A. Combe, 10th  
Royal Hussars, and Deputy Assis-  
tant Quarter-Master-General.

5. Do you consider the present mode of entertaining followers can be improved; and how?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

Captain B. A. Combe, 10th Royal  
Hussars, and Deputy Assistant  
Quarter-Master-General.

I should think none—rather more, if any thing.

In peace time none. In war time, with present relative strength in men and horses, none. Were there a great increase in the proportion of men, syces might be abolished. On service the abolition of grass-cutters would entail enormous increase of strain on the commissariat and transport departments of an army, whether in the field or quarters.

I have no followers other than grass-cutters and horse-keepers; and they are *necessary*.

I cannot see how this is possible; but shall be glad to study the question and report, should the Committee so wish.

It much depends on where the war is to be.

The establishment of syces and grass-cutters can be reduced, *vide* memorandum annexed.\*

I do not think that any of the other establishments are excessive excepting that of the hospital; but it is doubtful whether that is any longer considered a regimental establishment.

Some commanding officers consider the allowance of four cooks per troop on service as excessive, and that the duties ought to be performed by the soldier. I do not agree in this, as the eyes of a European cannot stand the smoke that arises from a wood-fire in a mud *choola*.

I consider that hardly any reduction in the establishment of followers is possible—that is, if the necessity of keeping the British soldier in health is kept in view; as if called on to perform the duties he does in England in the hot season, I think he would be found incapable of performing them without great assistance.

I would not reduce the establishment of followers at all during times of peace. If a proportion of six men to four horses was the establishment, the *syces* I think might be abolished in times of war. The remainder of the followers to be on the same scale as the latest one in the Afghan expedition, with the exception of adding troop *dhobies* to this list.

None in time of peace

In war I think the Cabul scale the lowest to which they could be reduced without impairing the efficiency of a regiment.

I do not consider any reductions feasible. If reductions were made, the work now done by Natives would have to be done by soldiers withdrawn from the ranks, thus lessening the fighting strength, already much too weak.

Even with the present apparently liberal allowance of syces in the hot weather, when a large (and yearly increasing) number of men are withdrawn from regiments and sent to the hill sanitarium, the extra work in the way of grooming spare horses and cleaning spare saddles falls very heavy on the duty men left with the regiment.

I do not think that women should be entertained as grass-cutters. In this regiment three-fourths of the grass-cutters are women. I have no other fault to find with the system.

It could be improved by having a fixed establishment of syces and grass-cutters. Great inconvenience is felt by the present system of discharging men when a casualty occurs amongst the horses.

No; by leaving to heads of departments to entertain men for their respective duties, such as syces, &c., a better class of men is obtained for the purpose required.

Yes; a responsible supervisor is necessary—say an ex-Native cavalry man. At present I may take some utter ruffians and remain for a time unconscious.

No; I do not see how it can be improved; but I would suggest that more care be enjoined in the record of services of all Native followers serving for pension.

Forms of records, certificates of discharge and transfer, &c., should be published in general orders; or every man might have a small book with his name (*correctly spelt*), caste, and personal description, and troop officers should be held responsible that all transfers, &c., are duly entered in this book as well as in a general register to be kept in the orderly-room.

Owing to the various ways the names are now entered in the troop muster-rolls, occasional transfers, and the habit of allowing substitutes to serve on under the same names as those of the men (on leave) they replace, it is often difficult, if not impossible, to trace the services of old syces and grass-cutters; and in a British regiment there is not always an officer of sufficient experience and knowledge of the language to properly investigate the claims brought forward every year before the assembly of the invaliding committee; and the interests of old and deserving Native followers often suffer in consequence.

Much difficulty is now experienced in getting grass-cuts, particularly "double" ones, that is, men with a pony, for regiments in the Punjab.

With gram at 8 or 9 seers, the whole of the Rs. 4 pay goes in the feed of the pony; and either the man or the pony must starve if the pony's price has to be paid for. In the 9th Lancers and 10th Hussars this has become a serious tax on the pockets of troop officers, who for the credit of their troops often advance the money for the purchase of a pony with very little chance of recovering more than a portion, if any, of the money. This of course cannot last; and Government must be prepared to face the difficulty either by raising the pay of a "double" grass-cut, or by finding ponies. If the pay was raised, some sort of a chanda fund might be kept up under the troop officer's supervision.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

I think that syces, grass-cutters, and the quarter-master's establishment should be enlisted for a term of years, with a small pension on discharge. Under the present system, with the low wages given by Government, as soon as a syce has learnt his work he leaves the regiment in order to get private service.

Major J. W. Chaplin, 8th  
Hussars.

The present system appears to work well. I have had so little experience of India, that I am unable to suggest any improvement.

Major E. A. Wood, 10th Hussars.

I would improve the pay of the grass-cutters (*I would abolish all single grass-cutters*), giving them Rs. 5 per month; and I would recommend that Government supply them with mules or ponies, which could also be used for regimental transport on the line of march. Government should also feed these animals.

Captain T. A. S. Mackenzie, 5th  
Lancers.

At present, when a casualty occurs among the troop horses, the syce and grass-cutter are at once discharged; consequently, when remounts join, great difficulty is experienced in finding these men again. I am of opinion that a fixed establishment should be maintained; that the men should be enlisted and be subject to military discipline.

## G. Can they be so organized in peace as to make them less dependent and defenceless in war?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

I don't think that it would be worth while organizing them: their present duties occupy all their time. I think they should be armed with a light sharp sword, and told what under ordinary circumstances it would be best for them to do when attacked.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

No; they are not high class, of which fighting men are made.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

As a general rule, I think not. As a general rule, the class from which Native followers (syces or grass-cuts) are taken does not produce soldiers; nor will fighting men come at the rate of wage given. In the recent campaign, armed followers seem to have but rarely used their weapons in self-defence when attacked.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

Apparently they have quite enough to do, without being turned into soldiers.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

I think not. They come from anything but the fighting races. I have known three unarmed Afghans attack four armed followers and kill them with their own swords.

Major J. W. Chaplin, 8th  
Hussars.

I should say undoubtedly that they could be armed and drilled in such a manner that, under two or three good Native and one British non-commissioned officers, they could be made sufficiently formidable to repel such attacks as they appear to have been subjected to in Afghanistan.



Major E. A. Wood, 10th Hussars.

Some kind of weapon might be issued to them, and they might be instructed how to use it. This would especially apply to grass-cutters.

Captain T. A. S. Mackenzie, 9th Lancers.

If enlisted as suggested in answer 5, I am of opinion that a pensioned duffadar of cavalry should be attached to each troop, so that the followers on enlistment should be drilled and taught the use of the sword. These duffadars would be very useful in maintaining discipline among the syces.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

As long as the present *and only available* class of men are entertained as syces and grass-cuts, they cannot ever be depended on to show fight, even in self-defence.

7. Taking the list of followers attached to your regiment in succession, state how the duties performed by them is carried on at home.

Lieutenant-Colonel R. Blundell, 3rd Hussars.

Duties of—			
Native farriers	...	...	... by soldiers.
Syces	...	...	... by ditto.
Grass-cutters	...	...	... by contract, when any is given.
Lascars	...	...	... by soldiers.
Bhisties	...	...	... water is laid on.
Barrack sweepers	...	...	... by soldiers.
Chowdry	...	...	... _____
Bazaar peons	...	...	... _____
Chowkidar for hay-stacks	...	...	... _____
Halalcore bhisties	...	...	... _____
Latrine sweepers	...	...	... by soldiers.
Bildars	...	...	... _____
Filth-cart drivers	...	...	... _____

*Hospital Followers:*

Barber	...	...	... _____
Head-cook	...	...	... by army hospital corps.
Assistant-cook	...	...	... by ditto.
Bhisties	...	...	... _____
Sweepers	...	...	... by army hospital corps.
Ward servants	...	...	... by ditto.
Doolie-bearers	...	...	... by ditto.

Lieutenant-Colonel R. S. Cleland, 9th (Queen's Royal) Lancers.

*Syces.*—Stable duties performed by non-commissioned officers and men.  
*Grass-cutters.*—Fodder supplied through the control department by contractors.

*Bhisties.*—Men draw and carry water for their own use.

*Dhobies.*—Washing done by the soldiers' wives.

*Sweepers.*—Barrack-rooms cleaned by soldiers' wives; the barracks by soldiers where no sweeper is employed. Most regiments employ sweepers, deducting 1d. per mensem from each man's pay for wages.

*Cooks.*—Cooking at home is done by one man per troop, told off for that purpose monthly. They are under the superintendence of a sergeant master-cook, who has to obtain a certificate from the Aldershot School of Cookery.

*Khullasies.*—Tents at home are under charge of the control department, and issued to the troops for marching or manœuvring. They are pitched by the troops, who are responsible for them until returned into store.

Lieutenant-Colonel Lord R. D. Kerr, Commanding 10th Hussars.

*Syces.*—Grooming done at home by soldiers.

*Grass-cuts.*—Forage supplied by control department.

*Cooks.*—Two soldiers per troop and one sergeant cook per regiment.

*Sweepers.*—Soldiers, fatigues, and one or more barrack sweepers hired by the men.

*Dhobies.*—Washing done by soldiers' wives.

*Chuprassies.*—By orderly duties.

*Bhisties.*—Water drawn by soldiers from barrack pumps and taps.

*Lascars.*—No camp equipment kept by regiments, but issued as required for immediate use.

*Hospital establishment.*—Found by army hospital corps.

Lieutenant-Colonel J. C. LeQueano, 12th Lancers.

The grass takes the place of hay supplied by contractors in barracks by such persons on the line of march as are compelled to billet soldiers. Cavalry at home have many less horses than men, so can easily superintend themselves.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

## (a) Syces—

The work is done by the men themselves, but at home there are 150 men dismounted in each regiment, and frequently a man has two horses to look after (a double horsemen). Of late years men are more idle; and when many have this extra work, desertions become frequent. Desertion is more serious to a cavalry than an infantry regiment.

In India 21 spare men.

Establishment	...	...	...	455
Horses	...	...	...	436
				21

Men cannot be expected to do the same in such a climate as that of Lucknow and to remain alive. Syces are also needed to take charge of spare horses, to take horses to water in hot weather, and for midday stables. They also do all sorts of extra work at odd times.

## (b) Grass-cutters—

At home forage is done by contract, and not too well.

## (c) Lascars—

The men take charge of their bell tents.

## (d) Puckalis—

Water is usually laid on from water-works.

## (e) Bhisties—

Barrel of water carried on march but rarely; otherwise water is everywhere.

## (f) Hospital—

Army hospital corps, with soldier assistants.

## (g) Saddlers—

Artificers—

Nalbands—

Done by soldiers and by occasional hired labour.

Lieutenant-Colonel G. Luck,  
Commanding 16th Hussars.

Followers.	Duty performed by at home.
Jemadar syces ...	Soldier.
Syces ...	Ditto.
Native farrier ...	Ditto.
Grass-cutters ...	Forage received from contractor.
Tindal	} Quarter-master's establishment: no equivalent to this at home.
Lascars	
Puckalis	
Bhisties	
Chowdry	
Mutsuddy	
Weighman	
Sweepers	} A few old pension- ers are generally employed to sweep up the barracks.
Bildars	

*Hospital establishment.*

Native writer ...	Hospital sergeant.
Compounders ...	80.
Dressers ...	Hospital orderly.
Shop-coolies ...	Ditto.
Barber ...	Soldier.
Cooks ...	Ditto.
Bhisties ...	Ditto.
Sweepers ...	Pensioners.
Coolies ...	} No equivalent.
Female sweepers ...	
Mates ...	
Doolie-bearers ...	

Major J. W. Chaplin, 8th  
Hussars.

## How performed in England—

- (a) Not required in England, as there are no syces.
- (b) Performed by a corporal.
- (c) Farriers and shoeing-smith.
- (d) By the soldiers.
- (e) By contractor.
- (f) No equivalent.
- (g) and (h) No equivalent, tents being kept by the control.
- (i) Water is generally procurable from pipes.
- (j) By the soldiers.
- (k) No equivalent.
- (l) No equivalent.
- (m) These at home are all provided for in barrack accommodation.
- (n) By contract.

Captain T. A. S. Mackenzie, 9th Lancers.

*Syces*.—Stable duties performed by non-commissioned officers and men.

*Grass-cutters*.—Fodder supplied through the control department by contractors.

*Bhisties*.—Men draw and carry water for their own use.

*Dhobies*.—Washing done by soldiers' wives.

*Sweepers*.—Barrack-rooms cleaned by soldiers' wives; the barracks by soldiers where no sweepers are employed. Most regiments employ sweepers, deducting 1*l.* per mensem from each man for wages.

*Cooks*.—Cooking at home is done by one man per troop, told off for that purpose monthly. They are under the superintendence of a sergeant master-cook who has to obtain a certificate from the Aldershot School of Cookery.

*Khullassies*.—Tents at home are under charge of the control department, and issued to troops for marching or manœuvring. They are pitched by the troops, who are responsible for them until returned into store.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

Syces	...	...	...	By the men themselves.
Grass-cuts	...	...	...	Forage by contract.
Bhisties	}	...	...	{ By fatigue parties of the men.
Sweepers				
Dhobies	...	...	...	Washing clothes and cleaning barrack-room by soldiers' wives.
Cooks	...	...	...	By the men themselves.
Lascars	...	...	...	Fatigue parties.
Native farriers	...	...	...	Shoeing-smiths.

## 8. Is the issue of cloth clothing for British troops necessary in all parts of India?

Lieutenant-Colonel R. Blundell, 3rd Hussars.

It is certainly necessary in the Bombay presidency—the only presidency in which I have served.

Lieutenant-Colonel R. S. Cleland, 9th (Queen's Royal) Lancers.

Yes, as there is cold weather where British cavalry regiments are stationed.

Lieutenant-Colonel Lord R. D. Kerr, Commanding 10th Hussars.

To the best of my belief, it is either for cold or wet weather which comprises a considerable portion of the year, but on a limited scale. Cloth pantaloons, however, are desirable also in the hottest season.

Lieutenant-Colonel J. C. Le-Queno, 12th Lancers.

Certainly at this station it is.

Lieutenant-Colonel H. S. Butler, 13th Hussars.

Not as issued at present for the climate of Lucknow. Whole system requires looking into.

What is suitable for one part of India cannot possibly be good for another, so far as my experience goes.

Lieutenant-Colonel G. Luck, Commanding 15th Hussars.

For cavalry, yes. But the issue of tunics should be biennial, compensation being paid for the intervening years to defray the expense of white clothing.

Major J. W. Chaplin, 8th Hussars.

Possibly the issue of cloth clothing for British troops quartered in the southernmost parts of India or in Ceylon is unnecessary; but I should consider it an absolute necessity in other parts of India.

Major E. A. Wood, 10th Hussars.

Necessary in all parts of India that I have served in, *viz.*, in the Punjab and North-Western Provinces.

Captain T. S. A. Mackenzie, 9th Lancers.

The 9th Lancers since their arrival in India have only been quartered at Sialkot; and I am of opinion that cloth clothing is requisite in this part of the Punjab.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

I have only experience of the Poona division, North-Western Provinces, Oudh, and the Punjab—in all of which cloth clothing is certainly necessary.

## 9. In what way can the uniform and equipment of the British army in India be improved?

Lieutenant-Colonel R. Blundell, 3rd Hussars.

The uniform might, I think, be improved by doing away with the tunic, and issuing in its place *annually* a loose fitting serge jacket—a

kind of Norfolk jacket. The officers of the Central India Horse wear the sort of jacket I mean. I would have nothing on the jacket that required *chroming*.

*The equipment.*—The sword, I think, should be carried in a different way; and here, again, I would adopt the pattern worn by the Central India Horse. That is, wear the sword-belt outside the jacket, and support the weight of the sword by a belt passing over the shoulder.

The sword should be shorter and lighter, and the wearer should be able to walk comfortably with it, without having to hook up swords, or any similar arrangement, just as easily as the Native cavalry do. Its scabbard should be one that would not blunt it; and I believe a leather scabbard is the best. I prefer plain leather belts to the present buff ones. I would do away with the sabretache.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

I would recommend steel shoulder-straps, in addition to the present uniform.

Lieutenant-Colonel Lord B. D.  
Kerr, Commanding 10th Hussars.

By abolition of useless lace and of tight stable jackets, and substitution therefor of loose light serge jackets for fatigues and undress. This material is light, and fit for wear during the cold weather and during the rains. In place of the tunic, I should prefer a coat of the Norfolk jacket pattern, with leather waist straps; and for service pantaloons to be made looser over the knee, and *puttees* for all dismounted duties, guards, &c., to be worn with highlows; for mounted duties, loose pantaloons, highlows, and leather gaiters, to fasten with a catch. In place of the forage cap, which is cumbersome to carry, I should recommend a soft cap of loose texture which can be pulled over the ears in cold and bitter weather; also a lighter pattern sword, the present one being clumsy and heavy, originally made for men of six feet and upwards, and not reduced in weight for smaller men. Abolition of the sabretache and sword-slings, and substitution of a frog for the latter. The present pouch belt is cumbersome and unsuited for Henry-Martini ammunition. I recommend that a pocket (leather) be let into the left breast of the tunic or service coat, to hold present use cartridges; each cartridge to be let into its own groove. A further supply to be carried in a pouch on the waist-belt.

The new iron saddle is of a pattern which cannot well be improved. I recommend abolition of cruppers and breast-plates; the disuse of the brass bosses on the saddlery, which only cause great waste, as the polishing of such bosses with brass paste rots or perishes the leather around, the rest of the article being perfectly good, serviceable. There should be a chain passed from cheek to cheek of the bit over the horse's poll, as a guard against swordcuts. The chain may easily be covered with leather to avoid glitter.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

Take the weight off the horse and carry the kit in squadron or troop carts.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

This is a very difficult question, and I think that nothing like success can be arrived at without careful experiment and observation.

The helmet seems very good; but portion of *pugree* should hang over back, to protect the spine.

I do not think there is any other article of the equipment which is not more or less undesirable. I hope that the Committee will excuse my entering into detail, which I shall be happy to do to a Sub-Committee so soon as I shall have rejoined my regiment and have access to my notes.

Lieutenant-Colonel G. Luck, Com-  
manding 15th (The King's) Hus-  
sars.

I would recommend that Hawkes' light helmet be substituted for the wicker one now issued. Hawkes' helmets were issued to the 13th Hussars 5½ years ago; they have undergone all the hard usage of a campaign, and are still both serviceable and smart-looking. The great objection to wicker helmets is that they harbour bugs; in fact, they are called bug-traps by the British soldier.

The cavalry sword is altogether too heavy and unwieldy for hussars.

The mode of carrying ball ammunition is highly objectionable on sanitary and other grounds. The weight causes great pain on the chest, especially when moving at a trot; and the constant jolting knocks the pouches to pieces.

Major J. W. Chaplin, 8th  
Hussars.

For cavalry—

The "jack boots" now issued are badly made and cut, and of inferior leather. I would suggest that they be provided for regimentally.

I believe a new pattern is likely to be soon introduced.

I would advocate each soldier being supplied with an extra pair of pantaloons instead of cloth trousers, which I would do away with, and a pair of Hessian instead of "Wellingtons."

I have always considered the present sword too heavy. I would suggest the issue of a lighter one.

I am in favor of retaining the present pipeclay belts.

The gullet irons appear to open out a great deal in India. Could not steel ones be substituted?

Valises might be made lighter and smaller if a regimental transport was in force.

I would abolish tunics in India, and in place thereof give the soldier a well-cut patrol jacket of a *good* pattern, or allow him compensation to keep up another stable jacket and a suit of serge clothing.

Major E. A. Wood, 10th Hussars.

For answer to this question, see—

“*Notes on Cavalry Equipment.*”

During the recent campaign in Afghanistan, I wrote down at different times some notes on equipment, &c., which I have now collected.

The object I have chiefly in view is to obtain for the service a “fighting dress,” apart from their ordinary uniform.

I believe if this was granted, the soldier’s dress would not be a bit more expensive than it is at present, while the dress for home service might be made even more handsome and attractive than it is at present.

If the “fighting dress” was made the same, or as nearly as possible the same, for all branches of the service, much expense would be saved; and in war the facility of supplies of fresh kit and clothing would be greatly increased.

Something apparently is wanted to make the uniform at present worn in India fit for campaigning in that or in neighbouring countries, as during this last campaign in Cabul, as soon as the frontier was crossed, there was scarcely a regiment of the European troops clothed in its ordinary regulation kit or dress.

Khaki was the predominant color, but of various shades and hues. Officers of mounted branches and staff appeared to please themselves as regards the equipment of nether limbs. Some wore boots, some gaiters, some *puttees*, some trousers and shoes. In fact, there was a very great want of uniformity in all branches of the service.

I also think it would be a good thing if not only was a proper dress for all branches to be determined on for campaigning purposes, but that there should also be an officer’s *kit* of uniform pattern, and also a tent and camp equipage, which should be strictly conformed to by all branches of the service.

#### *Dress.*

I would recommend *for service* a totally different dress from the one the soldiers would wear in England.

There let the soldier be comfortably but attractively clad. A handsome uniform gains to the service many a recruit.

There is no reason why the same kind of service dress and kit should not be assimilated, as closely as possible to all branches of the service.

At home the service kit would only be issued to troops on their receiving the orders to hold themselves in readiness for active service. The dress for home service would then be taken into store, with such articles of kit as were not absolutely essential on active service.

In India I should like to see the *service kit* kept apart from that usually worn in times of peace, *but in possession of the soldier.*

In India regiments do not change their stations nearly as often as in England. Therefore there would be no objection to issuing the service kit to soldiers proceeding to India during times of peace.

The articles of service kit which did not form part of the regular kit would always be shown at inspections of necessaries; and in India would be far better in the keeping of the soldier than in stores, where whole cases of clothing, &c., are frequently destroyed by white-ants, &c.

#### *Helmet.*

I believe it has already been determined at home to issue a *helmet* to all regiments proceeding on active service, and would therefore recommend the same as issued at present, with the addition of a khaki cover for India.

#### *Blouse or Coat.*

I think there is no pattern more comfortable or serviceable than the “Norfolk jacket,” with pockets in the breast as well as on the skirts (all pockets to have a flap to button over the pocket), and a broad band of the same material as the blouse, to be worn inside the blouse round the waist, stitched to the blouse. The cuff should be turned back with a slit, so that it could be pulled down over the hands in cold weather. There should be shoulder straps on the blouses, on which in each regiment the number should be plainly and firmly sewn.

I would recommend the material to be made of cloth or serge, color red for European, and khaki for Indian service. Inside the blouse should be stitched from the collar to the elbow of each arm a piece of chain sewn on leather. This is a great protection; and if properly made and fastened inside the coat, the wearer need scarcely be conscious of having it on.

The Norfolk jacket should be made loose enough to permit of a *waistcoat* with *sleeves* of some strong warm material being worn under it. This, however, would only be issued to troops proceeding to an exceptionally cold climate, where extra warm gloves and socks should also be issued.

There should be a roll collar to the Norfolk jacket about two inches in depth. The collar to be fastened loosely by hook and eye. In severe weather the collar could be turned up.

#### *Pantaloon.*

The same as now issued; only for cavalry the pantaloons should be made looser over the thigh.

For India, however, I would recommend khaki color, without any lace.

Material should be cotton cord or corduroy, with strapping of some material for cavalry inside the knee.

This material washes well and does not shrink, dries quickly, and, when drawers are worn underneath, would be warm enough even in winter.

For infantry, trousers might be substituted for pantaloons, and worn with gaiters for European service, and cloth bandages (*puttees*) fastened with strings for Indian service.

#### Boots.

Opinions are so much divided on this point, and it is so very difficult to get a boot that is both comfortable and slightly for *both* cavalry and infantry, that I hardly think the two branches can be dressed alike in this respect, unless a gaiter and boot combined is introduced; and to this there will be many objections on account of the difficulty of obtaining *neatness* when the boots have to be made *wholesale*. True it is that a London bootmaker could turn out a gaiter and boot combined to fit any individual; but gaiter boots bought or constructed in sizes would be most difficult to fit accurately.

Still, if it were possible, the economy in the end to Government would be so great, that I think it would be well worth an experiment.

I propose a gaiter and boot combined on the principle shown in the drawing,\* with moderately thick soles. The gaiter, which would be inseparable from the boot, should be laced over a "tongue" from the lower part of the instep, half-way up the leg, and then to fasten round the top with strap and buckle, just above the swell of the calf.

There is a gaiter boot now made which might be approved of as suitable both to cavalry and infantry. For cavalry there should be a rest for the spur above the heel.

Still for active service in India I am not sure that long boots or gaiters might not be dispensed with altogether, and highlows and bandages (*puttees*) issued alike both to cavalry and infantry. There is, however, one disadvantage with these *puttees*. Unless they are very carefully fastened by the string at the top above the swell at the calf of the leg, they are apt to work down when men are riding in the ranks.

Since writing the above I have been shown a boot and gaiter which to me appears more suited to every branch of the service than any other.

The boot is the ordinary highlow as at present issued.

The gaiter is like a Hessian boot without a foot to it.

The gaiter is drawn on over the trouser, pantaloon, or breeches before the highlow is put on.

It is secured from turning round by a loop in front and in rear (inside the gaiter), which is fastened to a corresponding button on the pantaloon.

At point A a spur rest is strongly stitched; and at B a small piece of leather B of same thickness as gaiter is also sewn.

The spur strap fastens across and just above this.

These two pieces of leather A and B prevent all possibility of the gaiter rucking up; and of course may be dispensed with for the dismounted branches of the service.

This gaiter was shown to me by Colonel MacGregor, Deputy Quarter-Master-General in India, who informs me that he has both walked and ridden many miles in them, and has used them for years without ever experiencing any difficulty in drawing them on, even when wet.

Care should be taken in making these gaiters that they are sufficiently cut down in the rear at point C to admit of their being raised sufficiently high so as to admit of the highlow being put on without any difficulty. The great advantage of these gaiters are that there are no buttons or loops outside, which are so liable to be rubbed or torn off when riding in the ranks.

For cavalry, a thin steel bar might be inserted in the leather down the outside of each leg. This would be great protection to the man, and help to preserve the shape of the gaiter, in the same manner that "jacking" does the long boot.

The true secret of making highlows comfortable to wear is to soak them in oil for twenty-four or forty-eight hours, both *inside* and *out*. That once done thoroughly, a very little grease or oil from time to time keeps the leather quite soft and the seams from giving way. It is astonishing how long boots will last, if properly taken care of; and with *two pairs* of highlows it is not a very difficult matter to keep them in order.

Constant attention of the troop officers to see that non-commissioned officers in charge of squads do their duty in frequently inspecting the kits of the men of their squad is the real secret of men having their boots and clothing in proper order.

#### The Sword.

The latest cavalry sword issued is excellent in pattern, but is too heavy.

Now I do not know of any reason to prevent its being made much lighter.

Surely the swords issued are made of the BEST steel.

I propose that the sword should still retain its shape, length and pattern, but should be very much lighter.

The steel scabbard at present in use is much too heavy.

In times of peace the wooden lining gets worn by the sword being returned after drawing. The young soldier finds suddenly that he cannot return his sword owing to the wooden lining becoming detached, and on his return to quarters is recommended by his older comrades to take out the wooden lining altogether, assigning as a reason that the wood frequently gets damp and makes the sword blade harder to keep bright. The wooden lining in the old pattern scabbards not coming up to the top of the scabbard, it was not easy to detect whether the wooden lining was in the scabbard or not.

The regiment is suddenly ordered on service, swords are sharpened, and at the end of a few marches they are found to be blunted, simply from being loose in the scabbards.

In India the Native cavalry regiments use wooden scabbards covered with leather; and this keeps the sword sharp. The Native cavalry sword, however, is of a different pattern to that used by European cavalry, and moreover is hung in a frog.

During the Afghan campaign the 10th Hussars had a squadron detached with the Kuram valley division.

\* Not published.

This squadron was supplied with wooden scabbards covered with leather, and their swords were suspended in a frog.

On this squadron rejoining the head-quarters of the regiment at Jellalabad some three months afterwards, the swords were found to be as sharp as the day they were sharpened before using the wooden scabbards.

The wooden scabbards, however, even in that short space of time, were found to be much worn, especially at the end, and where they had come in contact with the spur, so much so that it was found necessary to cast them all and revert to the plan adopted by the other two squadrons of the regiment at head-quarters with the Peshawar Field Force.

These two squadrons covered their steel scabbards with leather; took out the lower ring of the scabbard, fastened it to the leather work opposite the top ring of scabbard, to which the short carriage of sword sling was attached, shortened the long carriage of sword-belt, and fastened it to the top ring of scabbards as per drawing. This plan answered fairly well; there was no glitter or jingle, as great care had been taken to see that all the scabbards were fitted with the wooden lining; and as the swords were only drawn on very few cases, the edge of the sword was kept sharp.

I would suggest for service a much lighter steel scabbard than that issued at present, covered with leather to avoid glitter or noise, and with wooden lining of pattern of latest issue.

Great care should be taken in fitting the wooden lining into the scabbard. Frequently the wooden lining does not come up sufficiently high into the locket, which is a piece of iron or steel inserted into the top of the scabbard with a kind of mouthpiece braised on to it. This is secured to the scabbard by two little screws on each side, and is necessary to enable the wooden lining to be removed (but only by the armorer) for the purpose of repairs or drying.

If the wooden lining (as unfortunately frequently occurs) does not come up sufficiently high into the locket when the sword is drawn about three parts out of the scabbard, the edge of the sword comes in contact with the mouth or some part of the locket, and consequently gets blunted.

I would also suggest that the scabbard be fastened to the saddle in a frog when mounted and not to the waist-belt (see paragraph on the carbine). Should, however, it be deemed necessary to attach the sword to the soldier's person, it should be carried in a frog, or as shown in the drawing.

The cavalry sword is not an effective weapon for offence or defence when used dismounted, and for dismounted purposes, when ammunition was expended, a knife bayonet, as shown in the drawing, fixed to the carbine, would be a much more effective weapon.

#### *Bayonet knife.*

I would propose a strong knife of pattern shown in drawing, blade not longer than 6 inches, or broader than 2 inches at hilt, with a fitting in the handle like the *sword bayonet* to fasten on to the carbine in cases of emergency. The knife would be carried on waist-belt between the cartridge cases on the left side.

#### *Carbine.*

The present Henry-Martini carbine is an excellent weapon; and I think cannot be improved upon, unless the plan invented by the late Captain J. Mure, 34th Regiment, Deputy Assistant Adjutant-General for Musketry in India, should prove a success. This consists of adding a piece by means of a bayonet fitting to the barrel of the cavalry carbine, whereby the weapon is made identical with that used by the infantry.

It is the opinion I know of many distinguished officers that as the carbine is a weapon that can only be used on foot, it should be attached to the person of the soldier and not to the horse. I have heard of and seen many ways of carrying it on the soldier; but to me no plan seems better than that mentioned in "Modern Tactics of the Three Arms" by General M. W. Smith, page 300, in which the writer says:—

"Admitting that it is most desirable that the firearm should be attached to the rider and not to the saddle, it has always appeared to me that the way to carry it is attached to the waist-belt.

"Having come to the conclusion that the firearm should be attached to the man, and not to the saddle in action, and that being attached to the waist-belt seems to present less advantages than any other mode of carrying it, I turned my attention to obviating as much as possible the disadvantages just mentioned. A cavalry man ought to be able to mount and dismount quickly, with his arms attached, without awkwardness or difficulty. He ought to be able to get at his firearm, and bring it into action as quickly, if not more quickly, than his sword. The waist and hip should be relieved as much as possible of the weight of the carbine, even in action. That is, when the men are formed *en bataille*, and when marching at ease, there should be a mode of attaching it centrally (not at one side) to the forepart of the saddle, but so that in a second, when the order to form is given, the carbine should be re-attached to the waist-belt.

"In order to meet these requirements, I should propose that the carbine should be supported by a steel loop or bar on the stock, by means of which it can be attached to a hook placed at a certain angle on a double steel plate, through which the waist-belts of the present pattern can be passed. The jerking motion produced by the action of the horse in trotting, galloping, or leaping is more or less on a line vertical to the surface of the ground; and although this movement would jerk the carbine off a hook placed in the usual manner straight up and down on the waist-belt, unless retained by a stay-strap, when the hook is placed at an angle upon the plate greater than the angle formed with the horizontal line by any line of motion upon which the action of the horse could cause the bar of the carbine to work, the carbine will remain attached to the hook under all circumstances without a stay-strap. I have tested this in every possible way; and it must be obvious that the movement of the horse only drives the bar against the hook without detaching it. So far nothing more has been done than altering the angle of the hook and attaching it to a double steel-plate, through which the belt is run; and having no stay-strap to unbuckle or unbutton, it will be evident that the action of attaching and detaching the carbine will be instantaneous, and being attached to the hook by a fixed bar instead of a sliding ring, it can be attached or detached by a feeling of the hand without the necessity of looking down.

"In order to relieve the waist and hips as much as possible from the weight of the carbine, and also to enable a man to mount and dismount without difficulty with his firearms, a small circular spring is attached just above the knee of the right leg, into which the barrel of the carbine can be inserted by a single quick motion of the right hand before mounting, detached when mounted in a moment from both hook and spring in order to bring the carbine into action, and attached again as rapidly; and this can be done with ease when the horse is at speed. If the men wear overalls, it would be necessary to attach the spring by a small strap, or by some other means which might be devised. But if boots should be substituted for overalls, and the boots should be made to form a defence to the leg by having them made with a small thin bar of steel running the length of the leg of the boot, the bar could be attached inside the leather without in any way altering the appearance of the boot; and in this case the small spring could be fastened to the top of the bar of the right boot, which would bring it exactly into its right place when the man is mounted.

"The spring could be easily fastened to the bar, and unfastened again by a simple screw; but the spring is so small, that it would not attract attention when the man was dismounted, even if left attached to the boot.

"By placing the barrel in the spring as described, a certain portion of the weight, when the man is mounted, is borne by the stirrup, which consequently relieves the waist; and the carbine is also further secured from any possibility of becoming detached by the motion of the horse, and is also in a position which enables the man to attach and detach it in a moment. In the case of the horse falling flat on his side, which is not a very likely casualty to occur, the barrel being forward on the knee, would fall clear of the man's leg; and the stock is in the hollow between the hip and the ribs. When carried in the carbine bucket, in the event of a similar accident there would be a probability of the man's thigh-bone being broken; and it would be impossible to equip a man so as to provide altogether against his being injured in case of accidents.

"The spring is perfectly simple and strong in construction, not in the least likely to break or get out of order. Even if the spring, which is contained within the ring, should break or fail, which is almost impossible, it would be replaced by another in a few minutes. Half-a-dozen spare springs could be easily carried in the pocket, or two or three of the rings might be carried by each man if necessary.

"When marching at ease, or when there is no immediate prospect of action of any kind, it might be desirable to relieve the man of the weight of the carbine altogether by attaching it temporarily to the saddle, with the power of resuming it again at a moment's notice. But this matter belongs more especially to the arrangements of the saddle."

#### *Pouch belt.*

Should, however, the present method of carrying the carbine on the horse be considered preferable, I would anyhow suggest that the present belt and pouch be abolished, and that the cartridges be carried in a belt over the left shoulder as per drawing. The ends of the belt are here fastened together by two studs, and the cartridges inserted into separate leather compartments.

Forty cartridges carried in this manner on a belt of the description proposed weigh with the belt nearly 2 lbs. less than the same number of cartridges carried in the pouch with its belt of present pattern.

In the pouch of present pattern the cartridges run the risk of being considerably damaged when once loosened from their paper packing. In fact, the present pouch is not adapted in any way for the safe carriage of the ammunition for the Henry-Martini carbine.

The brass buckle and slide of the pouch belt are also very conspicuous by the glitter. I have distinguished at a great distance small bodies of cavalry dressed in khaki that would not have been noticed at all had it not been for the glitter of the buckles of the pouch belts.

#### *Saddle.*

The latest pattern cavalry saddle is a good one in many respects. It has, however, one disadvantage, *viz.*, that of weight. I cannot but think that it might be lightened a good deal. I apprehend that in all future campaigns the valise will rarely, if ever, be carried on the horse, but will be carried with the tents, the soldier being able to carry in his wallets all that he would require till tents could be brought up.

If employed in reconnoitring duties a considerable distance to the front, the soldier will rarely have time or opportunity to change his clothes. Everything should then be sacrificed for lightness.

Could it once be definitely settled that the kit now carried in the valise be carried in a bag or case with the tents and baggage, I am confident that the weight of the saddle might be materially diminished.

#### *Cruppers.*

Anyhow I would be glad to see cruppers dispensed with. I have for many years doubted the utility of the crupper. Should it be sufficiently tight to be of any use in retaining the saddle in its proper place, it is pretty nearly certain to produce a sore under the horse's tail. I have seen the experiment repeatedly tried of leaving off cruppers as a temporary measure, and with great success.

In England, where by far the majority of the cavalry are mounted on mares, the abolition of the crupper would, I am certain, be hailed as an immense boon. I have seen scores of horses that were most unruly and troublesome in the ranks go perfectly quietly as soon as the crupper was removed. Our forefathers, I believe, used cruppers in the hunting field, presuming, I suppose, they were of some use. Such a thing now is never even *seen* in the hunting field, or anywhere else; and I do not see why the cavalry should still be compelled to wear so useless and unseemly an appendage to their saddlery.

#### *Breast-plate.*

With the breast-plate it is different. With some horses it is a necessary evil.

With some light middled horses, and even with some others when in very low condition, on ascending a hill the saddle would slip right back over their tails, if it were not for the breast-plate. But surely it is not necessary for every horse to be compelled to wear one?



There are unfortunately many horses in our ranks whose shape and action are such as to render a breast-plate a very unnecessary appendage to their saddlery.

I would therefore recommend that breast-plates be only worn by those horses who absolutely require them. A few spare ones could always be carried among the troop stores.

#### *Girths.*

In the same way with girths, there are many horses who invariably gall with the regulation girth. Many troop officers provide others for them at their own expense, adopting in many cases a girth known as the "Cape girth." I would most urgently recommend that a little more latitude be granted to commanding and troop officers in this respect, and that there should be girths of the description mentioned or even web girths supplied on indent to those horses whose natural configuration renders the regulation girth almost useless.

I should, however, like to see the girth known as the Cape girth generally supplied. I have used them for years, and have found them answer when all others had failed. The great merit of them is that they need never be drawn as *tight* as other girths. The evils of drawing the girths too tight are so well known to every one who has ever studied the subject, that it is unnecessary to dwell upon that unfortunately too frequent an abuse. So firm a believer am I in the efficacy of these Cape girths (as shown in drawing), that I am convinced if the saddle-tree is properly fitted to the horse, and this description of girth used, both crupper and breast-plate might be altogether dispensed with.

I particularly mention the SADDLE-TREE, as in the fitting of that lies the whole secret of fitting a saddle.

#### *Bridle.*

The bridle also is good in pattern, but might be lightened. The reins frequently are unnecessarily thick; and the bit might be made tighter and narrower.

#### *Pegs, head and heel ropes.*

Pegs should be made of iron. Wooden ones are soon broken on hard ground, and in some countries, like Afghanistan for instance, they are not easy to replace.

Head and heel ropes are frequently issued of an unnecessary length.

The 10th Hussars found during the campaign in Afghanistan that the head collars broke so repeatedly, that they adopted the plan of picquetting their horses by one foreleg to an iron peg 18 inches long, weighing 2 lbs. 7 oz. Two feet of rope from the foreleg to the peg was quite sufficient play.

The rope was tied round the leg just above the horse's foot with a knot that would not slip or jam; and this plan of picquetting was found to be the only successful one where the soil was sandy.

One hind-leg was fastened by the ordinary heel rope to an iron peg of same weight and dimensions as that to which the foreleg was secured; 6 feet of rope is sufficient for this.

I may add that no shackles, except in very few cases, were used to the foreleg; and yet the rope never appeared to gall or rub the horse's pastern.

#### *Blanket.*

It was found necessary also to carry one blanket on the horse.

The blanket was divided in half—in fact making two light blankets of it.

One-half was folded in four and placed under the saddle; the other half was folded behind the saddle, and the iron pegs secured to the top by the baggage straps. This plan was found to answer admirably; and I would strongly urge its general adoption, as, putting aside the desirability of always having a blanket at hand for the use of either man or horse, it will be the means of avoiding many a gall, which is so likely to occur in service, when horses have to be saddled, if not mounted, for so many hours.

#### *Water-bottles.*

There can be no doubt about water-bottles now issued to cavalry being a failure. They are too cumbersome; and are so easily damaged, that they soon become unserviceable. Unless they are slung so high under the arm so as to be uncomfortable to the soldier, the bottom of the bottle (glass inside leather) comes in contact with the hilt of the sword or butt of the carbine, and cracks. The water-bottle I would strongly recommend is made of *ebonite*, covered with felt or *numnah*. This is light, keeps water cool longer than any other sort, and is broken only with great difficulty. The original cost, 8s., makes it expensive; but were the whole of the troops to be provided with them, they could be made much cheaper, and would certainly prove cheaper in the end than the present pattern. They should be hollowed to fit the body.

#### *Havresack.*

The havresack at present issued might be much improved. I would recommend for all branches, but certainly for cavalry, a different pattern. The havresack should be shallower than the present pattern, with a division or extra flap to be made of some water-proof material, and strapped with leather at bottom and corners.

There should be loops or buckles at each end of top of havresack, so that it could be carried on the horse as easily as on the man's body.

#### *Tents.*

In the Cabul campaign the whole of the army was provided with tents of the sepoy pattern.

These were difficult to pack on mules, cold in winter and hot in summer. I would propose for service a tent of proportions shown in accompanying sketch.

Each tent holds a non-commissioned officer and three men or four men with their kits and saddles. The rear side unlaces, and can be removed so that any number could be laced together if required. The outer fly reaches to the ground; and in severe weather would afford shelter to troop syces, thereby doing away with the necessity of tents for them.

These tents being small, could be pitched in rear of the horses like the Native sowars' tents. The rear side of the tent affording protection for saddlery, it does away with the necessity of paulins for saddlery, whilst the actual weight of the tent is very little more per man than the sepoy pâl.

The weight of the sepoy pâl is at least 500 lbs., roughly speaking.

18 sepoy pâls	...	...	...	9,000	regiment on service), you would require, at the allowance of 22 men to a tent, a total weight of tentage of 9,000 lbs. To this you must add guard tent 500 lbs., and paulins for saddlery, which would at least come to 250 lbs. per troop; and that is very much under the weight. This increases the weight of tentage to 11,000 lbs.
1 guard tent	...	...	...	500	
6 paulins, at 250	...	...	...	1,500	
				<u>11,000</u>	

The tent I propose would weigh 100 lbs.

To cover the same number of men with 400 of these tents, you would require a weight of tentage of only 10,800 lbs.

That includes 600 lbs. for tents for guard purposes, &c.; and it is very questionable whether these would really be required.

The allowance of 5 per cent. for sick would be sufficient to give the extra accommodation required for guard, &c., as each troop would be easily able to afford one of these tents for guard purposes. These might be ranged side by side, or laced together, at the discretion of the commanding officer. These tents would be warmer in winter and cooler in summer than the ordinary sepoy pâl. They are more easily pitched and are easily packed on mules.

The men have their saddlery at their heads, ready to turn out at a moment's notice; and in them the comfort of the men is materially increased.

They have also the great advantage of being perfectly water-tight.

I do not mean to say that I would suggest their use in the plains of India in the hot weather; but I have no hesitation in saying that they would afford much more protection than the sepoy pâl tent, in whatever climate they might be used.

In the sketches attached to this paragraph, numbered plates 1, 2, 3 and 4—

Plate 1 represents the side-view of tent pitched complete with outer fly.

Plate 2 shows dimensions of tent.

Plate 3 ground plan of tent; kit bags to form pillow with blankets and water-proof sheet; saddles at head of each bed with long boots by the side.

Plate 4 shows front elevation.

These tents should be made of drill; the inner fly double cloth lined with blanket.

Two pockets on each side of tent above the wall. Walls to roll up all round and fasten with loops and wooden buttons at AA during the day. The poles of the tent are each 8 feet long, jointed in the centre with a slide to secure the ends of joints. This enables them to be packed with greater ease on mules and ponies.

#### *Cooking-pots.*

The cooking-pots (degchies at present) used by European regiments are much too large and cumbersome for service. They are very heavy and difficult to pack.

I would suggest a Warren's cooking-pot for every four men. Round, size 9 inches diameter, weight 4 lbs. without small canisters inside.

Inside the pot can be fitted small tins to contain pepper, salt, tea, &c. One of these tins might be perforated with holes. This tin being filled with tea and immersed in boiling water, would make tea of a better description than that at present used by the troops, which is all boiled in one large pot or degchie. These small tins having flat tops, would be constructed so as to fill half the depth of the inner pot of Warren's cooking-pot. The remaining half might be left for any rations that had not been consumed.

The economy of Warren's cooking-pots is very great. The size proposed ostensibly for four men will cook in reality for six or more.

Should the tent of the pattern described in preceding paragraph be adopted, the troops could be broken up into messes of four; and for this the Warren's cooking-pot would be found most convenient.

The present weight allowed for a troop or company's cooking-pots is 250 lbs.; making 1,500 lbs. for a cavalry regiment of 400 men. The weight of a Warren's cooking-pot is 4 lbs.; add to this 1 lb. for the small tins to fit inside.

This at the rate of one to every four men would give a total weight of 500 lbs.; of cooking utensils for the regiment, thereby saving 1,000 lbs. weight for carriage, and giving also much more comfort to the men, small messes being always better cooked than very large ones. Anyhow, should it be deemed preferable to adhere to the present system, I would most strongly urge that the Indian copper degchie be abolished, and that cooking-pots of block tin be adopted, being very much lighter than copper and not requiring to be constantly tinned, which is often a matter of great difficulty on service.

Captain T. S. A. Mackenzie, 9th  
Lancers.

With the present equipment a lancer is overarmed. I would suggest that a certain percentage of men should carry the carbine, say 64 carbines per regiment, and not arm the whole regiment with carbines as at present. I would also suggest that steel shoulder-straps be worn in place of the present shoulder-cords; also that the material for the men's pantaloons should be of some elastic material, say, Bedford cord. It would no doubt be more expensive than the present pantaloons; but it would last twice as long, and enable the cavalry soldier to have much more freedom, mounted and dismounted.

Captain B. A. Combe, 10th  
Royal Hussars, and Deputy Assistant  
Quarter-Master-General.

A practical answer to this question is what took place lately when regiments were ordered on field service.

Taking my own regiment, 10th Royal Hussars, as an instance, we changed or discarded almost everything regulation—

Stable jackets and valises were discarded and left behind.

Tunics were only taken as an article of extra clothing, to be worn under the blouse when necessary. An extra flannel shirt or cardigan waistcoat would have been a better substitute.

A blue serge or khaki blouse was invariably worn, as being the most comfortable and serviceable, admitting of free use of the arms, and of as much or as little underclothing as might be necessary.

The steel scabbards were changed for wooden ones, the swords belts altered, long slings abolished, and a sort of "Sam Browne" belt improvised; sabretaches were discarded.

The Government pouches were found unsuitable for carriage of loose rounds of ball ammunition, ten rounds of which were carried in pockets of five compartments each, sewn on the breast of the blouse.

In addition to the long boots, every man was served out with a pair of *puttees*, or cloth bandages for leggings, which, with pantaloons and highlows or ammunition boots, formed the best dress for hill climbing and dismounted duties.

There must always be a full or "show" dress for parades, escort duty, &c., &c.; but the working or fighting dress should be plain and serviceable, so that all these changes, on being ordered on service, would be obviated. Some generals would object to Her Majesty's Dress Regulations being ignored even on service, and the consequence would be that the efficiency of a regiment so restricted to dress regulation would be much impaired.

10. Would you recommend the issue of a serviceable suit of clothing made of a cheap and durable material to be worn on service in the field, instead of the present uniform?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

Most decidedly. The color of the present clothing is too dark, and the clothing itself too thick and warm. Nobody going out into the jungles would think of wearing anything like our present uniform, either in color or texture.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

Yes; but I fear a cheap suit would not be economy.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

Unquestionably; the khaki jackets were found universally useful and serviceable during the late campaign. It is fit for wear in all weathers and seasons, and is a great saving to the uniform of the soldiers. Alone it is insufficient, however, in cold weather, but admits of thick underclothing.

I should never recommend cavalry to be served with any sort of khaki or other service dress without a strong broad leather waist-belt.

Lieutenant-Colonel J. C. Le-  
Queene, 12th Lancers.

No; if the present uniform is unsuitable, cast it; if it be good, it should be sufficient. If you provide a fanciful suit, it will either remain in store and spoil, or the men having it are sure to wear it and interfere with uniformity.

Lieutenant-Colonel H. S. Butler,  
18th Hussars.

Most certainly loose and with plenty of pockets.

Lieutenant-Colonel G. Luck,  
Commanding 16th Hussars.

I would recommend the issue of yarn-dyed *khaki* to be made up regimentally into service suits, to be worn either over the uniform or instead of it. Coats and helmet covers would only be required for the mounted branches.

Major J. W. Chaplin, 8th  
Hussars.

I would certainly recommend this, if the material was sufficiently good and suitable for the season of the year in which the troops are likely to be engaged.

Major E. A. Wood, 10th Hussars.

Most undoubtedly khaki serge blouse or Norfolk jackets, and cotton cord (corduroy) trousers or pantaloons for all branches of the service; in fact, a complete service kit independently of the ordinary kit to be always in possession of the soldier, and to be shown at all inspections of necessaries.

The ordinary kit to be taken into store as soon as the regiment receives orders to hold itself in readiness for active service.

Captain T. S. A. Mackenzie, 9th  
Lancers.

Yes; a loose, drab-colored serge coat or jacket, and pantaloons of the same color, but of an elastic material.

Captain B. A. Combe, 10th  
Royal Hussars, and Deputy As-  
sistant Quarter-Master General.

If by this, a "special issue" is meant, to be made when a regiment is warned for service, no; but the *ordinary* working dress should be of a cheap and durable material, so that a regiment could take the field at any moment with a "serviceable" suit.

11. Can you suggest any economy in such matters as lighting of barracks, punkha-pulling, barrack furniture, bedding, &c., or in any other item of supply ?

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

Speaking for this station, Mhow, the men of my regiment say they do not care for the punkhas in the barrack-rooms. I cannot suggest any economy in these matters. Perhaps a cheaper oil might be used in lighting.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

The bedding might be improved by supplying a coir mattress instead of the present one. I do not think there could be any improvement made in the other items of supply.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

*Lighting barracks.*—Introduction of kerosine oil; Native oil is a failure, and gives no light; and the supply of gas is very costly in the original outlay, and uncertain when in use.

*Punkha-pulling.*—No economy is practicable in this matter short of abolition of punkhas, the scale being already reduced beneath the requirements for efficient action.

I do not believe that machinery for this purpose would answer.

*Bedding.*—No economy is practicable. The present pattern of grass-filled mattresses combines the requirements of cleanliness, economy, and safety from infection.

Lieutenant-Colonel J. C. Le-  
Queuse, 12th Lancers.

The present lighting of barracks is extremely bad, and only a dim flicker illumines a room. To me it appears the only economy that could be displayed would be to give none at all. Punkha-pulling by day might in some stations (to wit this) be dispensed with.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

Not at the present moment.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

Station boards generally decide the number of lights required for each barrack-room, and are liberal in their recommendations.

Punkha establishments are reduced as low as possible.

No reductions can be made in the barrack furniture; but I think that the highly-paid barrack-master, in some cases a lieutenant-colonel in the army, might be dispensed with, and his work efficiently performed by a warrant officer, acting under the orders of the quartermaster-general of the division or district.

Bedding should be issued to the soldier when required, not, as at present, at stated intervals. Government is too liberal in this matter.

As regards other articles of supply, I think that immense reductions can be made in all articles supplied by the public works and commissariat departments. The prices paid by these departments are perfectly absurd when compared with the current bazaar rates for work done or articles supplied. At Meerut I can buy at a much cheaper rate far better articles than those supplied by the commissariat; and this not only at one season, but throughout the whole year; and I can get work equally well done as that performed by the public works department and at a much cheaper rate.

Every soldier, no matter what his rank, who has served any time in India knows that the great expense of the British army in this country is caused by these two overgrown departments; and that it is to them that the attention of the economist should be directed, not to the combatant branches.

Major J. W. Chaplin, 8th  
Hussars.

I can suggest no economy in lighting of barracks, and certainly not in punkha-pulling, at least from what has come under my own observation.

Nor also in barrack furniture and bedding; and I think all the items of supply are necessary.

Major E. A. Wood, 10th Hussars.

I think in some stations, especially in Central India and in the North-Western Provinces, the allowance of oil for lighting the barracks during the hot-weather months only might be curtailed, for this reason:—

The number of lights that are required to light the barracks properly make the rooms so hot, that the men would rather (and generally do) deprive themselves of the proper quantity of light sooner than incur the extra heat caused by the number of oil-lamps.

As regards punkha-pulling, the punkhas in most barracks are so heavy, that it requires a considerable amount of strength to pull them properly.

I do not think that either the State or the soldier are well served by the system of contract for punkha-coolies.

The manual labor is by the system of contract reduced to the utmost strength of the punkha-coolies.

Many of these are not able-bodied men. Thefts frequently occur during the time that the punkha-coolies are employed; and I believe that much cost might be saved to the State if some *mechanical means* might be introduced, so as to avoid the employment of punkha-coolies.

This might be accomplished in favorable stations by hydraulic machinery, and in others by steam-power, both of which might be used with advantage for gram-grinding, pumping water, and various other uses; but under the present system the punkhas are so badly and unevenly worked, that I think they are hardly worth their enormous cost.

Captain T. S. A. Mackenzie, 9th Lancers.

The bedding might be improved by substituting a coil mattress in place of the straw palliasses now issued. It would be more comfortable for the soldier, particularly in the hot weather; and in the long run more economical than straw, which has to be changed every three months.

12. Could not petty barrack repairs and maintenance of barrack furniture, &c., be provided regimentally by fixing a maximum allowance within which the officer commanding might sanction expenditure?

Lieutenant-Colonel R. Blundell, 3rd Hussars.

No; because no commanding officer could keep his barrack-rooms and furniture in proper repair for the sum that the Government would sanction.

Lieutenant-Colonel R. S. Cleland, 9th (Queen's Royal) Lancers.

It could not be carried out in a cavalry regiment, where every man is engaged with his professional duties, particularly in a lancer regiment, which is armed now with three different weapons; so that I think the present system could not be improved on.

Lieutenant-Colonel Lord R. D. Kerr, Commanding 10th Hussars.

Possibly in infantry regiments, where the provision of useful occupation for the men is much to be desired; but not in cavalry.

There are already far too many departments in cavalry regiments requiring constant supervision; and neither non-commissioned officers nor men could be spared from their regular duties. Moreover, a regiment cannot command the market, or buy independently of local fluctuations in the timber trade, as the department like the commissariat is able to do.

Lieutenant-Colonel J. G. Le Quesne, 12th Lancers.

Yes; I think so. It would save correspondence. There is talent and working-power in regiments. It would promote industry and give occupation.

Lieutenant-Colonel H. S. Butler, 13th Hussars.

I think something might be done in this way; but the commanding officer has enough to do without undertaking further responsibilities.

Lieutenant-Colonel G. Luck, Commanding 15th Hussars.

It might; but there are few commanding officers who would care to undertake a duty which would constantly bring them into conflict with the public works department.

Major J. W. Chaplin, 8th Hussars.

This I should consider desirable, particularly in small stations, where there is no resident engineer officer. If adopted, the commanding officer, who is the best judge of what repairs or works are most essential, could then have them carried out at once; whereas, under the present system, a considerable time is often taken up in correspondence before a repair—which, although perhaps small, is of some importance (for instance, a repair to a roof of a hospital)—can be carried out.

Major E. A. Wood, 10th Hussars.

I think that few commanding officers would have the requisite knowledge for this work. There is no fixed time for any regiment to occupy a station; so there would always be a difficulty of valuation of barrack furniture, &c.; when regiments relieved each other; added to which I consider it very unfair to add to the list of the numerous and very onerous duties and responsibilities of a commanding officer by making him a Government contractor.

Captain T. S. A. Mackenzie, 9th Lancers.

If it is meant that these repairs are to be carried out by the men of the regiment, it would be quite impossible in a cavalry regiment, more so in a lancer one, carrying sword, lance, and carbine. The non-commissioned officers and men, when not employed at stable duties, are required to be at drill to obtain and maintain any degree of efficiency in the use of so many weapons, as well as the additional duties, such as fencing, gymnastics, telegraphy, map-reading. Therefore, a staff of Native workmen would have to be entertained, both to supervise and execute repairs to barracks and barrack furniture, which, in my opinion, would be a difficult matter for a commanding officer to carry out if a fixed sum was allowed.

13. Are you satisfied with the arrangements for the supply of grain for the horses of your regiment? Would it not be more economical, and at the same time improve the horses' ration, to attach a mill to each regiment for the purpose of crushing and mixing the grain now issued?

Lieutenant-Colonel R. Blandell,  
3rd Hussars.

I am satisfied with them.

It very likely would improve the grinding and mixing of the grain, but I don't think that it would be more economical than the present arrangement. If the grindstones are good, large ones, the grain is quite sufficiently crushed by them.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

The arrangements for the supply of grain for the horses of the regiment are quite satisfactory. The grain supplied is always of very fair quality, and always obtainable when wanted. A mill attached to each regiment for crushing the grain would be a great gain in several ways. In the first place, it would be cheaper; in the second, the grain would be much better ground; and third, less time would be taken in grinding.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

Yes, by dealing regularly with a gomashita, a better description of grain and fresher supply is secured.

In barracks economy to Government would certainly be secured; but on the march or on detachment the necessity for private troop grain-grinding arrangements would still remain.

Lieutenant-Colonel J. C. Le-  
Quesne, 12th Lancers.

During the past few months I get the boiled grain, which has much the result of beans at home.

Possibly a mill would get the work done quicker, and much less manual labor than now. Such an advantage.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

Not thoroughly. Squabbles have occurred with the commissariat.

Quite satisfied, if what is absolutely necessary is granted without argument.

Once there was trouble about barley, which our horses could not digest. After endless trouble, it was discovered that the barley in different districts, though similar in appearance, may be entirely different in quality.

A machine, most certainly not. Was tried in 4th Hussars in 1868, and failed lamentably.

Major J. W. Chaplin, 8th  
Hussars.

In stations where there is a control officer to check the Native contractor, I consider that the present arrangements for the supply of grain, bran, & ., works well. As regards a mill, there is no doubt that a ration is improved by being crushed; but I almost think a small grinding-stone worked by Native women for each troop is quite as serviceable and quite as economical.

Major E. A. Wood, 10th Hussars.

Commanding officers should have more discretionary power as to the forage (grain) required for their horses. At present a change of grain requires a very unnecessary amount of time and correspondence. I think it would be more economical, and would also improve the horses' ration, if a mill was supplied to each regiment for the purpose of crushing the grain, and the grain should also be soaked regimentally and not by troops: tubs or large iron receptacles to be furnished by the Government for that purpose.

But on service either small machines must be issued to regiments, or the commissariat would have to issue the grain ground.

Captain T. S. A. Mackenzie, 9th  
Lancers.

I am satisfied that the commissariat department should continue to supply grain to the regiment. It would be more economical to attach a mill to each regiment capable of grinding or crushing the whole of the grain for the regiment than to continue the present system of one mill for each troop; and I think it would certainly improve the horses' ration especially the barley.

Special provision, however, would have to be made for the carriage of the mill on the line of march, so that it would arrive in camp as soon as the regiment. The present troop mills were carried on the grass-cutters' ponies in Afghanistan, and were always up in good time, so that the grain which was issued on arrival was crushed and ready for the horses by feed time.

Lieutenant-Colonel G. Luck,  
Commanding 15th Hussars.

I am satisfied with the arrangements for the supply of grain for the horses of my regiment, so far as the quality of the grain tendered for issue is concerned; but I consider that the same ration should not be given all the year round, and that commanding officers should be allowed to vary it whenever they wished. During the hot weather, or at other seasons, when horses are doing gentle work, a ration of bran of at least 2lbs. a day in lieu of the same quantity of grain should be issued; and

the occasional change of feed from gram to oats would be very beneficial. Barley, unless ground to a powder, is highly objectionable.

If a crushing mill were attached to each regiment, barley might occasionally be issued as rations during the hot weather; but I do not consider it good food for hard work. No sportsman would ever think of giving it to a pigsticker, hunter, or polo pony if gram or oats were procurable.

14. Are you of opinion that the arrangements for the supply of fodder to cavalry horses are as perfect as they can be? Would it be possible in time of peace to dispense with grass-cutters and obtain fodder by contract?

Lieutenant-Colonel R. Blundell,  
8th Hussars.

I cannot suggest any better ones.

Yes, I should say it would; though I doubt whether, when the grass-cutters were contractors' servants, they would be allowed to collect the grass as they now do. It is certainly worth the trial. If the grass-cutters are once done away with, we shall have, under all circumstances, to rely on contractors.

In the Bombay presidency the grass-cutters only bring in the green grass, part of the grass ration. The dry grass is now bought from a contractor.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

After crossing the frontier only a few of the horses not provided with grass-cutters were supplied with fodder, which was, as a rule, of the most inferior quality. At Jamrud it was often so bad, that the horses would not touch it; and it was scarcely fit for issue for bedding. Frequently, too, there was a delay in obtaining it. It is possible to do without grass-cutters and obtain fodder by contract, but most certainly not advisable. At present, if good grass is to be obtained in the neighbourhood, the grass-cutters can always be made to bring it in.

Lieutenant-Colonel Lord E. D. Kerr,  
Commanding 10th Hussars.

Yes. If economy to Government is the sole object, it is certain that the saving would be very great if the rukhs were given over to the commissariat. On the other hand, the maintenance of a train of Native servants is in many ways an economy. Very many works are by them done regimentally (and that daily) which would in their absence fall as a charge on public works or other departments. The work is done by them efficiently and cheaply in a day, which without their aid would entail correspondence, delay, committees, maps, and tracings, an enormous estimate, and possibly deferred in the end for a year for want of funds.

By keeping up an establishment of grass-cutters, the corps is always ready to move into the district on immediate service. It is most important that cavalry should be kept in an independent condition, and fit to work in troubled or hostile districts where the commissariat and civil authorities cannot command supplies.

Lieutenant-Colonel J. C. Le-  
Queune, 12th Lancers.

I have frequently considered this, and acknowledge that in quarters it would. But grass-cutters (like every other working body) would otherwise employ themselves, and, when need arose, would be ungettable.

Lieutenant-Colonel H. S. Butler,  
13th Hussars.

I cannot say. Localities differ; customs differ; Natives differ exceedingly among themselves.

Possibly, in some places; not in most places that I have become acquainted with.

Lieutenant-Colonel G. Luck,  
Commanding 16th Hussars.

I think that arrangements would be better if certain portions of ground near cantonments were allotted on which grass-cutters might cut grass. Under the present system the grass-cutters are constantly coming into collision with villagers, who naturally object to having their grass removed without receiving any payment.

I do not think it would be at all advisable to dispense with the grass-cutters, as I propose to utilize the pony for baggage purposes: *vide* memorandum annexed.\*

\* See appendix No. XXIX.

Major J. W. Chaplin, 8th  
Hussars.

I can hardly see how the grass could be better supplied than by the grass-cutters; and although of course, in time of peace, the grass could be supplied by a contractor, yet, on a sudden move of the regiment, it would be extremely difficult to organize an efficient body of grass-cutters and their ponies at a moment's notice.

Major E. A. Wood, 10th Hussars.

No; I would have all *double* grass-cutters paid not less than Rs. 5 per month in the Punjab, mules or ponies bought and sustained by the

State. These animals would then form part of the regimental baggage-animals on the line of march.

I think both the State and the regiment would be very badly served if grass-cutters were abolished in times of peace and fodder supplied by contract.

The grass-cutter does more work and brings in more grass than any contract system could supply during times of peace.

It is a fact, and it has been more than once represented to Government, that the grass-cutters in the Punjab are working for the State at a lower rate of pay than the value of coolie labor.

Captain T. S. A. Mackenzie, 9th Lancers.

I do not think the present arrangements could be improved on. It would certainly be possible; but I do not recommend that grass-cutters should be dispensed with, as grass by contract would never be so good or plentiful as that brought in by grass-cutters. I would mention that the State is at no extra expense for bedding; and this is found by the grass-cutters.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

In cantonments, in time of peace, it would certainly be possible, probably profitable, to dispense with grass-cutters and get the grass cut in the Government rukhs, and carried in by the moveable column camels and elephants; but a regiment ordered to march, in course of relief, or broken up into detachments in cholera camps, would be dependent on supplies obtained and stacked by the local civil authorities, and the movements of detachments in cholera camps would be much hampered and restricted by the necessity of giving timely notice of a move; whilst, if suddenly ordered on service, the old system would have to be reverted to, of grass-cutters, whom it would be difficult to entertain for the occasion.

15. Are the grass-cutters absolutely essential on a march? And during the late campaign in Afghanistan did the grass-cutters bring in a sufficient supply of grass, or only when there was a halt of a day or two?

Lieutenant-Colonel R. Blundell, 3rd Hussars.

Certainly not in time of peace, when, as in this (Bombay) presidency dry grass and grain are carried by the commissariat to each encamping-ground, or at any rate supplied there.

I cannot answer the second part of the question.

Lieutenant-Colonel R. S. Cleland, 9th (Queen's Royal) Lancers.

Yes, in India, unless the commissariat will carry it. As the Khyber was bare rocks, the grass-cutters were often unable to obtain any; and as the 9th Lancers only marched to Basawal, my experience is *nil*.

Lieutenant-Colonel Lord R. D. Kerr, Commanding 10th Hussars.

No, not in peace time; but in disturbed districts I do not see any way of ensuring supply of fodder without them. Nor would so cumbersome a following have been originally established to a mounted corps without strong reason.

Not in the dry season. The country was arid and desert; but once the rain set in, grass of the best description was daily brought in plentifully, march or no march, excepting always in districts such as the Khyber pass.

Lieutenant-Colonel H. S. Butler, 13th Hussars.

Absolutely in the North-Western Provinces I should say. I do not know.

Lieutenant-Colonel G. Luck, Commanding 15th Hussars.

I consider the grass-cutter and pony as absolutely essential to a cavalry regiment.

In Afghanistan the ponies of the 15th Hussars were of the greatest use. The last to leave camp, all spare articles were piled on them: picking up the loads of camels that died on the road, they passed all the other baggage-animals on the march, and were the first to arrive at the new camping-ground. Their loads being removed, they were immediately sent under an escort to bring in bhoosa or any grass that might be in the neighbourhood, returning generally after nightfall to stand shivering at their pickets with scanty food and no clothing, waiting to repeat the same programme on the following day. It was not till late in the campaign that an allowance of grain was issued to the ponies attached to the Kandahar column.

Major J. W. Chaplin, 8th Hussars.

I consider grass-cutters to be most essential on a march. No experience of Afghanistan.

Major E. A. Wood, 10th Hussars.

The grass-cutters are absolutely essential on a march. Unless they are in immediate vicinity of an enemy, they would be able to go out after a march and bring in a certain amount of grass, provided there was grass within a radius of three miles of the camp.



During the campaign in Afghanistan there might have been difficulties, from political reasons, which prevented the grass-cutters bringing in their proper quantity of grass, as they never were allowed to leave camp without an escort. In spite of every disadvantage to the grass-cutter, they brought in grass to an extent that it would, in my opinion, have been difficult to surpass by any other arrangement.

Captain T. S. A. Mackenzie, 9th Lancers.

Yes, in India. As a rule, they did bring in a sufficient supply of grass when marching in Afghanistan. Sometimes it was a little difficult to do so when it was not known where to go for; and it was a heavy tax on a regiment after marching in to find an escort for the grass-cutters.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

Grass-cutters are not absolutely essential on a march in peace time, when timely notice can be given to the civil authorities to lay on supplies of grass at each camping-ground; but on service, I should say, they were indispensable.

In Afghanistan, even after a long march, they always managed to bring in more or less grass, without which the horses would have fared very badly.

16. What do you consider to be the results of experience in the working of the medical and hospital system as practised generally in India, and during the recent operations in Afghanistan.

Lieutenant-Colonel R. S. Cleland, 9th (Queen's Royal) Lancers.

In India the working of the medical and hospital system is good, it being regimental. It appears to me that the servants and cooks are very inferior for so important a duty as they are called on to perform. A hospital orderly was formerly allowed to assist with the worst cases of illness and help generally; but he was discontinued by general orders.

In Afghanistan the sick were not treated regimentally, but sent to field and base hospitals. There was no opportunity of testing the advantage of such a system; but I am of opinion that for the benefit of any regiment it is better to keep sick under regimental arrangements.

Lieutenant-Colonel Lord R. D. Kerr, Commanding 10th Hussars.

Theoretically good. Result, during the late operations collapsed whenever a strain was put upon it (as during the advance from Peshawar and the march back to India), from want of sufficient staff of surgeons, want of previous knowledge on their part of the duties allotted to each, and of the practical working of the system, and an utter want of organization of attendants. A trained army hospital corps is a necessity; and for mounted corps, liable to be detached and kept on out-duties, an efficient system of moveable field hospitals is absolutely necessary. After the action at Futehabad the wounded had to be sent seventeen miles to the nearest field hospital where they could be adequately attended to.

During the advance, the field hospital being at Ali Musjid, the 10th Hussars were at Basawal, upwards of thirty miles off, with a regimental hospital, so-called it is true, but without any provision for probable necessities, no stores, medicines, no cooking-pots, beds, &c., for sick, nor common necessaries. Had the enemy stood to his ground, a shameful tale would have gone home of how the sick were cared for. Economy in the arrangements for sick and wounded, had we been called on to do hard fighting, would have caused disaster to the army, all the more deplorable in that it was needless. A regimental hospital should be always maintained, especially in mounted corps, on a scale adequate to any strain which may be put upon it. On our return from Gundamak it was well known that the 10th was about to march through a cholera district. We were short of surgeons, of transport for the sick, and, worst of all, of medicines and necessary appliances.

Lieutenant-Colonel J. C. Le-Queno, 12th Lancers.

I have always favored the old regimental medical system. Then the doctor knew his men; they him; and he was a working institution.

Lieutenant-Colonel H. S. Butler, 13th Hussars.

Most excellent in my own regiment, but no doubt very expensive. In other regiments it is hard to ascertain, but at times I have had my doubts.

Lieutenant-Colonel G. Luck, Commanding 15th Hussars.

The regimental system as practised in India works well, and is far preferable to any other.

The general hospital system is hated by both men and officers, who naturally prefer to be treated by a medical man that they know and trust than to be at the mercy of an utter stranger, who has no interest in them or in their regiment.

The 15th Hussars were remarkably healthy during the Afghan campaign, and very few men had to be transferred to the field hospital. The new system therefore, as far as my regiment was concerned, was not put to any test.

Major J. W. Chaplin, 8th Hussars.

The medical and hospital systems at present in operation in India are such as I approve of—namely, the modified regimental system. It is necessary, however, that there should be three medical officers doing duty with a cavalry regiment. No experience of Afghanistan.

Major E. A. Wood, 10th Hussars.

As generally practised in India under the new system, it would be hard to give an opinion, as it has not yet had a fair chance; but I think there is a lamentable want of discipline among junior members of the medical profession, and even amongst some of the seniors.

In the Khyber column the operations were so limited, that it hardly showed up how utterly unfitted were the hospital and medical arrangements for anything like a light field hospital to accompany an advanced guard of an army of any strength.

On the few occasions that the regiment under my command formed, as it were, a part of the advanced guard of the column, the medical arrangements were far from being satisfactory. Luckily they were not much required.

Captain T. S. A. Mackenzie, 9th Lancers.

The medical system up to the present time in the regiment under my command has very nearly approached that of regimental medical officers, the surgeon-major and one surgeon having been four years with the regiment. I am of opinion that a permanent medical staff is of immense importance to a regiment. I am of opinion that the hospital system as practised in India is very good, it being the regimental system, which undoubtedly contributes to the greater efficiency of a regiment, and the welfare and comfort of the sick soldier. I am of opinion that the servants are the great blot in an Indian hospital. Coolies hired from the bazaar as required at Rs. 4 a month are the nurses of the sick. These men are ignorant, untrained, and dirty. Their caste prevents them attending to many of the most urgent wants of the sick. The cooks are very inferior, and without special training in cooking for the sick. The head-cook gets Rs. 6 a month and is about on a par with an ordinary troop cook. I am of opinion that there should be a corps of trained hospital servants, enlisted men, and subject to martial law. They should be of a low caste, to enable them to obey all the wants of the sick. During the recent operations in Afghanistan there was virtually no hospital or proper staff with the regiment. Slight cases requiring only a few hours' treatment were detained; all others were sent to the field or base hospitals. There was no strain to test the efficiency of this new system; but the men disliked it, and begged to be kept with the regiment.

A section of the field hospital from Lundi Kotal was stationed with the brigade; but had a force been detached for a week or two, I presume the section of the field hospital could not have accompanied it, or been further sub-divided, as it was fully occupied by the sick, and only had two medical officers with it. Extra tents had been applied for from regiments; so there must have been pressure for accommodation. In this strait what would have been done with the sick and wounded, dependent as they would have become on the very limited resources allowed to regiments?

The major part of the field hospital was two marches away with the rest of the division, and probably fully occupied; and the base hospital was five marches distant at Peshawar.

I am of opinion that a return in some measure, if not practicable in its entirety, to the regimental system in this country would be most advantageous. It had to be introduced as best it could be, immediately the force was broken up in Afghanistan, and found the regiment without its usual staff of medical officers, subordinates, servants, medicines, and tents for a considerable time, in a cholera track. The regiment had been too much denuded by the general hospital system.

Captain R. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

Commanding and medical officers will probably report so fully on this, that I will only say that the feeling of officers and men generally is most strongly in favor of the old regimental system, under which a medical officer knew, and was known by, all ranks; and I wish to bring to notice that no arrangements were made at the base, Peshawar, at the commencement of the recent campaign for the reception of sick or wounded officers who were refused admittance to the general or base hospital and referred to the hotel and dāk bungalow, both of which were probably (as in my own experience) full, and the sick officer left to shift for himself as he best could, and trust to the kindness of strangers to take him in.

17. State your views as to the efficiency of the arrangements in cantonments and on field service for the transport of the sick both in *personnel* and *matériel*; and give any practical suggestion which may occur to you as likely, if acted on, to improve efficiency or reduce expenditure.

Lieutenant-Colonel R. Blundell,  
3rd Hussars.

In cantonments they seem efficient. I have no other experience of them.

Lieutenant-Colonel R. S. Cleland,  
9th (Queen's Royal) Lancers.

I am of opinion that doolies and ambulances are sufficient in cantonments. The latter might be more used for suitable cases on the line of march in the plains and replace a proportion of doolies for field service. In suitable country ambulances might be used to a greater extent.

In Afghanistan the doolie-bearers supplied to the regiment were very inferior: many of them were sick, decrepit, and weak. The doolie, in my opinion, is too heavy for hill warfare. Properly trained mules with litters would suffice for many cases, and hill-chairs for others, with lying-down accommodation for the more serious cases.

Lieutenant-Colonel Lord R. D.  
Kerr, Commanding 10th Hussars.

In Indian warfare, where sick and wounded must necessarily be carried with the troops to avoid massacre, I see nothing to surpass the doolie for general use. True it is heavy and cumbersome; but lighter framework of equal strength might be introduced. There is always sufficiency of kahars to be obtained; and for conveyance of wounded it is preferable to the best ambulances, and can go on any ground.

Doolie-bearers should be drilled to their work; for it is an art like many other simple-looking things. They should also be provided with a uniform or distinguishing mark. The entertainment by the European garrison of this empire of as large a body of paid and pensioned Native followers, whether syces, grass-cutters, or kahars, is in my opinion of great importance for the maintenance of relations between the rulers and the people of India; and should be considered when the question of economy is moved.

Lieutenant-Colonel J. C. Le-  
Queune, 12th Lancers.

No knowledge.

Lieutenant-Colonel G. Luck,  
Commanding 15th (The King's)  
Hussars.

The arrangements in cantonments are satisfactory on field service, where carts cannot be used. The Hamilton doolie is the best for bad cases, and the Lushai for others. The *kajawahs* are useless in cavalry regiments, as they can only be utilized for foot-sore cases. The question of transport for sick in time of war is one that above all others requires immediate attention. If the doolie is to be retained—and I do not see what other mode of carriage can possibly be adopted in India—something ought to be done to have a reserve of doolie-bearers always ready for an emergency, particularly now that, owing to railroads, the race of doolie and bhanga bearers is gradually becoming extinct.

The manner in which Natives of the poorer classes were during the late campaign pressed as doolie-bearers was simply disgraceful. Most of those sent to my regiment had never carried a doolie, and their shoulders were not accustomed to carrying weights; so it was no wonder that long before the regiment crossed the frontier 200 out of 240 bearers had deserted, and a long halt had to be made to get their places filled up.

Major J. W. Chaplin, 8th  
Hussars.

From what I can gather, the arrangements for transport of sick in India are good.

Would it be advisable to train a few men per troop in stretcher drill?

The institution of a light regimental ambulance would be highly useful and economical.

Captain T. S. A. Mackenzie, 9th  
Lancers.

I am of opinion that the arrangements for the transport of sick in cantonments by ambulance and doolies are good. On the line of march in the plains, for slight and ordinary cases, a good ambulance, with strong commissariat bullocks, would enable many doolies to be dispensed with, and be more economical. Hired bullocks are unsuited. They break down, and the drivers desert with them during the night. During the late campaign in Afghanistan an immensity of trouble, extra labor, and expense was experienced owing to the wretched physique of the doolie-bearers. Many of them were old, weak, and diseased. The medical officer and apothecary had to superintend, feed, and house many of these undisciplined and ignorant coolies, which added very considerably to their own more important duties. On this head I think a change is necessary on service.

The doolie is heavy and cumbersome. Some lighter conveyance is needed, which might be carried by fewer bearers, if strong, healthy, and trained men.

In the cases of men slightly wounded or not seriously ill, properly trained mules, or camels, with suitable saddles, litters, or *kajiwahs*, might be used. I am also of opinion that ambulances might be more used in the plains.

Captain B. A. Combe, 10th Royal Hussars, and Deputy Assistant Quarter-Master-General.

In a cavalry regiment the squadron carts might be used as ambulance carts, for which they are well adapted; and in peace time the regimental sick might take air and exercise daily in these carts, horsed by troopers or the regimental draught horses, instead of in bullock carts as at present.

### C.

#### BRITISH INFANTRY.

1. Would it be advisable to raise the strength of British regiments in India to 1,000 rank and file, which is the English "war establishment"?

Colonel J. A. Ruddell, 1-25th Regiment.

I am of opinion that it would be extremely advisable to do so.

Colonel H. S. Cochrane, V.C., Commanding 43rd Light Infantry.

Certainly, this is necessary. So many men are away from a regiment in India at convalescent depôts and *en route* home, that when it is required for field service, about two-thirds only can be got under arms.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

I certainly think so. With the present strength, a regiment would soon be reduced to less than an efficient strength if exposed to much hardship, fighting, &c.; and regiments are now called upon to give such a large number of men for departmental purposes (we had 88 so employed last war).

Lieutenant-Colonel W. D. Tompson, Commanding 1-17th Foot.

I think it would be advisable, that is, if regiments in the field are in future to be called on to furnish to the same extent as heretofore orderlies, clerks, signallers, &c., and assistants to the commissariat, telegraph, medical, ecclesiastical, and other departments. In April last the strength of the 1-17th Regiment in India was within 88 of 1,000 rank and file; but the actual numbers present and available for field service never exceeded the limits of a handy battalion. The question, however, involves a consideration of the present barrack accommodation at the various stations, and the increase of the already excessive regimental married establishment, &c., &c.

Lieutenant-Colonel M. Macgregor, 1-18th Foot (The Royal Irish).

Yes; this would enable a battalion to march on service with about 880 rifles, and might reduce the number of British regiments required in India.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

I think so, certainly. The present establishment, weakened by invaliding to hill stations, convalescents awaiting invaliding to England, sick in hospital, and unavoidable garrison and regimental employments, is virtually always considerably below its reputed strength of 820 rank and file.

Lieutenant-Colonel A. G. Donbony, 7th Fusiliers.

Yes; nearly every consideration appears to me to point in favor of the stronger battalion.

The tactical unit (125 men per company) is not too strong; and, with the present staff, a battalion 1,000 strong can easily be commanded without undue friction.

On active service the number put in the field is not likely to exceed 800, which is certainly not too strong to commence a campaign with.

The economy of maintaining strong battalions would be considerable; for, roughly estimating the respective strengths at 1,000 and 800, four battalions would do the work of five, whereby the cost of the staff of the fifth battalion would be saved (about £13,000 a year).

The drawback to the large battalions is the increased separation which, in this country, would be likely to ensue (unless it should be found feasible to occupy fewer points with Europeans), whereby discipline and efficiency would be sure to suffer. But if the larger battalions should be decided on, I consider it very necessary that all officers of experience should be retained with the colors, and not used, as at present, to command the different invalid depôts, and fill various other posts.

Owing to the present short-service system, the quality of the non-commissioned officers and men is steadily deteriorating; and the presence of officers possessing experience is daily becoming more necessary.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

I am of opinion that, in consequence of the large number of sick men in hospital during the unhealthy season of the year in India, that it would be advisable to increase the strength of regiments of British infantry to 1,000 rank and file; but at the same time it should not be overlooked that if this proposal is carried out, a good deal of expense must necessarily be incurred for extra barrack accommodation.

Take, for example, the limited accommodation for a British infantry regiment at Umballa, one of the principal military stations in India, where, during the cold season, even one infantry regiment cannot be accommodated without making use of the verandahs for the men to sleep in, a proceeding invariably objected to by the doctors; and, moreover, at least two companies have sometimes during the cold season to be put up in tents, if the regiment is nearly up to its present Indian establishment.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

Efficiency combined with economy being the result sought for, and the number of company officers in the battalion being sufficient to administer and lead companies of a strength resulting from 1,000 rank and file being sub-divided into eight companies, I answer in the affirmative.

Lieutenant-Colonel R. Cuthbert,  
Commanding 2nd Battalion 15th Foot.

Yes; provided the establishment of officers was not reduced, as at present, by the employment of those who are the most efficient on staff and other non-regimental duties.

Lieutenant-Colonel G. W. Puget,  
Commanding 84th Regiment.

I am of opinion that regiments of British infantry in India should have a strength of 1,000 rank and file; for on active service one must allow quite one-third of total strength as casuals, *viz.*, "sick," "guards," "guard over sick," "guard over baggage," "guard over ammunition," "picquets," "regimental employ," &c. This would leave eight companies with about 36 file fit for duty under arms none too strong.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

Yes; but on active service in the field an extra officer per company would be absolutely necessary.

The present establishment of subalterns is insufficient, owing to the drain upon them for the staff corps.

Officers upon appointment should be called upon to state if it is their intention to enter the staff corps. Those who declare in the affirmative should be borne as supernumeraries and in excess of the establishment of the regiment to which appointed.

Lieutenant-Colonel T. W. Hughes,  
64th Regiment.

For peace duties I consider the present establishment of 820 rank and file sufficiently strong.

For a protracted campaign it would be very desirable to start with 1,000 rank and file; but taking the whole duty expected from a regiment of British infantry in peace and war in India, I think the present establishment judiciously fixed.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

I consider it would be very advisable; for with sick, absent and present, detachment duties, men on passage to or from England, a regiment is rarely up to its present establishment in India.

The 67th Regiment has at present 816 privates on the muster-roll. The India establishment is 780.

Of the 816, only 640 are present fit for duty at head-quarters; 50 remained in Madras when the regiment moved on service; 58 were left sick at various places *en route*, and not permitted to rejoin during the hot weather; 56 sick or convalescent at head-quarters; 4 on detachment; 8 in prison.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

I think not.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

Yes.—Operations in the field would invariably be commenced at the beginning of the cold season, when regiments are frequently reduced from sickness and other causes to mere skeleton regiments. By increasing the strength, it would enable a battalion to take the field (after deducting sick and men left with the *depôt*) sufficiently strong—a great consideration. It may not be out of place under this head to state that greater care should be taken in the selection of men for service in India.

At present when a battalion is ordered to India a fairly strict examination is made, and old soldiers who are partially broken down are left behind, but owing to the faulty system carried out in the selection of drafts for India, these men almost invariably are sent to join regiments during the course of a year or two. Recruits should also be more carefully examined as to age. The medical officer's opinion on this point should be final, as recruits on joining generally add a couple of years to their correct age.

Major H. P. Pearson, 12th Foot.

I do not see that anything would be gained by such a measure. A British regiment at its present full Indian strength is quite as much as

any man can command properly on parade or in the field. Such an increase would necessitate corresponding expansion in barrack accommodation, which means vast outlay. The alternative would be the division of corps into detachments, which is undesirable for many reasons.

Major J. H. Campbell, 33rd Regiment.

The strength of a regiment should depend in India in a great extent on the barrack accommodation. At this station there is not sufficient for a regiment 1,000 strong; and as it does not add either to the discipline or efficiency of a corps to have it broken into detachments, I consider it would not be advisable to increase the strength.

Major J. D. Dyson-Laurie, 34th Foot.

Provided that the 1,000 rank and file were divided into 10 companies. More than 100 rank and file form an unwieldy company with the present establishment of officers and non-commissioned officers, and is not to be recommended.

Major G. K. Shaw, 68th Light Infantry.

I would be inclined to have the strength of British regiments regulated on a sort of sliding scale. Let a regiment before it is sent out to India be raised to the full war establishment of 1,000. Let it remain out here until the strength had come down to 500 or 600, no drafts being sent out to it. Then send it home. In this way a regiment which had been unlucky in its health in Indian stations would get home sooner, and one which had not suffered from the climate would remain out longer. The expense of sending out continual drafts would be avoided.

The troop-ships would be available to bring out more regiments every year, having no drafts to carry. An average strength of 700 or 800 would be kept up throughout India, which is as many as an ordinary battalion can parade now; and even when casualties had reduced the strength to 600, those 600 men, all acclimatized and all six or seven years in the country, would be more serviceable than 800 men under the present system, one-third of whom perhaps are recruits.

The relieving battalion at home would so arrange its recruiting as to arrive at the full war establishment by the time the Indian battalion had to come home.

The foregoing scheme only contemplates sending home invalids while the regiment is in India. The drain of time-expired men must be got rid of by lengthening the term of engagement for Indian regiments to such a time as will cover the whole Indian service, which latter would probably run from five to seven years.

Major W. H. J. Clarke, 72nd Highlanders.

It would be advisable to raise the strength to 1,000 rank and file; for with the present strength the numbers fit for duty with the colors is too small for war service, for the following reasons, *viz.* :—

- 1st.—The number of men generally sick, not fit for service in the field.
- 2nd.—Men left at hill stations sick.
- 3rd.—The number of men detached for staff employ of different descriptions.

Major W. Galbraith, 85th Light Infantry.

The present strength of officers, non-commissioned officers, and buglers, or drummers is ample for an establishment of 1,000 rank and file in all situations on active service.

A force composed of such battalions presents the following advantages when compared with an equal aggregate of rank and file organized in battalions on the existing scale of 820 rank and file each :—

- (a) A saving of 10 per cent. in pay and allowances (see table).
- (b) A saving of 5 per cent. in carriage, camp equipage, and baggage, and consequently a reduction in the guards required for regimental camps and baggage trains, and a proportionate increase in fighting power.
- (c) A saving of nearly 2 per cent., or, if followers are reckoned, of more than 3 per cent., of food-supplies.
- (d) A saving of 2 to 3 per cent. in the hospital accommodation and equipment to be provided for sick and wounded.

Hence each regiment when warned for active service should be raised to a strength of 1,000 rank and file, the increase being effected by drawing from the home depot.

The permanent maintenance of an establishment of 1,000 rank and file in India is not advisable for the following reasons :—

- (1) A force thus organized would want in elasticity; for assuming that 50 battalions, each of 820 rank and file, are replaced by 41 battalions, each containing 1,000 rank and file, the aggregate fighting strength will in both cases be 41,000 bayonets. But should a sudden emergency demand an increase of 9,000 men, the force of 41 battalions will be incapable of the necessary expansion, except by bringing into the field nine battalions unacquainted with Indian service, and therefore comparatively helpless; on the other hand, 50 battalions of the existing strength could at once incorporate a reinforcement of 9,000 men without becoming less fitted to take the field.

(2) The existing establishment of non-commissioned officers is insufficient for a regiment of 1,000 rank and file in Indian cantonments, where even now, in consequence of the wide dispersion of barrack-rooms, the ordinary routine duties of sergeants and corporals are so severe as to deter many good soldiers from taking promotion.

(3) In most stations existing barracks can barely accommodate regiments of 820 rank and file. It would therefore be necessary either to add new buildings, or to break up regiments into half-battalions or detachments. The latter alternative is most prejudicial. The efficiency of a corps largely depends on its commissioned and non-commissioned staff; and though these are replaced in a detached half-battalion by officiating officers and non-commissioned officers, the withdrawal of the latter from their legitimate duties is so injurious to training and discipline, that I should rely more in the field on a regiment of 820 bayonets that had been constantly together than on one of 1,000 bayonets that had been for any considerable time in separate half-battalions.

Hence regiments raised to 1,000 rank and file in expectation of active service should be allowed to revert to their ordinary establishment as soon as the necessity for an increase of force ceases, the reduction being effected by sending home and not replacing invalids and time-expired men.

TABLE (REFERRED TO IN PAGE 347).

Pay and allowances of a regiment on present establishment for one month of 30 days.

	Rs.	A.	P.	Rs.	A.	P.
OFFICERS.	1 Lieut.-colonel	1,402	4	0		
	2 Majors ...	1,578	6	0		
	8 Captains ...	3,563	0	0		
	8 Lieutenants...	2,054	0	0		
	8 Sub-licuts ...	1,622	3	4		
	Adjutant ...	543	10	0		
	Paymaster ...	506	11	0		
	Quartermaster	359	14	3		
	Interpreter ...	70	0	0		
	Instructor of Musketry ...	150	0	0		
	Surgeon-Major	825	11	5		
					12,675	12
N. C. OFFICERS.	Sergeant-Major	60	0	0		
	Qr.-Mr. Sergt.	46	10	8		
	Band-Master...	54	10	8		
	Armourer Sergt.	81	5	4		
	Hospital Sergt.	38	10	8		
	Sergt. Instructor of Musketry ...	52	0	0		
	8 Color Sergts.	352	0	0		
	36 other Sergts.	1,296	0	0		
	16 Buglers or Drummers ...	277	5	4		
					2,258	10
Total exclusive of rank and file				14,934	6	8
RANK & FILE.	40 Corporals	906	10	8		
	780 Privates...	12,480	0	0		
				13,386	10	8
(A) Total for regiment				28,321	1	4
Total pay of 50 regiments of 802 rank and file each, or an aggregate strength of 41,000 bayonets.						
(B) = (A) × 50 =				Rs. 14,16,054	2	8
Total pay of 41 regiments of 1,000 rank and file each, or an aggregate strength of 41,000 bayonets (including 1,640 corporals).						
(C) = (A) × 41 × pay of 7,390 privates, at Rs. 16 =				Rs. 12,79,244	6	8
(D). Aggregate monthly saving				Rs. 1,36,809	12	0
or roughly speaking				10 per cent.		

Major G. S. White, 92nd Highlanders.

I think it would be a great step in the right direction, both as effecting a saving in the officering of the British infantry in India, and as

likely to increase the efficiency of battalions in the field. The small numbers that can now be paraded often paralyze intelligent instruction of the battalion. India is especially adapted for training men on large areas; but, unless a commanding officer can turn out enough of men to give some semblance of reality to his parade, it degenerates into a mere barrack square drill, with all the real essentials of modern training, such as the study of ground, time and distance, left to the fancy or omitted altogether. If the extra strength of battalions is to be employed for duties detached from battalion head-quarters, I think any saving in expense would be lost in efficiency, particularly with young soldiers.

Captain H. M'L. Hutchison,  
1-14th (Prince of Wales' Own)  
Regiment.

Yes, I would if it were merely in order that each regiment might perform its own transport work and other duties in the field, and yet have enough men to fight.

Captain R. H. Fawcett, 33rd  
Foot.

Certainly, on the double grounds of efficiency and economy :—  
Efficiency—

(a) Because discipline is more easily and steadily enforced in a considerable body of troops kept together, it being a notorious fact that the discipline of detachments or small bodies of troops almost invariably deteriorates.

(b) The morale and confidence in themselves of troops also is much greater when they are formed and exercised together in what appears, however comparative the appearance, to be formidable numbers.

(c) When employed in war, a regiment with a paper strength of 1,000 men will probably have an effective strength of 800 bayonets at the outset, and may be expected to keep up a sufficient strength to be useful as a regiment during a campaign long enough to admit of the first series of drilled recruits reaching it; and there will then be sufficient of the soldiers of the regiment who have been in the campaign left to prevent their being swamped by the recruits, and the feeling of the regiment will be that of the trained veterans and not that of the recruits.

(d) There not being required so many staff sergeants with a battalion 1,000 strong as there would be with two of 500 each, there would be to a certain extent more scope in selection of non-commissioned officers.

Economy is also gained by employing strong regiments, as the staff of officers and non-commissioned officers (excluding those required for companies) would be very little greater for a regiment 1,000 strong than for a regiment of the present strength.

2. With your present establishment, how many men (rank and file) could you parade with for active service ?

Colonel J. A. Ruddell, 1-25th  
Regiment.

About 650.

Colonel H. R. L. Newdigate,  
Commanding 4th Battalion Rifle  
Brigade.

Seven hundred is probably the most that would be passed fit for active service.

Colonel H. S. Cochrane, v. c.,  
Commanding 43rd Light Infantry.

With the present establishment, the 43rd Regiment could only parade for field service 584 rank and file. The regiment is divided as follows :—

Thayetmyo ... ..	...	...	...	678
Wellington Depôt ... ..	...	...	...	90
Poonamallee—to be invalided home . . . . .	...	...	...	48
On command... ..	...	...	...	13
				<hr/>
				829
Wanting to complete ... ..	...	...	...	57
				<hr/>
			Establishment ... ..	886
				<hr/>

Lieutenant-Colonel T. Rowland,  
Commanding 1-5th Fusiliers.

Judging by the number we turned out for late war, 740.

Lieutenant-Colonel W. D. Tomp-  
son, Commanding 1-17th Foot.

Probably 650. The strength of the battalion on 14th October 1879 was 832 rank and file, of which 639 marched from Rawal Pindi for the frontier. The remaining 193 were either sick or medically unfit, or on staff employ. The battalion was particularly healthy, having been stationed for the three preceding summers in the Murree hills.

Lieutenant-Colonel M. Macgregor,  
1-15th Foot (The Royal Irish).

Not more than 720.

Lieutenant-Colonel A. Temple-  
man, Commanding 1-21st Fusiliers.

Taking my duty state of last month, 577 rank and file, including bandmen, pioneers, and clerks—in fact, every one save sick (absent and present) and three hospital attendants,



Lieutenant-Colonel Daubeny, 7th Fusiliers.

If ordered to parade for active service, we should march out with about 681 rank and file.

Thus—

My establishment (Army Circular, 1877) is 886 of all ranks (exclusive of officers); and this is my exact strength in India at present.

By the same circular my establishment of rank and file is 820.

At present I have 139 rank and file away, so that there would be only 681 available for active service.

Absentees are thus accounted for—

In hospital	...	...	...	51
At convalescent depôts	...	...	...	75
Invalids	...	...	...	4
Prison	...	...	...	9
Total				139

Some men would probably rejoin from the convalescent depôts, and one or two from prison; but it would not be safe to calculate on an increase, for, on an inspection before marching out, some few weakly men would be sure to be excluded from the ranks.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

When my battalion left Nowshera in the month of April last to join the 2nd Division of the Peshawar Valley Field Force, I marched out with 780 rank and file. I could have had more men, as the regiment was at that time in a very good state of health; but I was ordered to leave a depôt consisting of 70 men behind me.

Lieutenant-Colonel D. Warren, Commanding 2-14th Regiment.

I could parade with about 690 rank and file, but should not recommend more than 600 being taken on service, as from the extreme youth and physical unfitness of the balance it could only be expected to crowd the hospitals and to impede the mobility of the force it might be attached to. This battalion, which arrived in India in November 1878, has already over 60 men invalided in the hills, and expects to send home nearly 50 invalids next trooping season.

Lieutenant-Colonel R. Cuthbert, Commanding 2nd Battalion 15th Foot.

About 750.

Lieutenant-Colonel G. W. Puget, Commanding 3-4th Regiment.

Seven hundred and fifty-eight rank and file.

This includes 17 drummers.

But it does not include 9 court-martial prisoners, or 12 men on command, as they have not been medically inspected.

Lieutenant-Colonel J. S. Hand, 44th Regiment.

Establishment 820 rank and file; actual strength 803. Strength in Burma 770; of whom could parade for active service 703.

Thirty-three are in India at convalescent depôts, &c., most of whom are believed to be fit.

Lieutenant-Colonel T. W. Hughes, 54th Regiment.

With the establishment of 820 rank and file, 720 might be expected to march from quarters for active service. I calculate the sick and absentees from the experience of the 54th Foot during the past five years, and make no allowance for a depôt to protect women and stores.

For example, in March last head-quarters and four companies embarked for service in Burma 384 rank and file. The other half-battalion could have followed with 430 rank and file fit for service without drawing on the convalescents at Darjeeling.

The strength of the regiment at the time was 914 rank and file, and 814 could have been on parade.

The sick list was very small at the time.

Lieutenant-Colonel C. B. Knowles, 67th Regiment.

640 privates: *vide* my answer to question 1.

Lieutenant-Colonel G. H. Parker, 92nd Highlanders.

About 750.

Major F. Stephen, 4th Battalion Rifle Brigade.

With the present strength of the 4th Battalion Rifle Brigade, which numbers 962 (being 76 in excess of the establishment) about 500 effective men could be put in the field. Out of 268 men of the draft recently arrived from England, about 200 would now be unfit for active service, and of the remainder about 200 are medically unfit. It must be remembered that these numbers have been increased owing to sickness caused by the recent campaign.

Major F. S. Terry, 1-26th Foot.

Yes; I am of opinion it would be better to do so. A regiment in India is often called upon for service in the field at very short notice. The time-expired men of the year may have left, while the annual draft of recruits from England may not arrive till too late. The invalids of the year cannot be counted in the strength of the battalion, nor those men who are away in the hills for change of climate; besides, a further diminution of numbers takes place by the rejection of those pronounced medically unfit for field service.

The above causes all go to show the advantage of keeping up in batteries in places like India far distant from our resources the fullest establishment of rank and file that can be conveniently held under one command.

- Major H. P. Pearson, 12th Foot. This question can best be answered by a statement of what actually occurred when the regiment was ordered on service in April last. It marched from Nowshera with 770 rank and file and 850 of all ranks, including 25 officers.
- Major J. H. Campbell, 33rd Regiment. About 550 rank and file.
- Major G. K. Shaw, 68th Light Infantry. 640 out of 760 now in India.
- Major W. H. J. Clarke, 72nd Highlanders. About seven hundred and fifty, taken on 1st August 1879. When we marched into Kohat on the 8th November 1878, the strength of the regiment was six hundred and thirty-nine.
- Major W. Galbraith, 86th Light Infantry. Being absent from my regiment, I cannot offer a reliable answer. Probably 5 to 7 per cent. would be found unfit for active service, though capable of performing garrison duty.
- Major G. S. White, 92nd Highlanders. The 92nd Highlanders one above their established strength crossed the frontier on 2nd April last, 735, or about 85 men below their strength.

3. How many officers are away from the regiment—

- (a) On medical certificate in England or India?  
 (b) In England on private affairs?  
 (c) Staff appointments; and of these how many are seconded?  
 (d) Regimental depôt or staff college?  
 (e) Probationers, staff corps?  
 (f) Garrison course.

How many officers are actually present with the regiment?

- Colonel J. A. Ruddell, 1-25th Regiment. Seventeen.  
 (a) One in England—four in India,  
 (b) One.  
 (c) Two—both seconded.  
 (d) Regimental depôt—2 captains 1 subaltern—none at staff college.  
 (e) One.  
 (f) None.  
 Officers actually present with regiment 13, namely—  
 Field officer. Captain. Subaltern. Staff.  
 1 3 8 1 = 13  
 (One subaltern besides this number is with the depôt at Fyzabad.)
- Colonel H. R. L. Newdigate, Commanding 4th Battalion Rifle Brigade.  
 (a) 1 captain and 1 subaltern in England.  
 1 captain in India.  
 (b) 1 subaltern.  
 (c) 1 captain has been seconded, but he no more belongs to the battalion.  
 (d) 1 captain.  
 (e) Nil.  
 (f) Nil.  
 1 lieutenant-colonel, 2 majors, 6 captains, 11 subalterns, 1 adjutant, 1 paymaster and 1 quarter-master.
- Colonel H. S. Cochrane, v.c., Commanding 43rd Light Infantry. Twenty-six.  
 (a) Five  
 (b) One.  
 (c) Six (four seconded).  
 (d) Four (1 captain, 3 subalterns).  
 (e) Eight.  
 (f) Two.  
 Twenty.
- Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.  
 (a) 2 captains and 2 subalterns.  
 (b) None.  
 (c) None.  
 (d) At regimental depôt 2 captains, 2 subalterns; none in staff college.  
 (e) 2 subalterns.  
 (f) None.  
 1 field officer, 3 captains, 6 subalterns, 2 staff.

Lieutenant-Colonel W. D. Tompson, Commanding 1-17th Foot.

- (a) In England none. In India three.  
 (b) None. All rejoined for the Afghan expedition.  
 (c) Two. Colonel Cobbe appointed Brigadier-General at Agra. Captain Turner a probationer for the Army Pay Department Seconded, none.  
 (d) Two at the regimental depôt. (Should be four, but two vacancies have occurred by deaths.)  
 At the staff college, none.  
 (e) Two.  
 (f) None.

Twenty-one, including those on privilege leave and at the service depôt at Rawal Pindi, exclusive of medical officers. Three second-lieutenants are required to complete the establishment.

Lieutenant-Colonel M. Macgregor, 1-18th Foot (The Royal Irish).

- (a) Three.  
 (b) One.  
 (c) Five; four of these are seconded.  
 (d) Five.  
 (e) Two.  
 (f) None.

Twenty-one, including three officers at a convalescent depôt.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

- (a) 2 lieutenants in India.  
 (b) None.  
 (c) 7 captains; 4 of these seconded.  
 (d) 1 captain and 2 lieutenants, home depôt; 1 captain, staff college.  
 (e) 3 lieutenants.  
 (f) 1 second-lieutenant, course of signalling at Bangalore.

*Other absentees*—1 captain, probationer for army pay department with 2-16th Regiment; 1 captain, duty at Wellington depôt; one second-lieutenant, duty at Poonamallee depôt, present with battalion.

*N.B.*—I here give numbers as they will be on 31st instant, when 1 major and myself will have rejoined from leave of absence:—

- 1 lieutenant-colonel.  
 2 majors.  
 3 captains, including acting paymaster.  
 10 lieutenants, including adjutant and instructor of musketry.  
 1 quarter-master.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

Including those at the depôt 20 officers are away—

- |  |     |     |
|--|-----|-----|
| (a) On medical certificate in England or India | ... | 3   |
| (b) Private affairs, England                   | ... | 2   |
| (c) Staff appointments (two of these seconded) | ... | 7   |
| (d) Regimental depôt or staff college          | ... | 5   |
| (e) Probationers, staff corps                  | ... | 3   |
| (f) Garrison course                            | ... | Nil |

The number actually present with the battalion is 18.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

- (a) Three captains and two subalterns on medical certificate in India; none at home.  
 (b) None.  
 (c) One major, three captains, one of whom is seconded.  
 (d) One captain, two subalterns, at regimental depôt; one captain at staff college.  
 (e) Two subalterns.  
 (f) None.  
 One field officer, two captains, seven subalterns, and one staff.

Lieutenant-Colonel D. Warren, Commanding 2-14th Regiment.

- (a) None.  
 (b) None.  
 (c) One lieutenant on transport duty in Kuram valley, not seconded.  
 (d) Captains 2, subalterns 2.  
 (e) None.  
 (f) None.  
 Field officers 3, captains 8, subalterns 14, staff 4, not including medical officers.

Lieutenant-Colonel R. Cuthbert, Commanding 2nd Battalion 15th Foot.

- |                                |     |     |     |     |
|--------------------------------|-----|-----|-----|-----|
| (a) Medical certificate        | ... | ... | ... | 5   |
| (b) In England private affairs | ... | ... | ... | 1   |
| (c) Staff appointments         | ... | ... | ... | 6   |
| of these are seconded          | ... | ... | ... | 3   |
| (d) Regimental depôt           | ... | ... | ... | 6   |
| (e) Probationers, staff corps  | ... | ... | ... | 3   |
| (f) Garrison course            | ... | ... | ... | Nil |

18 Regimental officers.  
2 Medical officers.  
1 Paymaster.

21

Lieutenant-Colonel G. W. Puget,  
Commanding 34th Regiment.

Twenty-two officers are away from the regiment—

- (a) Four.
- (b) None.
- (c) Nine, of whom five are seconded.
- (d) Four regimental depôt; staff college none.
- (e) Four, of whom three are seconded.
- (f) One due on 1st October 1879.

Twenty-one officers are actually present with the regiment.

This includes—

- 1 Surgeon-major.
- 1 Quarter-master.
- 1 Paymaster.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

There are actually present with the regiment 22. This includes adjutant and quarter-master.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

- (a) None.
- (b) One captain.
- (c) Four captains, of whom three are seconded.
- (d) Four at regimental depôt, and one at staff college (5).
- (e) Six subalterns.
- (f) None at present; one under orders for next class.

Twenty-one officers present with the regiment, including paymaster and quarter-master, and officers on privilege leave.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

Eighteen.

- (a) Nil.
- (b) 2.
- (c) 2, both.
- (d)  $\left\{ \begin{array}{l} 4 \text{ at regimental depôt.} \\ 3 \text{ at depôt, Bangalore.} \\ 2 \text{ attached to 37th Foot till trooping season.} \end{array} \right.$
- (e) 5.
- (f) Nil.

19 combatant officers, of whom 8 of the juniors have announced their intention of joining the staff corps when duly qualified.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

- (a) None.
- (b) Seven.
- (c) Four; three are seconded (adjutant's auxiliary forces).
- (d) Three regimental depôt; none.
- (e) None.
- (f) None.

Fifteen, and one with the depôt at Sitapur.

Major F. Stephen, 4th Battalion  
Rifle Brigade

Four captains and one subaltern.

- (a) One captain and one subaltern.
- (b) One captain and one subaltern.
- (c) Two captains (both seconded).
- (d) One captain, one subaltern.
- (e) None.
- (f) None.

Major H. P. Pearson, 12th Foot

There are absent from the regiment the following :—

- (a) On medical certificate, none in England, four in India.
- (b) None on private affairs in England.
- (c) Five holding staff appointments, namely, one in England, four in India; of the five, two are seconded.
- (d) Three at the depôt in England; one at the staff college.
- (e) Three probationers for the staff corps.
- (f) None at the garrison course.

There are eleven officers actually present with the regiment, but that number does not include five on privilege leave and two at depôt of the battalion in India.

Major J. H. Campbell, 33rd  
Regiment.

Twenty-one.

- (a) None.
- (b) Two.
- (c) Six, of which three are seconded.
- (d) Four at regimental depôt.
- (e) Two.

(f) There are besides two officers doing duty with North-Western Frontier Force and two officers doing duty at convalescent dépôt.

Fourteen.

Major W. H. J. Clarke, 72nd Highlanders.

Nineteen—

(a) Two.

(b) One.

(c) Five; seconded two.

(d) Regimental dépôt four; staff college none.

(e) Three.

(f) None.

Nineteen. All the above answers taken on 1st August 1879.

4. What reductions do you consider feasible in the establishment of followers with your regiment in peace and war?

Colonel J. A. Ruddell, 1-25th Regiment.

In peace time none. In war all, except the following—

16 puckalis.

8 sweepers.

2 bildars.

I would recommend that mules should be substituted for bullocks in war.

Colonel H. R. L. Newdigate, Commanding 4th Battalion Rifle Brigade.

I think that many of the duties now performed by Native cooks and mehters might be performed by the soldiers in the cold weather in peace time. On service it is of consequence not to keep more men than is absolutely necessary out of the ranks.

Colonel H. S. Cochrane, v.c., Commanding 43rd Light Infantry.

None.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

In peace I don't think any; in war 4 of the sweepers and 4 bildars could be dispensed with.

Lieutenant-Colonel M. Macgregor, 1-18th Foot (The Royal Irish).

During peace, and serving in cantonments, there could be no reduction in Native followers. The authorized number is barely sufficient for the wants of a regiment in barracks.

In war each company should have their field service allowance of water-carriers, *viz.*, 2 puckalis and 2 bhisties, with 1 sweeper and 4 cooks. On an emergency 1 puckali, 1 bhistie, and 4 cooks would suffice.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

None. The present establishment of bhisties would be far below the requirements of the battalion when on the march or in the field.

Lieutenant Colonel A. G. Daubeny, 7th Fusiliers.

None. The cantonments are so extensive, that I do not consider the soldiers could be employed in sweeping and cleaning, as in England, without suffering from the sun; and the present Native establishment only just suffices for the work that has to be done.

In war much would depend on the locality of the scene of operations; but, as a rule, I consider the soldier in India would have quite sufficient to do in marching and fighting and in pitching his camp and looking after his arms, &c., on termination of the day's work, without being further saddled with duties of fatigue for purposes of sanitation, &c.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

With due regard to efficiency, I do not see that any reduction in the followers could be made during peace. In time of war one-half of the quartermaster's establishment of sweepers and the hand-bhisties might be dispensed with; also the conservancy.

Lieutenant-Colonel D. Warren, Commanding 2-14th Regiment.

None. Unfortunately the efficiency of the British soldier in this country is dependent upon the services of Natives, who are able to perform certain offices which the European is unable to perform for himself without serious risk to his health; also a reduction in the fighting strength of the battalion would ensue even could the duties performed by lascars, bhisties, sweepers, cooks, &c., be undertaken by the soldier during certain times of the year.

Lieutenant-Colonel R. Cuthbert, Commanding 2nd Battalion 16th Foot.

None.

Lieutenant-Colonel G. W. Puget, Commanding 34th Regiment.

No reduction is feasible. The present establishment barely suffices to carry out with efficiency the duties for which entertained.

Lieutenant-Colonel J. S. Hand, 44th Regiment.

Public establishment none; on active service would require augmentation.

Private establishment, such as cooks, dhobis, &c., none are absolutely necessary; but on service in the field their presence would be a source of strength as well as economy, since they cost less to ration, and, in their absence, the duties would necessarily be performed by soldiers, thus reducing your fighting line.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

With due regard to the reasonable comforts of the men, and the necessary conservancy operations, I do not think any reduction feasible.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

I have no experience with regard to a peace establishment than that maintained in Madras, where the establishment consists of—

2 bhisties per company.  
1 kutwah }  
2 peons } per battalion.  
Sweepers: toties are stationary.

When the regiment left Bangalore, the establishment was increased—

2 bhisties }  
1 totie } per company.  
1 tindal }  
12 lascars } per battalion.

The lascars I consider can be reduced one-half.

The toties should be increased one per company.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

None in peace, but one-quarter in time of war.

Major F. Stephen, 4th Battalion  
Bifle Brigade.

In the establishment of followers (with the exception of tent lascars, who are in excess of the number required), I do not see that any reduction in time of peace could be made; but mehters, bildars, tent-lascars, and a proportion of cooks might in war time be dispensed with altogether, the whole of the duties performed by them being done (and with advantage) by the soldier.

Major F. S. Terry, 1-25th Foot.

I do not consider that in peace time there could be any reduction of followers, except where mechanical appliances can be substituted; but in war the only establishment that need be retained is 16 puckalis, 8 sweepers, and 2 bildars. In war I would recommend mules to be substituted for bullocks for carrying water. On a long march in hot weather the bhisties soon get run out of water, and the bullocks cannot keep up well enough to be of use.

Major H. P. Pearson, 12th Foot.

In cantonments the scale is, in my opinion, cut down to the lowest point compatible with efficiency, and in the matter of conservancy is in some respects too low, notably so in the number of filthearts allowed. It is no uncommon thing for divisions of artillery and regiments of infantry to supplement the scale of carts allowed by Government with others kept up at the cost of the regiment. The puckalis, bhisties, cooks, and sweepers are all hard-worked.

The number of followers allowed by scale for the Afghan campaign was sufficient, but certainly not in excess of requirements.

Major J. H. Campbell, 83rd  
Regiment.

The soldier should be required to keep his barrack-room clean and in order, both outside and inside. This would reduce the number of sweepers; but this is the only reduction I think could be made in peace time. In war time bhisties alone are a necessity, and, if the campaign is during the hot season, two cooks per company to watch the cooking during the heat of the day; but the soldier should be required to prepare the rations for cooking.

Major J. D. Dyson-Laurie, 34th  
Foot.

Regimentally, in the plains I have not found any superfluity of followers. In the hills I think that the more occupation the soldier has the better, and that followers might be very generally dispensed with advantageously.

Major G. K. Shaw, 68th Light  
Infantry.

None in peace time, except in hill stations, where I do not think cooks are required, as suggested in answer to question 7.

On field service the number of sweepers, cooks, and cook's utensils might be reduced.

Major W. H. J. Clarke, 72nd  
Highlanders.

I do not consider any reduction feasible in the establishment of followers in peace time; that is, if the comforts of the men are to be looked to. Nor do I see how the present Cabul scale could be reduced in time of war, unless the men were made to cook and wash for themselves. But I do not think this would be a good plan, except under emergency; for in my opinion the climate of India is not fitted for Europeans to be employed in the abovementioned works.

Major W. Galbraith, 86th Light  
Infantry.

In considering this question, it must be borne in mind, not only that every needless follower is at all times a source of expense, and an incumbrance in war, but also that the soldier is rendered less independent and efficient by being taught to look to others for services which he is

capable of performing for himself without detriment to his health. Thus, during the recent campaign, small escorts, parties of signallers, &c., when detached from the neighbourhood of British troops, experienced great difficulty with regard to cooking their food. Cooks and deghchies could not be spared; and the alternative was to supply cooked rations, which, carried in a havresack, soon become unpalatable and unwholesome.

In South Africa such parties would have been quite independent. The men from long practice were full of resource; and if neither camp-kettle nor mess-tin was available, a spit was found in the nearest stick, and a stewpan extemporized by wrapping the meat in fresh leaves and covering the whole with a layer of clay dough.

*Reductions suggested.*—Kahar (see answer 14).

The employment of bhistics is rendered necessary by the conditions of water-supply in India.

Lascars, sweepers, bildars, cooks, and dbobis, except those entertained for hospitals, should not accompany a force on field service; nor should any of the first four classes be allowed in ordinary camps or on the line of march.

I would also dispense with cooks at hill-stations, and would only allow one per company in the plains, in order that the men might learn to prepare their own food.

This would involve the substitution of iron camp-kettles for copper deghchies—a change for the better, as they do not require tinnings, are easily cleaned, preserve the ration from dust on the march, and can be slung on any baggage-animal without kajawahs.

There are a number of extra bhistics and bildars entertained during a march, whose services might be dispensed with. Good men won't take the temporary employment which generally takes them far from their homes. Coolies are employed to fill the muster-rolls, whose plans it suits to travel in the direction the battalion is moving. There are pukka wells on most of the camp-grounds.

I should endeavour in both cases to do without Native followers, except a few mehters and bhistics.

I do not think that in the plains, during the hot season and rains the present number of followers could be reduced with due regard to the soldiers' health, but whenever stationed in the hills, or even in healthy elevated situations, as Poona or Bangalore, all followers should be dispensed with as much as possible, and the soldiers trained to be self-dependent, as in England.

In war time bhistics would be always necessary; but I think the cooks might be dispensed with, and the soldier encouraged to cook food for himself and comrade in his mess-tin. When a regiment arrives on its ground at the end of a march, three or four hours at least is required before a meal can be prepared in the large cooking-pots in use with British regiments in this country, whereas the same food, divided into small mess-tins, can be rapidly cooked. In Abyssinia many of our men took to cooking by themselves in their mess-tins to gain this advantage over those who waited for the company cook. The Native cook is indispensable during the hot weather and the greater part of the year in peace time; but a true "march out" for three or four marches from cantonments, making a week or ten days outing in the cold weather, during which time the soldier was made to cook and do every thing for himself as much as possible, as in war, would do much for the efficiency of British troops in this country, who have lost enormously in valuable training through reliefs being carried out by rail instead of march route.

5. Do you consider the present mode of entertaining followers can be improved; and how?

Colonel J. A. Ruddle, 1-25th Regiment.

No; I can suggest no improved method for entertaining regimental followers.

Colonel H. S. Cochrane, V.C., Commanding 43rd Light Infantry.

Yes; all followers should be attested and promised a small pension when worn out in the service, and family remittances made.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

I don't see how it can.

Lieutenant-Colonel M. Macgregor 1-18th Foot (The Royal Irish).

The mode of employing followers in the stations in which the troops are located is bad. Very few of the men so employed will accompany a regiment, even on a march of change of quarters. A better system is

to obtain them through their respective jemadars and from certain localities. The majority of the bhisties with my battalion are from the Agra district; the lascars from Fyzabad. These men serve cheerfully with the battalion, and can be depended on.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

From what experience I have had, I think the regiment employing all its own followers would be the best system.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

— No; the present system seems to work well.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

I am not aware of any better mode of providing followers than the present system.

Lieutenant-Colonel D. Warren, Commanding 2-14th Regiment.

No.

Lieutenant-Colonel G. W. Puget, Commanding 34th Regiment.

I am unable to suggest any improvement in the mode of entertaining followers.

Lieutenant-Colonel J. S. Hand, 44th Regiment.

Yes, by enlisting all followers up to the authorized establishment at each station.

Lieutenant-Colonel T. W. Hughes, 54th Regiment.

• The present mode, which is regimental, works satisfactorily.

Lieutenant-Colonel C. B. Knowles, 67th Regiment.

I have no suggestion to offer with regard to the entertainment of *regimental* followers, *i.e.*, the quartermaster's establishment. With regard to the kahars, I consider they should be *carefully* examined by a surgeon before enlistment, and receive some training before joining regiments.

Lieutenant-Colonel G. H. Parker, 92nd Highlanders.

I do not.

Major F. Stephen, 4th Battalion Rifle Brigade.

I consider it would be difficult to make any suggestions under this head.

Major J. S. Terry, 1-25th Foot.

I do not consider the present regimental mode of entertaining followers can be improved, unless an organization of followers be introduced. I consider that it would be an advantage to the service that followers who are required to accompany regiments on service should be organized into lascar battalions and companies, and be interchangeable in regiments; and the same as regards departments.

Major H. P. Pearson, 12th Foot.

No, except as regards the hiring of punkha-coolies. The present system of employing a contractor is full of abuses and radically bad. Under it, Government, the soldier, and the coolie are all swindled. Government pays for coolies that are never hired; and for the services of cripples, the halt, the maimed, and the blind, the old and infirm, and children, gives full wage, the contractor paying a mere nothing and pocketing the difference. The soldier is swindled of that rest and comfort which Government pays liberally to give him; for, in the first place, he does not get the service of the number of men to which he is entitled, and in the second, the coolies are many of them utterly unfit for the work. The coolie is swindled, not only in having to pay a large portion of his wages to the contractor, but in some cases in having to pay from one to two rupees for the privilege of being entertained.

The evil is deep-seated, and nothing short of interference by high authority can remove it.

The remedy is to abolish the contractor, and to make the punkha-coolie a Company's servant (as the cook is) for the time he is required, entertained and paid by the captain, with no go-between.

Punkha-coolies can always be found in any numbers. They live either in cantonments or in the neighbouring villages, and pull punkhas in barracks year after year. Nine-tenths of them are in the power of the contractor, and, under the present system, can get no employment save through him.

Let it be proclaimed in every cantonment and adjoining village that the regiment will deal with the coolie direct, and pay him such and such sum for so many months. Let each captain now assemble the coolies that happen to be at work in his company; take down their names and villages; and tell them that in future seasons they will get employment by coming to him, and that their wages will be such and such a sum. Above all, let them understand that for them there is no longer such a thing as a contractor. It stands to reason that they will gladly accept the new conditions and their pay without deductions.

To prove effectual, this system must be introduced with a firm hand and simultaneously.

The contractor must be cut adrift at once and for all. Both he and the coolie must understand that in future the one has nothing to hope for, the other nothing to fear.



\* It should be remembered that there are others beside the contractor who have vested interests in the present system, and who would strenuously oppose reform.

I feel confident that the introduction of the scheme I have sketched, or of any other which would abolish the contractor and vest the entertainment and payment of the punkha-coolie in the captain of the company, would result in a saving—a large saving—to Government, in an increase of comfort and health to the soldier, and in very solid benefit to the coolie.

I do not speak without book. For years I have made it my business to ferret out the iniquities of this contract system; and I know that it is rotten to the very core.

When a contractor can unblushingly in writing offer Government Rs. 450 for the contract for supply of punkha-coolies for head-quarters and three companies of a British regiment for one season, there is presumptive evidence that that there is something wrong.

This was done last year in the case of the 39th Foot at Jhansi, and the correspondence will be found in the office of the Quarter-Master-General.

Major J. H. Campbell, 33rd Regiment.

I cannot suggest an improvement.

Major J. D. Dyson-Laurie, 84th Foot.

I can suggest no improvement. I would leave them under regimental control.

Major G. K. Shaw, 68th Light Infantry.

I think the present mode satisfactory.

Major W. H. J. Clarke, 72nd Highlanders.

Yes, the company cooks, dhobis, bhisties, mehters, &c., should be regular Government servants, the same as the tent lascars, "or, better still, if they could be enlisted," receiving after a certain number of years a small pension.

This would be an inducement for good men to join, and give Government a hold on them; so that when ordered on active service or to any unpopular stations, there would be less difficulty in getting these necessary servants to accompany the regiments. The pay of the cooks and dhobis would be charged against the men of the regiment, as at present.

Major W. Galbraith, 85th Light Infantry.

If lascars, sweepers, and bildars can be dispensed with in camp (see answers 7 and 4), they should be entertained locally for each station instead of regimentally. This will save the cost of moving them and their families in relief by rail.

It is probable that conservancy can be more economically worked by a system of local contracts, as in England, than by the entertainment of a paid establishment.

Major G. S. White, 92nd Highlanders.

Yes, by enlisting the followers and offering a small pension, say after 20 years' service; giving each man also some clothing, say one pugree, one coat, one pair trousers, one pair shoes, yearly. Employment would then be more sought after and would attract a better class, whose antecedents would bear investigation, and who would have too much at stake to become, as the present class undoubtedly are, the aiders and abettors of the men in all their most disease-producing malpractices.

## 6. Can they be so organized in peace as to make men less dependent and defenceless in war?

Colonel J. A. Ruddel, 1-25th Regiment.

I think they might be organized (armed and equipped) somewhat on the principle of our army hospital corps with much advantage.

Colonel H. R. L. Newdigate, Commanding 4th Battalion Rifle Brigade.

Doolie-bearers should be more under control and amenable to discipline.

Colonel H. S. Cochrane, V.C., Commanding 43rd Light Infantry.

If treated as above, they could be drilled in time of peace.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

I don't think so.

Lieutenant-Colonel W. D. Tompson, Commanding 1-17th Foot.

I think not, and that to attempt it would be pure waste of time. They should, however, be well clothed and furnished with shelter, so that they may be able and fit for the work for which they are entertained. On several occasions during the late expedition the regimental hospital establishment was suddenly and temporarily increased in the middle of winter by 200 or 300 doolie-bearers without tents or shelter of any kind being provided for them. Undoubtedly a better organization for the doolie-bearers on service is an absolute necessity. The mates are, as a rule, feeble old bearers, unable and unwilling to maintain discipline of

any sort. I would suggest that all doolie-bearers employed on field service should be organized into companies or some convenient unit, the men of which should be always kept together and be distinguished by some conspicuous mark, such as a distinctive puggree. Great inconvenience resulted from the impossibility of detecting, on the march, to what corps a bearer was attached, particularly as every man attempted to push on towards the head of the column where his services were least likely to be required.

Lieutenant-Colonel M. Macgregor, 1-15th Foot (The Royal Irish).

If the followers were obtained from fixed localities, as mentioned in answer No. 5, they could be organized in peace, and taught to defend themselves in war.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

I think not, but believe that arms in the hands of the generality of Madrasi servants would be useless.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

I believe it would be useless to arm the class of men we get as followers in Bombay, as I do not think they would fight. Perhaps, if given a carbine and bayonet, a feeling of self-respect and security might be generated, which would in time grow into pluck.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

I am unable to offer any practical suggestions in this particular.

Lieutenant-Colonel D. Warron, Commanding 2-14th Regiment.

Yes, it can be done, but much depends as to their caste whether a satisfactory result can be expected; and as there is the contingency of internal warfare to look to, it becomes questionable how far it would be advisable to break through the present spirit of dependence which the Native servant entertains towards his European master.

Lieutenant-Colonel G. W. Pugee, Commanding 34th Regiment.

I think each Native follower on the strength of the regiment might be armed with a tulwar.

Lieutenant-Colonel J. S. Hand, 44th Regiment.

If the inducement of a small pension, according to length of service, were offered, I think they would readily enlist. They should be armed on active service and be partially trained.

Lieutenant-Colonel T. W. Hughes, 64th Regiment.

Not further than by being armed with swords.

Lieutenant-Colonel C. B. Knowles, 67th Regiment.

I would propose that they should be organized in divisions of 150 each in charge of a non-commissioned officer of the army hospital corps, to be put through a course of sword-drill and subjected to very strict discipline.

Lieutenant-Colonel G. H. Parker, 92nd Highlanders.

I should doubt it.

Major F. Stephen, 4th Battalion 13th Brigade.

If the doolie-bearers and bhisties were drawn more from the fighting classes, say from Oudh or the Punjab, they might with little trouble (under regimental supervision) be taught to defend themselves. They should be armed, and greater care taken in their selection (physically).

Major J. S. Terry, 1-25th Foot.

Yes.—They should be armed with a light strong dagger or hunting-knife, which they could conceal if necessary in their clothes. They should not be taken below a fixed standard of physique and strength suitable to their respective employments.

They should be drilled to understand orders and to use their daggers against swords, in Spanish fashion; some article of clothing being wrapped round the left arm for a shield.

Major H. P. Pearson, 12th Foot.

If, by the question, an opinion is sought as to the expediency of arming followers, I reply that such would be harmful. I believe that in the late war an unarmed Afridi took a follower's tulwar from him and killed him with it; but I never heard that any follower successfully defended himself, or even tried to do so.

If all followers could be taught to keep silence and obey orders, the duty of protecting them would be easier than it is.

Advantage might be taken of the spring manœuvres of moveable columns to bring followers into some sort of discipline. Usually this is not attempted—at least such is my experience; and followers go from cantonments to camp as on any ordinary march.

I see no reason why doolie-bearers should not be drilled sufficiently to make them take their doolies two, three, or four abreast (or any other number) by word of command. At present their only idea is to follow each other in "column of route," unless they happen to come to a narrow defile, where that formation would be peculiarly applicable, and then they crowd forward and block the road.

On almost every main line of communication doolies could easily travel two abreast; on the grand trunk road three could do so. The advantages to a force of such a saving of space are obvious.

It would be a great thing if Natives could be taught "the rule of the road." The utter want of this knowledge, and the confusion and

delay brought about in consequence, were daily illustrated in the late campaign. Mackeson's road is broad enough to admit of a string of laden camels passing a string of unladen ones, provided each keeps its own side of the road. As a fact, this never occurred; and it became necessary to restrict the use of the road to one string at a time. The result was delay to one of the convoys each day, besides making escort duty more irksome to the troops than it need have been had the camel-drivers been acquainted with and followed one simple rule.

There would be no difficulty in subjecting the followers of a regiment to a sort of rough drill and discipline, and the results, I feel sure, would be more than commensurate with the trouble bestowed.

Major J. H. Campbell, 33rd Regiment.

Hardly. If armed and roughly organized, they would cause much anxiety, as they would probably throw away their arms and run if there was any danger; and if there was no danger, they would use their arms to threaten and obtain loot.

Major J. D. Dyson-Laurie, 34th Foot.

I am afraid not. They will always, I fear, prove an encumbrance, and one which cannot be dispensed with.

Major W. H. J. Clarke, 72nd Highlanders.

Yes; if they were regularly enlisted, they might be taught a little drill and how to use a rifle, which would give them confidence.

They could also be kept in better order if enlisted. But I am afraid that there is not much to be done.

Major W. Galbraith, 85th Light Infantry.

No. "Le jeu ne vaut pas la chandelle."

Major G. S. White, 92nd Highlanders.

I think the first step towards their organization would be to give them a standing, as above. My experience is, that their chief danger lies in their fatuous disregard of the orders issued for their safety. A more certain tenure of employment, with its prospective advantages, would, I think, go far to decrease this danger.

7. Taking the list of followers attached to your regiment in succession, state how the duties performed by them are carried on at home?

Colonel J. A. Ruddell, 1-25th Regiment.

(By the words "at home," I presume is meant during the ordinary routine of barrack life.)

Bazaar chowdry, or kotwal and peons—supervision over the regimental bazaar and the Natives generally.

Puckalis and bhisties—supply of water to the non-commissioned officers and men and married people.

Sweepers—cleaning barrack out-building and the regimental lines generally; keeping the latrines, urinals, drainage, &c., in perfect order.

Bildars—attending to the filth-pits, dry-earth for latrines, carting away night-soil, urine, &c.

Colonel H. R. L. Newdigate, Commanding 4th Battalion Rifle Brigade.

Bhisties.—There are pumps in all barracks; water-carts are used in camps of exercise.

Mechters.—The cleaning of barrack-rooms and barracks is performed by orderly men of companies and fatigue-parties (defaulters as a rule). Water-closets, and I believe now in many instances dry-earth closets, are in use, and the soil removed under local arrangements.

Bildars—by the pioneers and fatigue-parties.

Dhobis—by the soldiers' wives.

Cooks—by the soldiers.

Colonel H. S. Cochrane, v.o., Commanding 43rd Light Infantry.

"Tent lascars, cooks"—by soldiers.

Sweepers { "barracks and barrack squares" by soldiers.  
                  } privies by barrack department contract.

Washing—by soldiers' wives.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

One tindal, 8 lascars. Duties—care of tents, stores, ammunition. There are no tents to look after at home. The pioneers assist in care of stores, ammunition, &c.

Bhisties.—At home soldiers get their own water from the pump in barrack square.

Sweepers.—Orderly men are told off to keep rooms, &c., clean. Defaulters clean the barrack square, &c.

Bazaar establishment.—Not required at home.

Company cooks.—Two men per company told off.

Dhobis.—Soldiers' wives do all the washing.

Lieutenant-Colonel W. D. Tompson, Commanding 1-17th Foot.

Cooks.—The soldiers cook their own meals. As a rule, each company details two men as cooks for a month at a time, who prepare the meals under the supervision of a sergeant master-cook, who has himself been instructed, and who holds a certificate from the Aldershot School of

Cookery. The cook-houses in all large barracks are furnished with modern mechanical appliances of every description, and the rations are now prepared in a variety of ways. Twenty-five years ago the British soldier dined every day of his life on boiled beef. Soldiers are now taught to construct and use camp-kitchens. The ordinary Flanders camp-kettle is invariably used in these camp cooking-places.

Latrines and sanitary arrangements.—The barrack-rooms, stairs, passages, &c., are kept clean by the men themselves. Brooms, scrubbing-brushes, &c., are supplied by the barrack department for this purpose. The privies, barrack square, surface drains, &c., are kept clean by the regimental pioneers. At Aldershot the soil is carried off through covered-in sewers, which are flushed by water from the reservoirs near Cæsar's camp. At other barracks the soil is sometimes removed by night-men in carts constructed for the purpose.

All water required is pumped by the soldiers themselves. Some barracks are furnished with tanks and forcè-pumps; at others water is laid on. Water is conveyed to the top of the permanent barracks at Aldershot in pipes from the higher elevation near Cæsar's camp.

The men's washing is generally done by the soldiers' wives on the married establishment. The distribution is made by the captain, who apportions so many men's washing to each woman employed. Wash-houses are constructed in every barrack, with boilers.

The ablution-rooms in English barracks are very similar to those in this country. Water is generally laid on by leaden pipes fitted with brass cocks. The washing basins are "barrack furniture," and are of iron.

The regimental canteen takes the place of the Indian bazaar and coffee-shop.

Lieutenant-Colonel M. Macgregor, 1-18th Foot (The Royal Irish).

Lascars—by fatigue-parties and orderlies.  
Bhisties—by room orderlies.  
Barrack sweepers—ditto.  
Latrine ditto—by defaulters and fatigue-parties.  
Cooks—by trained soldiers under a master-cook.  
Dhobis—by soldiers' wives.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

Bhisties and puckalis are represented by pumps, water-taps, &c.  
Toties—by the European latrine systems.  
Punkha-pullers.—No equivalent.  
Hospital establishment.—At home no doolie-bearers.  
Barrack sweepers, cook-boys, &c.—All such work at home are done by soldiers.  
Officers' servants.—The same, *viz.*, soldiers at home.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

(a) Hand-bhisties distribute the water for drinking and other purposes. At home water is often laid on in each individual quarter. In places where there are only wells and pumps, the soldiers work them and distribute the water.  
(b) Barrack sweepers clean the barracks, parade-ground, &c. At home performed by the soldiers.  
(c) Halalcore bhisties and sweepers remove all excrement and refuse water from barracks. At home there is generally a system of drainage, the flushing of which is performed by the soldiers. Where there is no drainage for the closets, the filth is removed by professional night-men.  
(d) Chowdry and bazar peons.—At home these useful men are not required.  
(e) Filth carts with bullocks and drivers carry away all sweepings, &c. At home the men carry the sweepings to the ash-pits, the contents of which are afterwards removed in carts.  
(f) Cooks.—At home the men do their own cooking.  
(g) Tent lascars.—Dispensed with at home.  
(h) Doolie-bearers.—At home in barracks sick are carried by their comrades. On field-days they are put into an ambulance.  
(i) Dhobis wash for the soldiers in India. At home they do their own washing, or soldiers' wives wash for them.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

Quartermaster's establishment, consisting of bhisties, sweepers, and klassis.—At home the water is always brought from the pumps by the men themselves, who also strike and pitch their own tents. The conservancy is generally managed by a contractor.

Lieutenant-Colonel D. Warren, Commanding 2-14th Regiment.

1 tindal  
8 lascars  
16 puckalis  
5 bhisties  
15 sweepers

} duties performed by the soldier.

Lieutenant-Colonel R. Cuthbert,  
Commanding 2nd Battalion 15th  
Foot.

15 conservancy sweepers	}	latrines emptied by contract; bar-
4 bildars		racks and surroundings kept clean
5 filth-cart drivers	}	by fatigue labor from the troops.
1 chowdhry		duties performed by provost or police
1 mutsuddy	...	sergeant.
1 mutsuddy	...	not necessary in England.
2 flagman and weigh-	}	duties performed by soldiers.
man.		
Cooks and dhobis	...	cooks' duties performed by the soldier ; dhobis' work performed by the sol- diers' wives.
9 lascars—		by soldiers.
16 puckali bhistics—		by orderly men.
10 halalcure—		orderly men.
16 barrack sweepers—		defaulters.
12 latrine sweepers—		defaulters.
1 chowdhry—		regimental police.
2 peons—		orderlies.
1 bildar—		contractor.
4 filth-cart drivers—		contractor.
6 well bullocks and drivers—		orderly men and defaulters.
7 plunge-bath drivers—		none.

Lieutenant-Colonel G. W. Poget,  
Commanding 34th Regiment.

Tindals and lascars in quarters are employed in the care and preserv-  
ation of the camp equipage, clothing, necessaries, and general fatigue  
duties connected with the quartermaster's department.

Puckalis and bhistics look after water-supply.

Sweepers and bildars look after cleanliness of the barracks, lines, and  
general conservancy.

Kotwal, chowdhry, and mutsuddy look after the general supervision  
of the bazaar supplies and requirements.

Flagman and weighman (two chuprassies paid by Government) at-  
tend to bazaar duties.

Lieutenant-Colonel J. S. Hand,  
41th Regiment.

Moonshee	...	none at home.
Chowdhry and peons	...	by orderlies.
Puckalis	...	{ by orderly men of rooms and cooks from barrack pumps.
Lascars	...	
Sweepers	...	{ by men of each tent and baggage guard. by daily or permanent fatigue men under a non-commissioned officer.
Toties	...	
Latrines, &c.	...	{ emptied under warrant office contract under the barrack department. In some stations the soldiers are paid contract rates for removal.

The men cook for themselves, shave themselves; and their washing  
is done by the women of the regiment.

Lieutenant-Colonel T. W.  
Hughes, 54th Regiment.

Tindal and lascars—duties performed by troops, when camp equi-  
page is in use.

Puckalis and bhistics—by troops, conditions of water-supply being  
different.

Sweepers, company—by troops.

Sweepers, conservancy, as well as bildars and cart-drivers—duties  
one by contractors, conditions being different.

Chowdhry, mutsuddy, and flagmen—duties done by the troops.

Lieutenant-Colonel C. B.  
Knowles, 67th Regiment.

Bhistics to supply water to men. At home water laid on in  
barracks; carried to cook-houses by orderly men. Lavatories provided  
in all barracks.

Two dhobis.—Men's "washing" at home performed by the women  
of the regiment in wash-houses erected for the purpose.

Three toties.—At home latrines are emptied by contract.

Four sweepers.—Brooms and brushes supplied by control department,  
and the barrack-rooms and square swept and kept clean by soldiers.

Five Native cooks.—Soldiers' meals cooked by one or two men from  
each company, under superintendence of a master-cook—a non-commis-  
sioned officer trained at Aldershot. Cook-houses, fitted with ranges, are  
in close proximity to the men's quarters.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

Soldiers at home do everything for themselves except washing their  
clothes. That is generally done by the wives of their comrades.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

The whole of the work performed by the following, *viz.*, cooks,  
dhobis, bildars, mehters, tent lascars, and bhistics, is done by the men  
themselves, with the exception of washing, which in peace time is done  
by the women of the regiment. In the field and during the autumn  
manœuvres in England it is invariably done by the men themselves.

Major H. P. Pearson, 12th Foot.

**Puckalis and bhistics.**—At home water is nearly always laid on in barracks and camps, such as Aldershot, by pipes connected with reservoirs, or with the water system of the town. Where this is not the case, there are pumps in the barrack square.

**Sweepers.**—The men sweep, wash out, and keep clean their own barrack-rooms, furniture, fittings, and windows. Officers' servants (soldiers) do the same for their masters' quarters. The pioneers look after the barrack yards and drains and do all out-of-door work, assisted by the prisoners. The barrack latrines are usually connected with the main sewage system of the town, large permanent camps having sewage pipes of their own. At Aldershot these pipes lead to a model farm, where the sewage is utilized. The little work that is required in latrines is done by the pioneers, who also attend to the trenches in any temporary camp, the trenches having been dug by fatigue-parties. Ash-pits are periodically cleaned out by contractors.

**Cooks.**—There is a trained sergeant master-cook in every regiment at home, and one man a company as cook. The men are divided into messes; a "mess" usually consisting of the men of one room. The men peel their potatoes, wash their vegetables, and do all preparatory work; and the company cooks do the cooking under the superintendence of the sergeant master-cook. The meals are carried to the rooms by the orderly men of messes.

**Dhobis.**—At home the washing of a regiment is done by the soldiers' wives, who are paid by the men at the rate of  $\frac{1}{4}d.$  per diem each man.

**Syces and grass-cutters.**—Officers' chargers are attended to by grooms selected from the men of the regiment. Mounted officers receive forage allowance at the rate of  $1s. 10d.$  each charger per diem.

**Kahars.**—At home the sick are carried in ambulances, horsed.

For the removal of sick short distances stretchers are used. These are usually kept in guard-rooms, and are carried, when in use, by four men.

Major J. H. Campbell, 33rd Regiment.

**Bhistics**—by the soldiers.

**Sweepers**—by the soldiers.

**Toties**—by contract.

**Dhobis**—by soldiers' wives.

**Cooks**—by soldiers.

Major J. D. Dyson-Laurie, 34th Foot.

There being no followers at home, the duties are all performed by the troops.

Major J. K. Shaw, 68th Light Infantry.

**Cooks.**—At home there are two cooks per company, who are changed monthly and struck off all duties. These men are under the instruction and supervision of the sergeant master-cook and his assistant, who are trained at the School of Cookery at Aldershot. The meals are brought from the cook-house and divided by the "orderly men" of rooms or messes.

The experiment of men cooking for themselves has been tried at Dalhousie Convalescent Depot, and I do not see why it should not be the rule at all hill stations. The men cook for themselves in many colonial stations, which are hotter than the hills of India.

**Dhobis.**—The work is done at home by the soldiers' wives.

**Bhistics.**—Water is drawn or pumped, according to the nature of the barracks, by fatigue-parties or defaulters, or by individuals as they require it.

**Sweepers.**—The removal of soil is done by contractors. The conservancy arrangements of cleaning the seats and floors of privies, using disinfectants, and keeping drains in order, are done by the pioneers.

The sweeping and washing of rooms is done by the "orderly men"—a fatigue duty taken weekly or daily.

Major W. H. J. Clarke, 72nd Highlanders.

**Tent lascars.**—Tent not kept in regimental stores at home; served out to regiments when going into camp. The tents are looked after by the men themselves.

**Bhistics.**—Water laid on in every barrack-room. The men have to bring it for themselves for cooking and other purposes.

**Cooks.**—Cooking men of each company employed under the superintendence of a sergeant master-cook.

**Dhobis.**—Washing done by the wives of the married men.

**Sweepers and bildars.**—The barrack-rooms and barrack square kept clean by the orderly men and pioneers of each company. In most barracks now there are proper water-closets, and the above are cleaned by the conservancy belonging to the town.

The bazaar establishment, kotwal, &c.—Everything is sold in the regimental canteen, both in the way of eating and drinking. This is under the superintendence of a sergeant and the usual regimental committee.

	Description of followers.	Manner in which the duty is performed in England.
Major W. Galbraith, 85th Light Infantry.	Lascars	... } In camp by soldiers. Camp equipage is not retained by regiments in quarters or on ordinary movements by rail.
	Bhisties	... } Water-drains are laid on in most barracks; in some pumps are still used. Water-carts are supplied for flying columns. In all cases the troops draw for themselves.
	Sweepers*	... } By civilian contractors. Stable-litter is generally sold, and its value credited to the public; cook-house refuse is sold by regiments and the proceeds applied to the purchase of fatigue dress for the cooks. The contractors are paid for the removal of night-soil. The rooms are swept by the orderly men of companies, and the barrack-grounds are kept clean by fatigue-parties.
	Bildars	... } In camp the troops dig and fill in latrines and burn or bury all refuse.
	Cooks	... } By the troops. In barracks there are generally but two kitchens per regiment, furnished with large boilers, cooking range, &c. In camp the food is cooked in covered kettles, in field kitchens (arrow-head pattern) dug by the troops.
	Kahars	... By the ambulance train.
	Dhobis	... By soldiers' wives.

I may add that my regiment was under canvas for nearly two years at one time in South Africa, and that the whole of the duties performed in India by Native establishments were satisfactorily carried on by the soldiers.

Each man washed his own clothes. Water was drawn by the orderly men of companies.

Two soldiers per company cooked, and when marching formed part of the baggage-guard.

The pioneers looked after camp equipage, and fatigue-parties attended to conservancy arrangements.

Major G. S. White, 92nd Highlanders.

The puckali and bhistie work is performed by the soldiers themselves, taking the duty in turn in each barrack-room. As water is always laid on, they have little or no distance to carry it.

Sweepers and bildars' work is also done by the soldiers, the soil being removed in night-carts.

The soldiers cook for themselves.

The soldiers' wives do the washing.

This question seems to lead up to the consideration of how far the same system could be made to obtain in India. It ought to be borne in mind that the men actually employed, as above shown, are, to all intents, "followers" for the day or week—in fact "of parade." The attenuated parades of battalions at home could be largely accounted for under the head "Men absent on regimental employ." The training season in India is very short, considering the ever-increasing number of different kinds of instruction which a soldier has now to go through.

Captain H. M'L. Hutchison, 1-14th (Prince of Wales' Own) Regiment.

Men are found easily in every regiment to volunteer to perform every duty and all work that is required, a very few receiving extra pay.

## 8. Is the issue of cloth clothing for British troops necessary in all parts of India?

Colonel J. A. Ruddell, 1-25th Regiment.

I have only experience of certain stations in the North-Western Provinces, Oudh, and Punjab. I am of opinion that in these provinces cloth clothing is necessary.

Colonel H. R. L. Newdigate,  
Commanding 4th Battalion Rifle  
Brigade.

I believe that there are few, if any, parts of India where it is necessary, and that a yearly issue of serge clothing and two suits of khaki would be more beneficial.

I think that white clothing in summer should be discontinued and khaki substituted, which would also be available for marches and active service. Most regiments have adopted it; and having white clothing besides only unnecessarily increases the soldier's kit.

Colonel H. S. Cochrane, v.c.,  
Commanding 43rd Light Infantry.

Certainly the extremes of climate are great, even between day and night, in the same stations. I consider serge clothing a necessity in the hottest parts of India.

Lieutenant-Colonel T. Rowland,  
Commanding 1-5th Fusiliers.

I don't think it necessary in any parts of India. Serge clothing is much more suitable to the climate. The cloth is rarely worn.

Lieutenant-Colonel W. D.  
Tompson, 1-17th Regiment.

I should say not. At any rate the present system of issuing to every man of British infantry a cloth tunic and a pair of cloth trousers every other year, and a serge frock and pair of serge trousers on alternate years, might be altered with advantage. The cloth tunics are very little worn in any part of India, and are often as good as new when the men become entitled to a fresh issue. The cloth clothing would last good for three years, and an issue of serge clothing, with the usual compensation, on two consecutive years would be far more serviceable and be acceptable to the men.

Lieutenant-Colonel M. Macgregor,  
1-18th Foot (The Royal Irish).

Cloth tunics are not absolutely necessary for all parts of India, but should be retained as an article of full dress.

Cloth trousers are not necessary. Serge should be issued instead.

Lieutenant-Colonel A. Temple-  
man, 1-21st Fusiliers.

In all the stations (Madras) that I have been in cloth clothing is quite useless.

Lieutenant-Colonel Daubeny,  
7th Fusiliers.

Yes, cloth or serge. Although white clothing is principally worn in Bombay, even here a serge suit is necessary in the cold weather, at times during the rains, and for purposes of fatigue.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

In my opinion there are many stations in India, more especially in those below Allahabad, where serge clothing is far preferable to the very thick cloth tunics and trousers now issued.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

No; the serge clothing is sufficiently warm for all stations.

Lieutenant-Colonel G. W. Puget,  
Commanding 34th Regiment.

From my experience cloth clothing is quite unnecessary and is a great encumbrance. In the plains the tunic is not worn more than a dozen times in the year.

In point of economy, there would be a considerable saving if cloth clothing was discontinued.

	Rs.	A.	P.
A rank and file tunic costs	...	8	0 0
Cloth trousers	...	4	6 0
		<hr/>	<hr/>
		12	6 0
		<hr/>	<hr/>
Serge frock	...	4	4 0
Do. trousers	...	3	8 0
		<hr/>	<hr/>
		7	12 0

Difference between serge and cloth clothing  
rank and file

... 4 10 0

Or in a battalion 850 strong about Rs. 3,920.

As regards weight and transport on a march—

850 tunics and cloth trousers weigh about 4,320 lbs., or a load for nearly 11 camels.

I would suggest one suit of serge annually, one suit of serge extra every second year for best wear.

A regiment in the hills might be served with a waistcoat with sleeves made of navy serge.

Two pairs of drawers is to be kept by the soldier after first issue, or a waistcoat made out of an old serge. Then a small compensation might be made to the soldier.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

Certainly not in Southern India, where the cloth tunic is worn but twice a year, *viz.*, at general's inspection and on the 1st of January.

Lieutenant-Colonel T. W. Hughes,  
64th Regiment.

I think it unnecessary south of the Punjab.

Lieutenant-Colonel C. B.  
Knowles, 67th Regiment.

Certainly not in the Madras presidency, unless it is considered essential to retain the tunic as full dress on ceremonial parades. In Afghanistan



the men should have a cloth coat, but I should prefer to have it made loose, like the serge frock, so as to allow extra under-clothing to be worn.

I consider serge clothing is necessary in all parts of India.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

From my own experience I consider it necessary.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

Certainly not; in many stations it is absolutely useless and an expense. By doing away with it, the soldier would be enabled (with the allowance in lieu of it) to provide himself with summer clothing and other necessaries which he now pays for himself, while he is compelled to keep up an article he never wears. In fact, it is a question whether cloth clothing might not with advantage be done away with altogether in India and serge issued every year instead. A warm jersey might be issued in stations in Northern India, where at certain seasons the cold is severe.

Major F. S. Terry, 1-25th Foot.

I do not consider that cloth clothing is necessary in any part of India, either on the hills or plains, for British infantry. When serge is not warm enough, it can be supplemented with under-clothing, the two together being more suitable to a climate with rapid changes of temperature like India than cloth clothes, which cannot be worn with any comfort except when the cold is exceptionally great.

Major H. P. Pearson, 12th Foot.

No; I would abolish cloth clothing altogether for India, giving the soldier a fairly warm serge uniform with a woollen cardigan to wear under the coat and two pairs of warm drawers (for change): he would then be comfortable in any cold he could be called upon to serve in. The scarlet tunic is completely wasted in India. A new one is issued to the soldier whilst the one which has already been in possession two years is brand-new, in some cases not having been worn a dozen times in that period.

The cloth trousers issued to the men are not of good material.

Major J. H. Campbell, 33rd Foot.

My experience has only been in the plains of India, and there I consider cloth clothing not only unnecessary, but unbearable.

Major J. D. Dyson-Laurie, 34th  
Foot.

In lieu of cloth clothing, I would prefer a *good* loose serge capable of covering a cardigan vest, waistcoat, or underclothing, or of being worn alone according to climate.

Major G. K. Shaw, 68th Light  
Infantry.

I am not acquainted with the Madras presidency, but I consider serge clothing necessary in the cold weather in the other presidencies.

The present rule of giving a cloth tunic and cloth trousers one year, and a serge tunic and serge trousers on the alternate year, is, I think, a mistake. The cloth tunic and trousers are very little worn—only at church, inspections, and in very cold stations for walking out in the depth of winter; and I have seen cloth tunics after they had served their two years and become the man's own property in as good condition as the new ones issued to succeed them.

On the other hand, serge is worn on almost all occasions,—in the rains and cold weather, at drill, on fatigue, on guard, and walking out. It never lasts its full two years; and a man who wishes to look smart has to provide himself with another serge jacket at his own expense in the alternate year.

I would issue a serge coat and trousers for three years in succession, and a cloth tunic and trousers the fourth year.

Major W. H. J. Clarke, 72nd  
Highlanders.

Cloth clothing is necessary in all parts of India in which I have served.

I know nothing of the Madras presidency.

Major W. Galbraith, 85th Light  
Infantry.

No.—Cloth clothing is neither necessary nor wholesome. My experience is confined to Northern India, including the Punjab, where, even in hill-stations or during the winter season, the daily variation of temperature is very great. In such a climate, a closing-fitting tunic offers little protection from the heat, and admits of no addition to underclothing at nightfall, and is therefore objectionable on sanitary grounds.

The cloth trousers is equally unsuitable as a working dress. Its stiff unyielding material galls the thighs, which in dry weather are further irritated by dust scooped up at every step. In rain, the damp cloth dragging on the knee impedes movement, and in billy ground doubles the labour of marching. It is tenacious of moisture, and if once saturated, can with difficulty be dried.

Major G. S. White, 92nd High-  
landers.

My regimental experience in India has been almost entirely in the Punjab, where I think the issue of cloth clothing advisable, both as a protection against the cold and as its closer fit tends to keep up "smartness"—a word which to a soldier has a moral as well as a material significance.

Captain H. M'L. Hutchison,  
1-14th (Prince of Wales' Own)  
Regiment.

Yes, every man should have a cloth suit, because he is liable to be sent at short notice to places where it may be a necessity, but it need not be issued every second year.

Captain R. H. Fawcett, 33rd  
Foot.

Issue of cloth clothing seems unnecessary in Southern India. In the extreme south of the peninsula there is no cold such as is experienced in the north, and the light serge coat is sufficiently warm for any time of day, and even night, if worn, as it should be, over a flannel shirt. Very occasionally, in the course of sentry duty at night, a man might find himself chilly for an hour or two in this dress; but a light waistcoat, that could be worn under the serge coat, or an extra banian, would meet such occasional cases; and the tunic and cloth trousers being dispensed with, the soldier's kit would be lightened. The troops only wear their tunics on very special occasions, and then are generally knocked up for the day after a salute and march-past. It can hardly be worth while giving a soldier additional clothing to carry about merely to wear on the 1st of January or on occasional Sundays for the purpose of showing that he is in possession of it. With the present youthful regiments the lads frequently grow out of their tunics before they are worn out.

### 9. In what way can the uniform and equipment of the British army in India be improved?

Colonel J. A. Ruddell, 1-25th  
Regiment.

The havresack and water-bottle might be improved on in my opinion: the former by being made water-proof, and the latter should be large enough to contain at least 1½ pints. The sodawater bottle at present in use does not hold enough water. During the hot weather I consider khaki might be substituted for white clothing.

Colonel H. S. Cochrane, V.C.,  
Commanding 43rd Light Infantry.

Zouave costume, because it is loose and would save the carriage of different clothing, as, being loose, flannel shirts and drawers could be worn underneath for cold weather and night duties. Gaiters could be worn or not according to the climate.

In the Punjab, North-West, and Sind cloth and khaki drill could be worn; in Bombay, Madras, and Lower Bengal serge and khaki.

Lieutenant-Colonel T. Rowland,  
Commanding 1-5th Fusiliers.

I cannot think of any improvement in either.

Lieutenant-Colonel W. D. Tomp-  
son, 1-17th Foot.

The men of the 1-17th Regiment are still equipped with the old pattern knapsack and accoutrements of twenty years ago, and I propose retaining the present equipment until the Oliver pattern has been finally reported upon, with a view to getting the battalion so equipped. The valise equipment is admittedly a failure.

The uniform of the British army in India is undoubtedly susceptible of improvement in many ways. As a member of a committee of which Brigadier-General Tytler was the president, and which assembled at Safed Sang, Afghanistan, in May last, to consider and report upon the best dress and equipment for field service, I submitted a separate report embodying my own and the opinion of several other experienced and practical officers on this subject. This report was forwarded to Simla by the president. I wish to add nothing to the remarks therein expressed. I retained no copy.

Lieutenant-Colonel M. Mac-  
gregor, 1-18th Foot (The Royal  
Irish).

By discontinuing compensation, and by issuing a serge frock and serge trousers annually, and a cloth tunic and trousers biennially. This would give great satisfaction to the men, who on joining from England are nearly always dissatisfied on account of the difference between the Indian and home systems of clothing. The suit of white clothing issued to men coming to India is practically useless, the material and make being different to that used in India. Instead of this suit, which is issued on embarkation, I suggest a suit of khaki or field service clothing being given to the men immediately they join regimental headquarters.

The men's belts should be made of brown leather instead of white.

Lieutenant-Colonel A. Temple-  
man, 1-21st Fusiliers.

The pouches at present worn on the waist-belt are very objectionable, on the score of its being difficult to take cartridges out of them, *i.e.*, loose cartridges when the pouch is partly empty; and loose cartridges rattled about in a hard case are of course liable to damage. I would suggest that the expense pouch on the belt should be a *pliable* bag, offering no difficulty to the fingers in picking out single cartridges.

The chief fault that suggests itself to me of the uniform issued to the infantry in India is the extremely bad way in which it is cut and made up. Gaiters appear to be desirable as a protection from spear-grass and thorns, and to prevent grit and gravel getting into the boot. They

also in a way convert the trousers into knickerbockers, getting rid of the drag on the knees when wet; and they also protect the trousers, which get soon shabby from being wetted with dew or otherwise and then covered with dust. Hard drill or fine canvas would answer, fastened by loops.

The helmet seems to me the worst shape of head-dress for protecting the head (at least its most vulnerable part) from the sun. The sides of the head and nape of the neck are exposed. The brim is shorn off where most required, from the temples and over the ears. If the helmet is large enough to be pressed down on the head, the vision is limited. I am out in the sun a good deal myself, and find a broad-brimmed hat with air-chamber arrangement and a pugree the best protection from the sun.

Lieutenant-Colonel Daubeny,  
7th Fusiliers.

I think it is unnecessary to issue tunics to the men as often as at present. The soldier seldom wears his tunic; and, generally speaking, when the time arrives for the issue of the new tunic, the old tunic is as good as if newly issued from the stores. I therefore suggest that the tunic should only be issued every four or five years, which would be a saving for the Government and for the soldier, provided he received a suit of serge in other years. The soldiers would welcome the change; for they require a serge every year, and in the years when they receive a tunic they have to pay for the serge themselves.

If not too expensive, I would issue belts of brown leather (the same as is used for saddlery) instead of the present kind, as it has always appeared to me absurd to issue belts which on active service cannot be kept clean. The waist belt should be broad, so as to afford support.

The canvas of which the valise is made might be of better quality, and the composition which covers it might also be improved on, as now it quickly cracks, and in a short time the valise ceases to be waterproof.

I consider the cut of the present serge to be ill-adapted for service, and would substitute a kind of Norfolk jacket, drawn in at the waist by a band and furnished with two or three pockets.

As the traditions of our army point to the retention of red, I would issue a great-coat made of heather mixture, to be made lighter than the present coat, and to be waterproof. The coat would wear well, be admirable for concealment, and could be used for outpost work, &c.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

I would suggest, as regards uniform, that the present thick cloth tunics and heavy winter trousers be discontinued in India, and serge frocks and trousers as now issued be substituted. In those stations in Upper India and the Punjab where it is considered desirable for the men to have a warmer dress, I consider a good puttoo Norfolk jacket, made sufficiently large to be worn over the serge, would answer admirably. If warmer trousers are requisite than the serge, I consider loose puttoo breeches and puttees would be suitable as well as economical.

The present valise equipment seems to answer fairly well; but I have not yet seen the Oliver equipment, which is, I believe, now on trial at home.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

As it cannot be predestined where the British army in India may have to act, and a general state of preparedness being incumbent upon it, I do not think any local change on these points advisable or called for; though I would suggest that, as sudden emergencies may arise, certain rules might be promulgated in anticipation to save delay; these rules showing definitely what portions of uniform or equipment are to move with the battalion in first line, according to its orders being to proceed north, south, east, or west, or even what portions could be left behind altogether.—I allude to the quantities of white clothing, khaki clothing, serge clothing, cloth clothing, black bags, kit bags, and valises in possession of the British soldier.

Lieutenant-Colonel G. W. Puget,  
Commanding 84th Regiment.

The ball bag at present in use is unserviceable. When a man lies down to fire, his ammunition falls out. I would suggest a waterproof cover for the helmets.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

Do away with the tunic. I think the valise equipment well adapted for India, though valises would have to be carried for the soldier during most seasons of the year.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

I think an annual issue of serge coat and trousers more useful than the alternate issue of serge and cloth clothing in all stations south of the Punjab.

For summer, khaki seems to me preferable to white drill. It can now be obtained of Indian manufacture with a fairly fast dye, which greatly obviates the former objection to its use in peace times.

In regard to equipment, I see no benefit in supplying the soldiers in India with either valise or knapsack.

He parades a few times during the cold seasons in heavy marching order and for the general's inspection; but I have never seen nor heard of his carrying his pack on service or on the march.

He is already provided with a small canvas bag and a "valise bag" in which to carry his kit; and the encumbrance of the valise or knapsack and the expense of providing it are counterbalanced by little advantage, save the traditional connection between the soldier and his pack.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

No suggestion with regard to uniform.

In the valise equipment an improved method of carrying the expense pouch (the ammunition bag) is much required.

Water-bottle too heavy for quantity of water carried.

Havresack too large.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

I would recommend the water-bottle (sodawater shape) being discontinued, a flatter one being substituted.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

In equipment, by the issue of the "Oliver equipment," which seems to meet all requirements and to be a considerable improvement in every respect on the present valise equipment.

The water-bottles now issued are on service almost useless, being too small and liable to break. Tin water-bottles similar to those worn by the Rifle Brigade during the recent campaign, but covered with felt instead of flannel, which could be done at a trifling cost, would be a great improvement. They are light, hold a quart of water, and from their shape fit into the body, and are in every respect better than the old leather-covered bottles now issued.

By the issue of a bell-tent, double fly, curtain three feet high, doors to overlap well, poles to be jointed—each tent, with the poles, *baltis*, and lantern to be one mule load, and made large enough to hold 20 men. The *baltis* to be made of block-tin, and a lid deep enough to be used as a basin. A small lamp giving better light than the present one and made to fit into the *balti* might be devised.

Warren's cooking-pots would be an improvement on the present *degchi*, or, at all events, vessels of block-tin, flattened on one side so as to fit a mule, would be better than those now in use.

Entrenching tools.—Equal numbers of spades and shovels, and all tools to be sharpened before issue.

Every man to be in possession of a water-proof sheet, which should be wider than those recently issued, so as to be utilized as a shelter tent; eyelet holes to be further from the edge than at present, so as to lap over.

Staff sergeants, buglers, and pioneers to be armed on service with revolvers.

In dress, by the adoption for one thing of Hawkes' patent cork helmet instead of the wicker helmets now being issued to the troops, which is more unsightly, heavier, and, as it becomes old, is a most successful species of bug-trap. The cost of the cork helmets is Rs. 5. In a battalion which brought them to India, and in which they have been in wear for nearly six years, they are still in good condition.

As Rs. 4 (compensation) is paid every two years, no saving is effected by the use of the wicker helmet.

I have seen both tried for a number of years in India, and can speak with confidence on the great advantages possessed by the one I recommend.

I write the above on the supposition that the wicker helmet is the one now sanctioned for use in India.

Cotton shirts should be done away with, and flannel only issued. Khaki, if a suitable and permanent dye can be found so as to avoid different colors after each washing, might be substituted for the white clothing issued in the summer.

It would be a considerable saving in point of pocket to the soldier, and would also reduce the size of his kit—a matter of some importance on the march.

Major F. S. Tarry, 1-25th Foot.

I am of opinion that the peak of the regulation helmet is made to lie too close to the forehead, whereby the circulation of the air round the temples is much impeded, occasioning discomfort and danger in hot weather. Both peak and the curtain of the helmet interfere with the firing, standing and lying-down positions, by reason of their being made to lie too close and low. Efficiency in this article of dress is of great importance in India.

*Boots.*—My experience leads me to think that the British soldier in India is heavily handicapped in marching by the excessive stiffness and weight of his boots. This is a point of the very first importance in dress. A soldier subjected to unnecessary fatigue is prone to discontent, and soon goes sick; and I have no hesitation in asserting that on a march more fatigue is due to the boots a man wears than to the weight he carries, if only properly distributed.

*Ammunition.*—The weight of this in India, where the valise is carried for a soldier, is thrown on the waist and hips; but I think it would be better if it could be shifted at will to the shoulders by connecting straps at the back as well as in front.

*Water-bottle.*—For India a quart of water is required in my opinion; though the men should be taught to drink as little as possible on the march. The tin water-bottle used in the Native army in India, covered with coarse flannel or felt, is lighter and better adapted for service than the leather-covered sodawater bottle issued to British troops.

*Bayonet.*—The present pattern cannot be used by itself as a weapon of offence, as the socket makes a bad handle. This, I am of opinion, is a great defect: a good handle, as in the sword-bayonet, is necessary. For service in a close country I would recommend the issue of a dagger to every soldier for use in an emergency, especially skirmishing and on convoy duty.

*Clothing generally.*—Commanding officers are not, in my opinion, held sufficiently responsible for cutting down the clothing of the men to fit tight, contrary to regulation. It is not uncommon to see the clothing of a whole regiment spoilt for service by tailoring, while the commanding officer is praised for its smartness of appearance, which under our present system of supervision is so often accepted for real smartness. Surely all advocates of appearances whose opinions are worth having would allow that those appearances should be built upon, and be additional to, *efficiency*, not supplanting or detracting from it, in however trifling a degree?

Major H. P. Pearson, 12th Foot.

I will deal with the query as regards men's uniform in answering the next question.

The soldiers' equipment might be improved in several items. Brown leather belts should take the place of the present pipe-clayed ones, and "the expense pouch" should be abolished in favor of "bandoliers," like those worn by the Bhopal Battalion in the late campaign. These were not fitted on to the coat, but on a sort of waistcoat, with neck and waist straps. They were thus removable at will. Twenty rounds might easily be carried in two rows of five each on either breast; twenty more might be carried on the waist-belt; ten on each side of the clasp.

The sodawater bottle covered with leather, which the soldier now carries, is objectionable in several ways. It is heavy in itself, holds exceedingly little, is of bad shape, and brittle, and, if struck by a bullet, would probably wound its owner very severely, even if the shot missed him.

In its stead should be given a tin water-vessel covered with thick felt, much the same as those used by the Afghan troops, and left by them in great numbers at Ali Musjid.

Sashes should be abolished throughout. Officers should wear the "Sam Browne" sword-belt in brown leather, with small binoculars fitted to it. On service, a revolver (with heavy bullet) should also be carried on the belt and a small ammunition pouch.

Metal scabbards for swords should be replaced by wooden ones, covered with leather and tipped with metal.

Officers should wear bronzed curb-chains on the shoulders in lieu of the gold cord now worn.

Major J. H. Campbell, 33rd Foot.

As regards the uniform, a serge frock and pair of serge trousers should be issued annually and no cloth clothing. The soldier should be required to keep two suits of serge always in his possession—one for every-day work and the other for full dress. The difference in value between the tunic and serge frock might be expended in making the latter rather smarter by a little more piping and the cuffs the same color as the facings.

Major J. D. Dyson-Laurie, 34th Foot.

The tunics are hardly ever worn in India, except for church parade and the general inspection.

Major J. K. Shaw, 68th Light Infantry.

I think every soldier should have a pair of leather leggings, as at home. The want of them is felt in the rains and on service.

Major W. H. J. Clarke, 72nd Highlanders.

I think that brown leather should be used for the equipment of the British army in place of the present white belt.

Instead of the present red serge coat, a loose easy coat in the shape of a Norfolk jacket of some drab or grey color would be a great improvement. The red serge coat is not fit for service.

The present havresack is not fit for service. It cannot stand the wear and tear. I should recommend some stronger material than that now used.

I should say the material used by game-keepers in the bags used by them to carry cartridges would be good, if it could be made up somewhat light. The material is called "tan canvas."

Some better means of carrying ammunition on service are very desirable. The present pouch is heavy and cumbersome, and will not contain the quantity of ammunition required. The men have to carry ten rounds of ammunition in their haversacks.

I have not seen the Oliver equipment; but I should say it would be a great improvement.

Major W. Galbraith, 85th Light Infantry.

Time does not permit me to enter as largely into the question of personal and regimental equipment as I could wish. I would, however, suggest—

(1) *Equipment.*—That each regiment should carry with it, on mules, 24 pickaxes, 24 shovels, 4 crowbars, 16 felling-axes, and 48 bill-hooks, which would be sufficient for all ordinary demands.

(2) The issue of a service pouch, in lieu of one of those at present worn, made on the pattern of a "sportsman's belt," but closed beneath to prevent the bullets becoming loose, and capable of holding 10 separate cartridges. In the ordinary pouch loose cartridges deteriorate, and are liable to fall out if the soldier doubles or lies down to fire; and it is important, especially on escort or night duty, that they should be always ready to hand.

*Uniform: clothing.*—Extra serge clothing should be issued instead of cloth (see answers 8 and 10).

*Boots.*—The sewing of the ammunition boot is too loose. Dust and sand work in between the stitches, and the foot is engrained with dirt and galled. The upper leather is too stiff, and impedes the action of the ankle.

Major G. S. White, 92nd Highlanders.

This is a big question, to which I have not applied the special study which would justify me in recording an opinion. Under the head "equipment" I would mention the unwieldy nature of some of the trenching tools in present use.

The pickaxe is, without handle, about eleven pounds. One of half the weight would produce double the effect in the hands of an average soldier. The shovels are also a great deal too heavy. It would be true economy to have both made of better materials. The saving in carriage is evident.

10. Would you recommend the issue of a service suit of clothing made of cheap and durable material to be worn on service in the field, instead of the present uniform?

Colonel J. A. Ruddell, 1-25th Regiment.

Yes, I would recommend the issue of a strong suit of khaki-color material for service with puttees for the legs. Officers to wear the same, with sword-belts of buff leather of the pattern known as "Sir Sam Browne," with khaki haversacks, leathern scabbards for their swords and field-glasses; also water-bottles as served out to the men. Mounted officers to wear puttees also, with regulation hunting spurs.

Colonel H. S. Cochrane, V.C., Commanding 43rd Light Infantry.

The Zouave dress, with a couple of flannel shirts and drawers, would be quite sufficient.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

Yes; I think without exception every regiment in the late war adopted khaki. A khaki suit, made of strong drill and loose enough to go over the serge clothing, suits any climate.

Lieutenant-Colonel W. D. Tompson, 1-17th Foot.

It would depend a good deal on the character and locality of the intended campaign. I maintain that true economy points to clothing and equipping a soldier at all times in a dress suited to his duties in the field as well as in quarters, or in one at all events requiring only slight modification to adapt it to the exigencies of modern warfare. I have remarked fully on this question in my report mentioned in answer 9.

Lieutenant-Colonel M. MacGregor, 1-18th Foot.

I strongly recommend the issue of a suit of this description of clothing, not only for field service, but for all regiments. Some arrangement might be made for the issue of a suit annually by Government. The value of the cloth trousers which are not actually required might be advantageously expended in this way.

Lieutenant-Colonel A. Templeman, Commanding 1-21st Fusiliers.

I would substitute a stronger material for the *white* clothing usually worn and a dull color. The serge clothes seem to be useful.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

I consider the every-day dress of the soldier should be such as is fit for service in the field. And if the present serge is not (either from color or other causes), the sooner it is abolished the better.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

I am decidedly of opinion that the issue of a suit of the description I have alluded to in the last reply would be desirable on service.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

In replying to this, I would refer to what I have stated above; for internal warfare or moving into the hills in the spring I would recommend the issue or rather the maintenance of a strong suit of khaki clothing, under which one or two flannel shirts and cholera-belt can be worn. This class of clothing is already in possession of many British regiments in this country, worn by them for the purpose of saving their serge and white clothing. Instructions in the new tactics imposed by the present infantry arm demanding much kneeling and lying-down upon the part of the soldier, it thus becomes a question how far white clothing should be retained for the sake of appearances, or yarn-dyed khaki be substituted for the sake of utility.

Lieutenant-Colonel R. Cuthbert,  
Commanding 2-15th Foot.

Yes.

Lieutenant-Colonel G. W. Puget,  
Commanding 94th Regiment.

I am of opinion that a suit for service would be very advisable as a matter of economy to the soldier; material puttoo.

Lieutenant-Colonel J. S. Hand,  
44th Foot.

I would recommend annual issue of a suit, as suggested in the question, to be worn on all ordinary duties, parades, &c., in cantonment as well as on service in the field, and a biennial issue of the red serge frock for review, parades, guards, &c.

Should it be considered necessary to retain the tunic, a six-yearly issue would be ample in Southern India.

I would have the trousers of the coarse suit made of the same material as the coat, loose, with khaki canvas gaiters. The suit, too, should be khaki color.

Even if compensation, as at present, was given to the soldier, the Government would be the gainer if some such system of clothing were adopted.

Lieutenant-Colonel T. W. Hughes,  
64th Regiment.

For campaigning in the plains, nothing can be better than a suit of English jean, khaki colored. It can be made up, including helmet cover, for about five rupees.

This would not supersede the serge suit for night duties.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

I consider in hot or temperate climates the troops should carry serge suits in their kit, and should receive a marching suit made of *strong* drill, procurable at the mills at Cawnpore. The drill to be of khaki color.

The coat to be provided with breast-pockets, similar to those in Norfolk jackets: outside pockets catch the lever of the rifle.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

Yes, and one pair of puttees.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

Most certainly; the present uniform is on service unsuitable in color, shape, and material. A Norfolk jacket, something similar to that worn by the 10th Hussars (than which nothing can be neater or more workmanlike), would be a very great improvement. It should be made with great pockets outside with flaps; and as it is gored in front of the shoulder, it gives freedom to the chest, while the pockets are not only useful, but add materially to the comfort of the soldier on service; whereas with the present uniform he can carry absolutely nothing. The color should be khaki, and in material either serge or puttoo. Trousers of the same color and material should be issued, and puttees. Two suits would be ample.

Major F. S. Terry, 1-25th Foot.

Yes, khaki-dyed cotton drill; and that it should be cut loose enough to go over the serge clothing in cold weather and be permitted to be worn as a fatigue dress in quarters.

Major H. P. Pearson, 12th Foot.

I would have a "service" suit to be worn everywhere, not alone in the field. The first thing every regiment does when ordered on service in India is to provide itself with a new uniform of that color which is universally allowed to be the best for fighting purposes—"khaki." I would do away with scarlet altogether, except as a ball dress for officers. The color is retained in the British army in obedience to sentiment and in defiance of reason. We have survived the extinction of the "wooden walls of old England," and scarlet uniform should follow them. The conditions of an Indian climate demand a warm uniform as well as a cool one. Both should be of khaki, and there should be no other.

The cold-weather uniform should be a loose fitting Norfolk jacket of the same kind of material as is worn by the Central India Horse, but more of a khaki color.

Trousers of the same, cut fairly, but not too loose above the knee, and to fit the calf of the leg below.

Gaiters of brown flax cloth, like those worn by the men of 11-9th Royal Artillery (Mountain Battery).

Such a dress, supplemented by the warm cardigan and drawers recommended in my reply to question 8, would meet the requirements of any cold climate.

For the hot weather in India the existing uniform answers. It should, however, be khaki; and I should prefer the Norfolk jacket to the present coat as being smarter in appearance. Trousers not cut for a gaiter should be worn, because cooler.

The shape of the helmet might with advantage be altered to afford more protection to the temples and back of the neck.

For field service in a very cold climate like Afghanistan, a Balaclava cap and mittens for night work should be issued.

Major J. H. Campbell, 33rd Foot.

No; I think it unnecessary. If, on a regiment being ordered on service, two or three suits of white clothing per man are dyed, it will answer the purpose.

Major J. D. Dyson-Laurie, 34th Foot.

White clothing of good drill for cantonments, which should be dyed khaki for service.

The coats, in both cases made not too skimp or tight, as is so often the case, should admit of under-clothing and be of Norfolk jacket cut, without waist-band, with regimental buttons and stand-up collars and ordinary sleeves.

Belts to be of brown leather.

The ammunition to be carried on the waist-belt, which should have supporting shoulder straps. Loops for cartridges for immediate use, as are worn by the Guides, are excellent.

Good havresacks, gaiters, and water-bottles should replace the present indifferent ones, which are not suited to service.

Havresacks to be stouter and stronger in material, but of present pattern.

Gaiters to be of brown flax with studs, as supplied by Waukenphast, Haymarket. These are cooler and as waterproof as the leather.

Water-bottles should be round with convex sides; size as used in 4th Goorkhas; material termed "ebonated" as supplied by outfitters at home, but the size of which is too small.

The soda-water bottles covered with leather are too small and easily broken.

Metal corrodes and is undesirable.

Major G. K. Shaw, 68th Light Infantry.

I think the serge coat and trousers the best for field service, with a couple of khaki-colored coats of drill, made like Norfolk jackets, large enough to go over the serge jacket. One of these will keep the serge clean and give some additional warmth when a great-coat would be too hot, and in warm weather the khaki might be worn alone.

Major W. H. J. Clarke, 72nd Highlanders.

No. That is, if, as I suggested in answer No. 9, a loose easy coat, in the shape of a Norfolk jacket, of some drab or grey color, was issued in place of the present red serge coat. Under the above circumstances, the present uniform would be quite serviceable.

Major W. Galbraith, 85th Light Infantry.

Yes. It should consist of—

- (1) a helmet cover;
- (2) a puttoo coat, shaped like the red serge, with breast-pockets outside;
- (3) a pair of puttoo breeches, loose at the knee and reaching four inches below the calf;
- (4) a pair of Kashmir or other light woollen puttees.

A similar suit of yarn-dyed khaki drill should be issued for marching in hot weather.

The cost of the whole of the above would be provided from the difference between price of cloth and serge clothing, any surplus being given to the soldier in white clothing.

A second issue would only be required in the event of active service, when it would be given in lieu of the annual serge suit.

I particularly urge the substitution of breeches and puttees for trousers on account of the protection they afford from dust and dirt, the support given to the leg by puttees, and the ease with which they are dried after a wet march.

If the above service dress be adopted, the annual red serge coat might be somewhat improved in quality of material and richness of color, so as to provide a dress suitable for wear in review order.

Major G. S. White, 92nd Highlanders.

Yes. I think that something of a Norfolk jacket, under which the soldier could wear more or less under-clothing according to the requirements of climate, would be much more suited to campaigning than the smarter and closer fitting dress suited to peace time, and which is not adaptable to different conditions of temperature. Khaki is generally recognized as the most serviceable color. It does not show work quickly, and is admirably adapted to prevent the movements of men wearing it from attracting attention in the field.

I would strongly recommend the grant of some small sum to a few selected commanding officers, for actual experiment, before any pattern



or material is finally fixed upon. The relation between work and suitable dress is a close one.

Captain H. M'L. Hutchison,  
1-14th (Prince of Wales' Own)  
Regiment.

Yes, made of jute, not drill. This with the serge jacket (to be worn at night) would suffice for a short campaign if not too far north.

Captain R. H. Fawcett, 33rd  
Foot.

No, I think the uniform the troops have always with them should be suited for service. That might be of a cheap and durable material. If objected to as not showy, I think that the sight of troops perfectly equipped and ready for the field at a moment's notice is the true show which would be appreciated by those acquainted with military matters. If to gratify the eyes of ladies and others, a glittering dress is thought requisite, let that be a uniform to be left behind on entering into a war, but let us always have a uniform suitable for hard service in general use.

If the proposal means a khaki or similar color, I am of opinion that the distinctive scarlet worn by the British soldier is one of the valuable points in his uniform, because it enables friendly bodies to recognize one another quickly and easily. One of the most dangerous and unpleasant things to happen, and which I believe do occur far more often than is reported, is that of troops of the same army firing upon one another in mistake for the enemy. Short as the fighting was in Afghanistan, there were two cases which came to light of mistakes due to uniform not being sufficiently distinctive. Major Anderson, of the 23rd Pioneers, is said to have mistaken the Afghans for his own men at the Peiwar Kotal, and to have thus lost his life. In the Khyber Column an instance of British troops firing on their own men was reported in the newspapers. In Europe khaki, as it would be a completely distinctive dress, might be valuable; but in this country, where our enemies are generally clothed in dirty cotton clothes, it is as well to avoid a dress that makes friends undistinguishable from foes.

### 11. Can you suggest any economy in such matters as lighting of barracks, punkah-pulling, barrack furniture, bedding, &c., or in any other item of supply, &c.?

Colonel J. A. Ruddell, 1-25th  
Regiment.

No, I am not prepared to do so.

Colonel H. S. Cochrane, v.c.,  
Commanding 43rd Light Infantry.

I do not think lights after 10 p.m. at all necessary; there might be one or two small lights according to the size of the barrack-room. Men of a company ought to be trained to lamp-lighting, and by being told off for that might place their lamps at night so as to be able to light them at once if required.

Lieutenant-Colonel T. Rowland,  
Commanding 1-5th Fusiliers.

In bedding only, return to the old system of giving a warm quilt (only give it biennially instead of annually): it is much preferred to the mattress now issued. This would save the expense of the constant stuffing with straw, charges for soap, &c.

Lieutenant-Colonel M. Macgregor,  
1-18th Foot.

The expense of lighting, punkah-pulling, supplying barrack furniture, and bedding could not practically be reduced.

Lieutenant-Colonel A. Templeman,  
Commanding 1-21st Fusiliers.

I may allude to the system of punkah-pulling by machinery adopted in the Madras hospital.

Lieutenant-Colonel Daubeny, 7th  
Fusiliers.

I do not know if any cheaper way of lighting barracks can be found than at present. Gas, however, when available, would be an improvement as regards light.

(b) Punkah-pulling is, I think, carried on cheaper by cooly labour than it could be in any other way. I think it depends much on the season whether punkahs are necessary, and some years they might be dispensed with.

(c) In towns where there is an organized system of water-supply, and the pipes pass within reach, water should be laid on in cook-houses and all places where required, and the services of bhisties be dispensed with.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

The present system of lighting barracks with kerosine oil appears to answer very well, and I do not think a cheaper oil is desirable.

In the matter of punkah-pulling some saving might be effected by calling on commanding officers to send in returns and estimates about three months before the hot weather sets in, in place of committees assembling (as is now the custom) while the punkahs are still hanging. Should the estimates be rendered about the time I propose, arrangements would by that time probably be made for sending some men to hill stations for the ensuing hot season, and fewer punkah coolies would therefore be required.

As regards barrack furniture, bedding, and other supplies, I do not think a more economical system than the present could be introduced.

Lieutenant-Colonel D. Warren,  
Commanding 2-11th Regiment.

The barrack rooms are not sufficiently lighted at present to enable men to read or write at night, even were they inclined to do so, which I very much doubt, as the recreation and reading rooms are well lighted and answer all purposes. The present mode of lighting with kerosine oil is not only expensive to the State, but also to the soldier, from breakage of glass and burners; this independent of the cost of the oil. There is also an element of danger. Therefore, as a matter of economy in the lighting of barracks, I would recommend the common oil to be used in the ordinary soldiers' barracks, latrines, &c., and that the present number of lamps be continued.

Lieutenant-Colonel G. W. Puget,  
Commanding 34th Regiment.

I cannot suggest any measure of economy in lighting barracks at this station, supply of punkah-pulling, and khus-khus tatties.

I am of opinion that there would be a saving to Government if the coolies for these services were provided by the commissariat department, as from the eagerness displayed by contractors in tendering therefor, I am convinced it must be a lucrative undertaking.

Machinery should eventually supersede hand labor for punkah-pulling.

Barrack furniture and bedding—I have nothing to suggest. Other items of supply—I think there would be a saving to Government if helmets were supplied direct by the clothing department, as if Government undertook the supply for the whole army, it would be able to enter into advantageous contracts.

By the present system of issuing the biennial allowance in advance, many men receive the allowance who proceed to England during the subsequent trooping season.

I am further of opinion that the helmets with ordinary care (give a water-proof covering) should last three years, but then the ordinary covers and *puggies* should be renewed free annually.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

Can offer no suggestions. Punkah-pulling is quite unnecessary in some southern stations. I allude to Secunderabad and Theyetmyo. Very few officers use punkahs at these stations, and they are an unnecessary expense to Government.

Regimental workshops might be more utilized for making furniture than they are at present, and, though they could not compete with the native, the material and workmanship would be far superior and more durable.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

Lighting is conducted at present as economically as is expedient. I should like to see the barrack-rooms much better lighted, as this has an undoubted effect in keeping men from bazaars and other mischief.

The present plan of punkah-pulling is, I fear, an expensive but unavoidable evil.

As to the present cost of barrack furniture, I have no data. The quantity is in no way too liberal. Probably bedding could be more satisfactorily supplied by regimental arrangement than as at present drawn in kind.

Lieutenant-Colonel C. B.  
Knowles, 67th Regiment.

No suggestion.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

No.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

The present system of lighting the barrack-rooms is such an immense boon to the soldier, adding so materially to his comfort, that I do not consider it would be desirable to make any reduction in the number of lamps, nor would it be advisable to replace kerosine with common oil, although the latter would effect a considerable saving; but a stronger and better protected light might be used with advantage, the present one being easily broken and costly. It would be better also if the reservoirs for the hanging lamps were made of metal (like the wall lamps) instead of glass as at present. With regard to punkah-pulling, I believe a saving might be effected by more careful supervision of labor, the number of men employed in many cases being in excess of the actual requirements.

Major H. P. Pearson, 12th Foot.

In the matter of punkah-pulling, yes; but I have already anticipated this in my reply to question 5. Barracks are now well lighted, but the scale of lamps is certainly not excessive. Furniture and bedding are good, but there is no extravagance in the supply.

A considerable sum of money might be saved annually by abolishing prizes for gardens and workshops. The idea under which these rewards were initiated was excellent, but in practice it has never been fulfilled. I would always encourage gardening and voluntary workshops, but not by giving prizes.

Major J. H. Campbell, 33rd  
Foot.

No; unless punkah-pulling can be performed by machinery.

Major J. D. Dyson-Laurie, 34th  
Foot.

Not in the plains.

Major G. K. Shaw, 63th Light Infantry.

I think one department should supply all the barrack furniture, &c. The supply is divided in Bengal between the public works department, the commissariat, and the ordnance department, and in Bombay there is a barrack department besides. This division causes trouble, and no doubt expense, and is regulated on no system. For instance, a soldier's kit-box is supplied by the public works department, and the padlock for it by the ordnance department; a Macnamara filter is supplied by the public works department and the cask to put it in by the commissariat; a common filterstand by public works department and the earthen vessels for it from the commissariat. Lamps are supplied by the commissariat, rods for hanging them by the public works department; tatties by the commissariat, punkahs by public works department, &c.

Major W. H. J. Clarke, 72nd Highlanders.

I cannot.

Major W. Galbraith, 85th Light Infantry.

It would be a very great addition to the soldier's comfort to have barracks better lighted than at present; economy in this respect cannot be effected until it is possible to employ gas or some other illuminating power more cheaply than oil.

Punkah-pullers cannot be dispensed with while troops summer in the plains; but I think it possible by mechanical aid to increase the power of each puller and so enable a reduced establishment to perform the work.

Major G. S. White, 92nd Highlanders.

I believe the allowance for lighting barracks with kerosine lamps to be very liberal, but I hesitate to recommend economy in this, as an ill-lighted and dismal barrack-room lends additional attraction to the brightness and conviviality of the canteen.

I think it would be economy to fix the punkahs more universally in trains. It costs little to do so, and would greatly decrease the establishment of punkah coolies. I have seen in staff sergeants' quarters five or six punkahs taking 15 or 18 coolies, which, if fixed in trains, might have been worked with a much smaller establishment.

Captain H. M. L. Hutchison, 1-14th (Prince of Wales' Own) Regiment.

Except where there is gas, I don't think barrack-rooms are at present too brilliantly lighted. It would be very difficult to economize here. Oil-lamps are trimmed and lighted by the soldiers themselves.

12. Could not petty barrack repairs and maintenance of barrack furniture, &c., be provided for regimentally, by fixing a maximum allowance within which the officer commanding might sanction expenditure?

Colonel J. A. Ruddell, 1-25th Regiment.

Yes, I think so; but on the understanding that suitable workshops were provided, and that the regiments remained in a station for 18 months or so.

Colonel H. S. Cochrane, V.C., Commanding 43rd Light Infantry.

I do not think this could ever be satisfactorily done. Commanding officers would never be satisfied with the state of the quarters they had to take over.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

Yes, I think it might be done with advantage. I have in some instances done this on a small scale, such as painting and whitewashing.

Lieutenant-Colonel W. D. Tompson, Commanding 1-17th Foot.

Generally speaking, I think they could, that is, so long as a regiment was stationary in quarters.

Lieutenant-Colonel M. Macgregor, 1-18th Foot.

I think not. Regimental labor is so much more expensive than native, that the allowance would always be exceeded, and it is so uncertain in the hot weather that there would be great delay in the performance of repairs.

The plan was tried in my battalion in 1876, and signally failed.

Lieutenant-Colonel A. Templeman, 1-21st Fusiliers.

I think so, and with advantage. The artificers, too, in a regiment could do much of the carpenter's and smith's work, the wood and iron being provided by the engineer or public works department, as the procuring of these of good quality is in some places a great difficulty.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

Wherever an entire regiment was quartered, and there was sufficient accommodation to establish workshops, there would be no difficulty; but there might be in small stations occupied by only one or two companies, as there might not be sufficient skilled labor in the battalion to keep open two or more workshops.

The repairs, I think, could be done cheaper by the soldiers than by the Natives, as the soldier would not be dependent on the work for his living.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

I believe it would be best to give the work (under certain restrictions) to the lowest bidder, regiments being encouraged to compete, as I believe it would be difficult to fix an allowance for the work on a scale sufficiently elastic to meet the cost of material at all stations.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

I think this suggestion might easily be tried in regiments that have a sufficient number of artificers and skilled workmen, and I believe in many cases the work, if properly supervised, would be more satisfactorily and economically carried out in the long run.

Lieutenant-Colonel R. Cuthbert,  
Commanding 2-15th Foot.

There is no reason why all the barrack furniture and fixtures should not be repaired under this proposed arrangement; there is little work done now in regimental carpenter's shops, and I believe it would afford means of healthy employment for the artificers. Agreeing with this proposal, I, however, foresee that certain difficulties may arise, and have to be provided for in connection with the taking over and handing over the barrack furniture so repaired.

Lieutenant-Colonel G. W. Paget,  
Commanding 34th Regiment.

Yes, with advantage.

I consider the present system the best and more economical than if a fixed allowance was placed at the disposal of commanding officers, for regimental workshops cannot compete with Native labor.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

I hardly think it would answer.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

I think this might be made to work advantageously; but more on the ground of an outlet for the employment of soldiers, and of expedition and general convenience than of economy. I do not consider that work executed in regimental workshops is cheap, nor do I think that regimental authorities would go to the Native labor market with any advantage over the public works department.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

All repairs to barrack furniture could be done regimentally, and I think the proposed arrangement would prove very satisfactory; but one scale would not answer at all stations. Barrack damages at Madras, owing to the sea air, are very heavy.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

I think it might in the case of barrack furniture, if issued first of all in thorough good repair.

Major F. Stephen, 4th Battalion  
Rifle Brigade.

Yes, this might be done, and with advantage.

Major F. S. Terry, 1-25th Foot.

I am of opinion that, if a percentage of the savings out of the maximum allowance for petty repairs were allowed to the regiment to assist the payment of barrack damages charged against the men, the plan would succeed. A completion certificate by the executive engineer as a guarantee for efficient workmanship would be necessary. But, speaking generally in reply to the question as it stands, I should say the proposal would not answer, as either the repairs would be ill-done, or the maximum allowance would always be expended.

Major H. P. Pearson, 12th Foot.

Undoubtedly; and I think such an innovation would have good results. I think the annual white-washing, painting, and lettering of doors, punkah-hanging, and work of this nature might be undertaken by regiments at public works department rates. It would afford healthy occupation to the men, not involving exposure.

Major J. H. Campbell, 33rd Foot.

I think not. Few commanding officers know the cost of material and the wages of the labor market. If it is proposed that the repairs should be carried out as far as possible in the regimental shops and by soldiers, I believe it would be found more expensive than by employing Natives, as, although the soldier would repair better and in a stronger manner, the Natives would combine to force up the price of material so much as to entirely outbalance the cheapness and better workmanship of the soldier.

Major J. D. Dyson-Laurie, 34th  
Foot.

I think that it could; only in India the soldier is indifferent to workshop employment.

Major G. K. Shaw, 68th Light  
Infantry.

If by "regimentally" is meant by the labor of the men themselves, I apprehend difficulty from the small number of tradesmen now in the ranks. Skilled workmen will not enlist now, and my regiment, which is recruited in mining districts, has scarcely a carpenter or painter in it. If, on the other hand, it is meant that the commanding officer should execute the repairs by Native labor, I think there would be even more waste than there now is under the public works department, as the commanding officer, not having the same knowledge of the market rates of labor, &c., would be more imposed on.

Major W. H. J. Clarke, 72nd Highlanders.

They could, and I think that all petty repairs to barracks and furniture could be well carried out regimentally—better, cheaper, and more quickly in every way than under the present system, and also more to the satisfaction of the regimental authorities. In fact, at most stations, the 72nd Highlanders have done a good deal of work for the barrack department.

Major W. Galbraith, 85th Light Infantry.

No. Few commanding officers would be able to judge of the necessity and amount of repairs, and the rates at which payment should be made. Even if fully competent to undertake such work, a commanding officer has already ample employment in looking after the health, equipment, training, and discipline of his men.

Major G. S. White, 92nd Highlanders.

If the barrack furniture were handed over in good order, it could be cheaply kept up regimentally. Under the present system some slight break takes place which is not noted till next month perhaps, and not mended until double the damage has supervened for want of the stitch in time.

Captain H. M'L. Hutchison, 1-14th (Prince of Wales' Own) Regiment.

No, I don't think it would work well. Commanding officers might possibly differ with their predecessors regarding furniture, work, &c., taken over.

Captain R. H. Fawcett, 33rd Foot.

I think most of the petty barrack repairs, &c., could be done in the regimental workshops, and are in fact frequently so undertaken. If the commanding officer had a sum of money with which the men could be paid for their work on its completion, one source of dissatisfaction and consequent slack work by soldiers would be removed. There is nothing the British soldier seems to feel more than that money is due to him, and that he is, as he puts it, kept out of it. This is specially the case when working at roads, where the payment is often kept so long in arrears that the men feel half-hearted about the work; and similarly regimental workshops would be more popular with soldiers if the payment could be more immediate. If a regiment were held responsible for keeping up the barracks in good repair by the men themselves, it would aid to make it more self-dependent.

13. What do you consider to be results of experience in the working of the medical and hospital system, as practised generally in India and during the recent operations in Afghanistan?

Colonel J. A. Ruddell, 1-25th Regiment.

That the new system has worked satisfactorily; but I am of opinion that one medical officer should be on the strength and always remain with each battalion.

Colonel H. R. L. Newdigate, Commanding 4th Battalion Rifle Brigade.

Unsatisfactory: the system under which medical officers are being constantly changed is not conducive to the good of the regiment. The orders to be obeyed by medical officers, whether departmental or regimental, do not seem to be accurately defined.

During the recent operations doolies and kahars were frequently sent to, or removed from, the regimental hospital without my knowledge; and I think that all orders with respect to Native establishments, whether hospital or not, should be conveyed through the commanding officer.

Colonel H. S. Cochrane, v.c., Commanding 43rd Light Infantry.

I have not had any experience.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

I think, taking it in the abstract, the system was successful; but the details during the war were very faulty. Once a man was admitted into the field or base hospital, all trace was lost of him, very seldom any return being sent of his transfer from one hospital to another; discharge, &c., and kits, arms, &c., were constantly lost.

Lieutenant-Colonel W. D. Tomp-son, 1-17th Regiment.

Except during the recent operations in Afghanistan, I have had experience of the regimental system only. We have in the 1-17th hitherto been particularly fortunate in our medical officers and senior medical subordinates, and the system in quarters has worked comfortably and well.

The recently adopted hospital arrangement for field service was not carried out during the recent operations without considerable friction.

Energetic advocates of the system have tried hard to prove it a complete success at the expense of the fighting portion of the army. Regiments were indented upon to furnish hospital clerks, hospital sergeants, hospital orderlies, in large numbers. At Lundi Kotal the 1-17th Regiment had at one time 23 trained soldiers doing orderly duty in the hospital which might have been equally well

done by men not equally fit to carry rifles. The regimental hospitals were denuded of medicines, instruments, and of the medical subordinates to an inconvenient extent. All the hospital establishments were under-handed in the subordinate grades, and although in theory the field hospital was intended to be divisible to any extent, in practice it was not so.

Lieutenant-Colonel M. Macgregor,  
1-18th Foot.

The system of working hospitals in India is generally good. I suggest the general hospital system being adopted instead of the regimental, as a means of greatly reducing expenditure. For instance, at Ferozepore, where there is a British infantry regiment, and two batteries of artillery, there might be one instead of two distinct hospital establishments. There are 62 Native hospital servants attached to each British regiment, when 40 would suffice. This is in addition to 12 purveyor servants who could easily do the work for all the troops.

I cannot give an opinion about the working of the system in Afghanistan.

Surgeons should be kept attached to their own regiments, even if the general hospital system is adopted.

Lieutenant-Colonel A. Templeman,  
1-21st Fusiliers.

As regards the medical system, the constant changing of medical officers from their charge appears a very undesirable arrangement as compared with those officers being permanently gazetted to corps.

Lieutenant-Colonel Daubeny, 7th  
Fusiliers.

The medical and hospital system, as practised in India, works well, and the soldier is comfortable; but I consider there would be a great saving if separate hospitals were abolished, and the sick of every regiment, European and Native, treated in one central hospital, as then only one establishment would be needed. The soldier would also benefit in one way, as the younger medical officers would be kept up to the mark, by supervision and contact with others more learned than himself. I would attach a medical officer to each regiment, who should move with it from station to station, and at other times he should work under supervision of the station staff.

Lieutenant-Colonel G. F. Walker,  
Commanding 1-12th Foot.

I cannot say that I consider the new system of a general or field hospital is any improvement on the regimental system; nor do I think it has worked satisfactorily in the Khyber pass, where my regiment has been stationed for the last four months.

Lieutenant-Colonel D. Warren,  
Commanding 2-14th Regiment.

My experience of the working of the medical system in India is that it is fairly good in comparison with that which obtains at home.

The surgeon-major is sufficiently permanent to become acquainted with those who have to fall under his care; harmonious working between the regimental and medical authorities has time to develop itself. As regards the junior medical officers, a more permanent connection between them and the corps with which they are doing duty appears desirable.

The hospital system appears to be excellent.

Applying the question to the recent operations in Afghanistan, I am unable to reply.

Lieutenant-Colonel G. W. Puget,  
Commanding 34th Regiment.

I am of opinion that the hospital system works well, everything being provided for the comfort and recovery of the patients.

The hospital equipment for small parties on the march is unnecessarily large and costly. The stores of clothing are seldom unpacked; the servants are seldom wanted; and as the railways offer facilities for sending sick men to the nearest hospital, the cost of carriage and the wear and tear of transport of unnecessary articles might be saved.

I am of opinion that the present medical system contrasts very unfavorably with the old system, the present system being injurious to regimental interests, by the liability of constant changes of medical officers.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

The regimental hospital acts well in time of peace; but on service in the field the general hospital system, with one medical officer attached to each regiment, is both for economy as well as efficiency the most desirable.

It would be advantageous and, I think, economical to do away with the double system of apothecaries and hospital sergeants, as well as orderlies, by employing the army hospital corps in India.

Lieutenant-Colonel T. W. Hughes,  
54th Regiment.

These experiences seem to me to point to the re-establishment of regimental hospitals and medical officers; while at certain stations large general hospitals should be established and kept up in *personnel* and *matériel*, so that they might furnish the divisional hospitals in the field. Into these general hospitals might be drawn from time to time the men to be invalided from regiments to England, thus keeping regiments as free as possible from impedimenta.

I am strongly of opinion that the medical officers who have so much to do with the comfort and welfare of a regiment, ought to belong to it.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

There has scarcely been a system in operation on which to give an opinion. The regimental one has not been abolished, nor has the base and station hospital system been properly established.

There are many reasons, I believe, why the old regimental system should disappear; but I am of opinion that under the new one medical officers, not knowing their patients, would not take the same interest in them as the regimental surgeons did.

I should like to see one surgeon gazetted to a regiment and remain with it for five years. He would soon become acquainted with the men; and they would have more confidence in him than in an entire stranger. Of course, he would pass on all serious cases to the base or station hospital.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

Major F. Stephen, 4th Batta-  
Hon Rifle Brigade.

Favorable.

I think, on the whole, it worked well; but owing to the nature of the country, had the troops marched much, it might have been difficult for a base hospital to have accompanied them, so that perhaps a general hospital, supplemented by a regimental one, might be an improvement. There should, however, be an army hospital corps, as the present system of suddenly drawing non-commissioned officers and privates (who are probably new to the work) from regiments, where their services are urgently required, only leads to confusion and does not ensure the men best fitted for the position of hospital sergeants and orderlies getting these appointments.

Major F. S. Terry, 1-25th Foot.

I am of opinion that the regimental system of medical and hospital organization, as practised in India generally, has a cramping effect on the development of the efficiency of the department, injurious to regimental interests.

I am of opinion that the duties of a medical officer are those of general service and not particular to any corps. He should, therefore, be classed as an officer of the general staff, and be interchangeable in stations under the orders of the senior medical officer approved by the commanding officer of the station.

In the recent operations in Afghanistan the garrison system was adopted in the Khyber column, and the great advantages of it over the regimental system were, I believe, fully recognized.

There is only one point about it to which I should wish to refer, and that is that the medical officer appointed to the regimental charge would probably be the junior of his rank; this being naturally and even necessarily the case, it seems to me that his inexperience disqualifies him for independence in such a responsible position. He would also, generally speaking, be deficient in influence with the regimental authorities.

Under these circumstances, I conceive that the senior medical officer of stations (not being the deputy surgeon-general), should be the responsible officer for all regimental questions of hygiene, the junior officer in regimental medical charge being merely his irresponsible deputy in these matters.

The visits of the senior medical officers of stations to regiments should be of such frequency as to enable him to keep under observation all details of hygiene connected with them.

Commanding officers should have both official and unofficial access to their sick in garrison hospitals: the former by pre-arrangement made through the station staff officer; and the latter at the ordinary visiting hour fixed by the medical officer for all private visitors.

In the Khyber column, I observed that men detained sick for the day were allowed to return to their company tents against the hospital regulations, on the ground that no tent was allowed to the hospital for these men. The practical effect was a large increase of non-available men for duty and a falling-off in the efficiency of the regiments concerned owing to the impossibility of sufficient observation of the cases. A rule requiring commanding officers to supply tents to the regimental hospital according to the numbers detained for observation is required.

Major H. F. Pearson, 12th Foot.

I consider that the abolition of the regimental system is a very grave mistake. In olden times, when doctors belonged to a regiment, they knew the habits, constitutions, and previous history of the officers and men under their charge—an obvious advantage in treating disease. They attended a man through his illness, and had the whole responsibility of his case. Now a patient may be treated by half a dozen doctors in as many days, none of them having ever seen him before, possibly each holding different views as to the treatment of the case and adopting different cures. In such circumstances, what sympathy can there be between the doctor and his patient, and how can the latter feel that confidence which so often largely contributes to recovery?

The regimental system kept the sick of regiments and batteries apart from each other, and therefore in many small bodies. The general hospital system collects all these small and isolated bodies into one central spot. The experience of years teaches us that, in a great majority of epidemics of cholera, the hospitals have furnished the earlier cases presumably because the sick are more prone to that terrible scourge than the healthy. That it is believed to be communicable is evident from the measures invariably adopted to shake it off—dispersion and isolation; and I fancy few will be found to contest this theory.

Yet, in the face of this fact and this almost universal belief, we deliberately adopt a system which exposes all the sick of a force or garrison to the same danger, and deprives them of that chance of escape which, in smaller bodies, they would have.

On service, when regiments are actually moving about, a field hospital is a necessity, because it relieves corps and batteries of the incumbrance of their sick. But as soon as standing camps are formed, the field hospital should be broken up and the regimental system again resorted to.

There appears to be no reason why a proportion of medical officers and subordinates with tents, medicines, doolies, &c., &c., should not be detached by regiments and batteries to form a field hospital when such a measure is necessary.

The field hospital, or general hospital, system may be more economical than the regimental, but it does not work well in practice. At least such is the inference to be deduced from what has happened here at Lundi Kotal, where, after long trial, the field hospital was broken up and the system of regimental hospitals reverted to.

Major J. D. Dyson-Laurie, 84th Foot.

Along the Khyber route the soldiers were not fond of leaving their regimental hospitals for treatment in field and base general hospitals; and the necessary transport of wounded officers and men for treatment to distances immediately after undergoing excitement, fatigue, and wounds, I feel sure, cannot be otherwise than injurious.

Major W. H. J. Clarke, 72nd Highlanders.

In my opinion the old regimental system is the one that works best, both in quarters and on service. By this system the medical officers of a regiment come to know the men, understand their constitutions and habits, which in illness or epidemic must be of great advantage and therefore they are able to give more particular attention to any man who from constitution, debility, or other causes may require extra care.

Whereas in a general hospital none of the medical officers know any thing about the patients previous to their admission. Another thing is, the medical officers are frequently changed, and the same officer does not attend the patient throughout his illness.

In the present system there never seems to be available medical officers to send with detachments. I have at present two detachments away from head-quarters, consisting of two companies each, in charge of medical subordinates.

One has not been able to judge of the working of the field hospital on service in Afghanistan, as, since it was formed, no active operations have taken place, but in my opinion all the doolies, &c., being under care of the medical officer in charge of the field hospital, and which are all to be collected in some one spot, would never work. Regiments that have been fighting might and most likely would be long distances from the places selected, and therefore in the first place it would be not only most difficult to find the spot, but in the meantime the men wounded would have to remain in some instances for long periods on the battlefield before they could be removed.

I have also heard, and in some instances know, that there is great difficulty in procuring medical comforts for the men by the present arrangement.

Now in the mutiny, when the regimental system was working, I never heard of any complaints.

Major W. Galbraith, 86th Light Infantry.

The regimental hospital system, as carried out in India, is popular with the soldiers, who like to be treated near their comrades and friends. Its practical advantages were more marked while regimental medical appointments were permanent than now, when surgeons are liable to be moved at any moment. During about three months at Lucknow six medical officers successively were in charge of my regiment, the result being that from their want of experience of the habits, characters, and constitutions of individuals, malingering became possible, and serious illness was sometimes disregarded.

There seems little doubt that a system of general (garrison) hospitals affords great facilities for checking expenditure, and can be worked with greater economy than a number of separate regimental establishments; but in most cantonments, the centralization of hospitals would



involve the erection of new buildings at a cost far exceeding any possible gain from subsequent retrenchment.

Whatever the system adopted in quarters, active service imperatively demands the concentration of medical resources in divisional, base, and field hospitals.

During the first months of the Kuram campaign, though base hospitals were formed, each corps had its own field hospital with an unwieldy establishment of followers, camp equipage, and medical comforts, on a scale in accordance with the requirements of a possible maximum of casualties by wounds and sickness.

On 29th November, the several hospitals were brought together at Peiwar, and on 4th December, the wounded having been sent back to Kuram, the regimental system was resumed and remained in force until the end of March.

It then seemed probable that our further advance for at least four marches would be opposed, and that we should have to save ourselves from our advanced base at Alikhel, and it was at once apparent that if every regiment must be hampered with the care of its own sick and wounded, the force would be much less efficient than if the hospitals could be massed in charge of a portion of the column, leaving the remainder free for action.

A divisional hospital was therefore formed for British troops, and was organized in four sections, each complete in all respects, and ready, if required, to accompany a detached brigade at a moment's notice.

One medical officer was detailed to remain with each corps, and was allotted a small quantity of appliances and medicines, a tent for the temporary reception of urgent cases, and three doolies; the remaining establishments and supplies being taken up for the divisional hospital and ambulance corps.

One immediate result was a reduction of 40 per cent. in the carriage required for hospital camp equipage and equipment, and in purveyor's stores and establishment, provision being made for the possible average of casualties throughout the column, instead of, as previously, for the possible maximum of casualties in each of its units.

Preparations were also made to form a Native divisional hospital, but the project was abandoned in consequence of the difficulty of nursing and cooking for men of many different castes without the aid of their comrades. This difficulty should be carefully considered before our next campaign.

14. State your views as to the efficiency of the arrangements in cantonments and on field service for the transport of the sick, both in *personnel* and *matériel*, and give any practical suggestions which may occur to you as likely, if acted on, to improve efficiency or reduce expenditure.

Colonel J. A. Ruddell, 1-25th Regiment.

The arrangements for the transport of the sick in cantonments and in the field, as far as I have had experience, have worked fairly. I am not prepared to suggest any improvements. The medical officers of the army will no doubt be able to do so.

Lieutenant-Colonel T. Rowland, Commanding 1-5th Fusiliers.

I don't think in cantonments anything more efficient or less costly than the doolie can be used. In war I think mule carriage (for mountainous countries) and ambulance for the plains, when there are good roads, might be combined with the doolie, with good effect both as to efficiency and economy.

Lieutenant-Colonel M. Macgregor, 1-18th Foot.

I think the arrangements for the transport of sick are good. I am informed by the medical officer in charge of my battalion that the old pattern doolie is far better than any of the new ones, being more comfortable for the sick, lighter and forming a bed at night. Burke's and other new pattern doolies are so complicated and troublesome to fix together that the kahars are puzzled, and the doolies get out of order.

Lieutenant-Colonel Daubeny, 7th Fusiliers.

In cantonments and in the field the transport of sick is in great measure effected by doolies and by doolie bearers, a comfortable but slow and expensive means of conveyance.

In cantonments and on the ordinary line of march I would suggest a light ambulance cart for horse draught to be used whenever practicable.

Lieutenant-Colonel G. F. Walker, Commanding 1-12th Foot.

I have no suggestions to make on this head; it seems to me that the present mode of transport for the sick is almost the only feasible one in India. The light dandies now in use in the Khyber Pass seem well adapted for the purpose.

Lieutenant-Colonel G. W. Puget,  
Commanding 34th Regiment.

It appears to me that the transport of sick and wounded in doolies, carried by six bearers (four to carry, two in relief) is unnecessarily heavy and expensive.

The doolie is so close to the ground that the occupant suffers greatly from dust. The heavy curtains exclude air.

I think a net hammock cot suspended from a bamboo pole, connected with the pole, an oblong frame over the hammock cot with canvas water-proof curtains, as a protection from sun and rain, would be better and lighter; it could be carried by three bearers (instead of six) quicker, and with greater comfort to the occupant.

Light spring carts, with high wheels, built on European principles, with either mule or bullock draft, would, I think, be an improved method of transport.

Lieutenant-Colonel J. S. Hand,  
44th Regiment.

Nothing could be worse than the two-wheeled bullock sick cart in use in the Madras presidency. It is only fit to pick up men on the line of march who fall out from sore feet or other slight causes. Men suffering from serious ailments have been known to walk in preference to sitting or lying in the carts. Any carriage conveyance for sick should be four-wheeled. There is no conveyance like the doolie, the bearers for which should be enlisted and armed, and then attached to the hospital establishments under the control of the army hospital corps.

I would suggest the organization of a "bearer corps" in connection with the transport service, to be utilized not only for the transport of sick, but also hospital stores and such other supplies as may be deemed necessary.

Light doolies, munchedels, or dandies should be specially constructed. Mules are neither economical nor suitable for transport of sick. The forage for a mule (not including grass) would be about equal to the rations of six men. I make now mention of cooking utensils, &c., since, with a properly organized corps, the weight of each individual share would be unworthy of notice, and I have experienced that in coolie corps the men always made their own arrangements for carrying their cooking pots in addition to their authorized loads.

Lieutenant-Colonel C. B. Knowles,  
67th Regiment.

The arrangements in cantonments I consider satisfactory.

For field service, I would recommend that a corps of trained doolie-bearers be kept on a permanent establishment so as to be ready when required.

I am of opinion that a good serviceable light doolie is still a desideratum.

Lieutenant-Colonel G. H. Parker,  
92nd Highlanders.

In cantonments good, but in the field most of the doolies are too heavy. Dr. Hamilton's is, I think, the best. The kahars are in many cases almost useless.

Major F. Stephen, 4th Battalion  
Bible Brigade.

A lighter doolie than the one now in use would be an improvement in time of war—a proportion of doolie-bearers to be done away with and mules substituted for the carriage of men only slightly wounded or slight cases of sickness. Three mules only require one attendant, while a doolie requires six men and one mule.

Major F. S. Terry, 1-25th Foot.

I would wish to suggest that all kahars employed for the transport of sick should be not below a given standard of physique and strength, and that, in common with all other followers, they should be formed into organized companies and sections.

Each set of kahars should be taught to obey No. 1 of his set. In war the sets would be broken up into cadres, filled up with hired kahars to the extent deemed necessary, or fresh complete sets would be intermingled with the trained ones.

In peace the men should be regularly engaged, and their pay should be fixed at a rate somewhat higher than at present; the difference, however, being handed over in a lump sum on discharge in lieu of pension on completion of a stated period, or on completion of several distinct periods of service.

No stoppages of pay as a punishment should be allowed. Their work and the hours of work should be carefully regulated to prevent misapplication or excess of work.

That they should be drilled and daily practised in carrying doolies, weighted, in order to preserve their capabilities unimpaired.

On the march they should never be allowed to carry any portion of their clothing or cooking utensils in the doolies.

In the Khyber column I frequently observed a misuse of the doolies to the detriment of the service, clothing and refreshments being carried in them for officers and men instead of their being kept in unquestionable readiness for sick men.

*Additional Remarks.*

I beg to suggest that there can hardly be a wider field for economy than in the thorough systematizing of the hygiene and disciplinary medical treatment of British soldiers.

To clothe, feed, house, and train them so as to develop the best condition of physique as well as to counteract depressing influences in climate, and ill-managed exercise which tend to the deterioration of their physique. It is in these matters that there is still room for improved efficiency, and hence economy. First, I would bring to notice that the principle of selecting men for change of climate to the hills, and other benefits of the same nature, induces amongst them an unseen but baneful competition for such selection.

A private soldier of about thirteen years' service once said to me that it was generally considered amongst the men to be a good thing for their future prospects in the second term of service to have men invalided to the hills and to have the record of it in their medical history sheets. I believe this to be a widespread feeling which requires checking.

I would suggest that the drafts of the year from England should be sent to the hills, immediately on arrival, to season for upwards of a year.

There they should be formed into *instruction battalions* under selected regimental officers and non-commissioned officers.

That men invalided from their regiments should be sent to some other station on the plains (irrespective of presidency) considered most suitable to their disease, and where at the same time their services could be better utilized than on the hills.

Should a greater change be absolutely necessary, they might be sent to the Cape or Mediterranean stations; but, until they become time-expired, very few should be allowed to go to the hills or home to England.

If the drafts sent out from home were first sent to the hills to season, I am of opinion that the general average of health in British regiments would be much improved.

If this plan were adopted, I would then further recommend that regiments should be kept in India for twenty-five years, their linked battalions remaining at home. Changes amongst the officers and non-commissioned officers would be by roster in both battalions taken together subject to the modifications of voluntary exchanges, and amongst the men by drafts of recruits coming in and time-expired men going out.

A colonel commanding a British regiment in India some years ago told me that at Agra he had received a draft of some two hundred weedy-looking boys. They were pronounced in the regiment to be utterly unfit for service in India, and he himself did not expect to be able to make anything of them.

Shortly afterwards the regiment was ordered to Ranikhet, and it was there he pointed out to me several specimens of the same draft, the whole of which he told me like those I saw had under the wonderfully favoring influence of the mountain air of the Himalayas turned out as fine a set of young soldiers as could well be desired.

Reverting to the consideration of the first paragraph of these suggestions, I have, in the replies to the Commission's questions, made a few remarks in regard to clothing. In regard to feeding, I would invite attention to the curried peppery masses of dried-up lean meat which forms the daily food of our soldiers in India; to the issues of beer at 10 and 12 o'clock in the day consumed on empty stomachs; to the dram of spirits taken neat in the evening. Is there no room for economy in all this?

In regard to housing witness the barracks, draughty and hot in the hot weather, and ill-ventilated for cold and wet weather. Much attention has been paid to the subject, and great expense has been incurred on account of barracks. I am aware it is only unfortunate that the subject of ventilation should have been so little understood until recently. We see long narrow buildings with doors and windows exactly opposite one another. The wind blows through in one direction, in the monsoons generally too strong, cold, or damp to be agreeable: but there is no choice between leaving open or shutting the doors and windows between draughtiness and no ventilation.

The walls of thin heat-conducting material, roofs of the same. Punkahs only nominally worked. Floors and foundations which draw the poisonous gases of the ground into the buildings.

All the above are defects existing in stations in India where I have served.

For ill-managed exercise: in one regiment of British infantry we hear of daily morning drill for every man throughout the year; in another, not only of none, but of parades even a minimum. Are the results of such striking differences investigated and allowed a due

weight in the general regulations of the service, or are regiments left practically to their own desires except for one annual inspection?

I have frequently heard of medical officers interfering to limit the amount of work performed by the men; but has the department practically taken up the question of ensuring that a necessary amount of daily exercise or labor is performed? I think not; and yet it must be allowed by all that the latter is a *sine qua non* to health and strength everywhere.

Major H. P. Pearson, 12th Foot.

The service is efficiently performed in cantonments, but I am of opinion that a lighter and more serviceable doolie than the old pattern one might be introduced with advantage both there and in the field.

Much more care in the selection of kahars for field service is needed than was exercised before the late campaign. Many men were sent up as kahars who confessedly had never carried a doolie in their lives; some of these were brought up from the Madras presidency. A considerable proportion of the kahars who accompanied the Peshawar Valley Force were wretched creatures at the outset, and quite unfit from one cause or another to carry a doolie. Some were aged and infirm, some suffering from disease. Many died in the field, and before the campaign had begun a fortnight, the base hospital at Peshawar was crammed with them.

Railroads and roads have, as a necessary consequence, diminished the breed of kahars, and it would be quite impossible to find men of the old stamp in sufficient numbers for an extensive campaign. But at all events, able-bodied men might be selected for the service of the sick, especially when such high wages were offered as was the case in the late war.

Major J. D. Dyson-Laurie, 34th Foot.

The doolie is the most comfortable mode of conveyance for an injured or sick man with which I am acquainted.

Major W. H. J. Clarke, 72nd Highlanders.

I think the arrangement in cantonments is all right.

But in the field they are very far from it.

The only improvement I can suggest is a lighter doolie, but still strong enough to stand the wear and tear; the present one is very heavy, almost useless, in hill warfare, and lighter ones lately invented will not stand the work.

Major W. Galbraith, 85th Light Infantry.

Nothing can be more unmilitary in appearance than the straggling line of doolies manned by struggling kahars, which ordinarily represents the hospital of a British regiment on the march in India.

Since the opening of cart-roads to the hill stations the doolie has no *raison d'être*, its discomfort is so great, that the patient, if able to drag himself along, will get out and walk to escape from its abominable motion and close atmosphere, thick with dust raised by the bearers' feet.

For the transport of sick in the plains, I suggest the introduction of a four-wheeled, covered ambulance wagon 12 feet long and 6 feet wide (inside measurement), with four moveable seats, two on each side, each 6 feet long, 18 inches wide and 18 inches high.

The seats should have double planks, so that on being taken up and laid across from side to side, they would form a bed of the same size as the floor of the wagon and 16 inches above it.

Each wagon would contain ten patients sitting, or four lying down, the latter having their mattresses and bedding, the former their blankets folded to sit upon.

Assuming that two-fifths of the patients must be carried in a recumbent position, and that three-fifths can travel sitting up, we should require eight wagons for fifty patients, *viz.*, five wagons each carrying four sick, and three wagons each carrying ten sick.

The comparative cost of carrying 50 patients for one month in doolies and in wagons is as follows:—

	Rs. Per mensem.
50 doolies—	
require 300 kahars, at Rs. 7 ... ..	2,100
6 mates, at Rs. 9 ... ..	54
	<hr/>
Total cost ...	2,154
	<hr/>
8 wagons—	
require 32 hired bullocks, at Rs. 15 each ... ..	480
	<hr/>
Monthly balance in favor of wagons for every 50 patients ...	1,674
	<hr/>

The difference between the original cost of doolies and wagons would soon be covered by this economy, and the wagons would be extremely useful in case of any sudden *emeute* or disturbance requiring the immediate despatch of a small force to an outlying district, when each would take 12 or 14 men with arms and accoutrements, and would disembark them even in the hottest weather comparatively fresh and ready for immediate action.

In case of operations across the frontier, the wagons would be available to aid in bringing supplies as far as cart traffic might be practicable.

When the Kuram force crossed the frontier, British corps were supplied with eight doolies and two dandies, and Native troops with two doolies and eight dandies for every hundred fighting men.

Doolies having six and dandies four Kahars each, with a few spare men, and one mate to every fifty, one class of followers alone numbered more than half as many as the fighting men of the

column, thus adding enormously to the demands upon the commissariat and transport departments for food supplies.

The rate paid for carriage of food from Rawal Pindi to Kuram was Rs. 9-6-0 per maund, so that including free rations, pay, warm-clothing, and transport from distant stations in India, each kahar has cost the State about Rs. 18 per mensem since the commencement of the campaign.

Meanwhile, a large number of those first entertained were so useless that they had to be sent back to their homes.

To supplement the sick transport camel *kajawahs* were ordered in October, and mules were on several occasions employed for patients who were not too ill to ride.

As far as I can recollect, the *kajawahs* did not arrive till February; they were then tried with Native troops, and I can state from personal enquiries that the patients invariably preferred them to dandies.

With regard to the above arrangements, I am of opinion that when a force operates at such a distance from its base that it may be obliged to carry forward its sick and wounded, as would have been the case had the Kuram force crossed the Shutargardan, their sick transport should be provided for at least 14 per cent. of its total strength.

If such transport is furnished exclusively by kahars, they will number nearly as many as the fighting men, and, being generally worse clothed and sheltered, they will probably have as many sick. If these are carried, we shall be in the anomalous position of having to feed and defend a large and costly establishment which will be incapable of rendering us any service in return.

I would therefore suggest that, in all active operations beyond the limit of cart-roads, sick transport be provided as follows for every hundred fighting men, *viz.*—

4 Doolies of a lighter pattern than the standard pattern.

3 Selected camels, each carrying two *kajawahs*.

4 Selected mules for patients well enough to ride, and capable on an emergency of carrying two wounded men in *kajawahs* a short distance, so as to be utilized in action.

The only equipment required would be one strong surcingle of ordinary girthing material for each mule, with a piece of stout *nawar* sewn by its centre to the surcingle above the mule's wither. The patient's blanket folded and laid above the straw pads of the mule would form a comfortable saddle, kept in its place by the surcingle; and the loose ends of the *nawar*, tied above the front of the saddle, would form loop stirrups of any desired length.

The suggested establishment would provide carriage for 14 per cent. of the entire force, and, when compared with the present arrangements for the transport of only 10 per cent., presents an economy in expenditure, sufficient to outweigh any objection that can be raised to its introduction. A glance at the following figures will show the justice of this assertion.

*Comparative statement of the cost of carrying 10 per cent. of British troops in doolies and 14 per cent. in the manner suggested.*

		Ten doolies require 60 kahars and one mate.	
System "A" ...	{	Each kahar costs	Rs. 18 a month.
		61 kahars cost Rs. 61 × 18, or	1,098 "
		4 doolies require 24 kahars and one mate.	
System "B" ...	{	25 kahars at Rs. 18	Rs. 450
		3 camels (carrying 6 <i>kajawahs</i> ) at Rs. 15	45
		4 mules at Rs. 13	52
		Total cost of carrying 14 men	547

Comparing these totals, we find that system "B" gives 40 per cent. more carrying power than system "A," with a reduction of over 50 per cent. in expenditure. Taking a larger instance, the Kuram force at present contains 3,700 European troops. I am therefore probably within the mark in estimating that, taking the average of the eight months from November 1878 to June 1879, the total strength of British regiments and batteries in the Khyber, Kuram, and Kandahar columns amounted to 10,000 men. The cost of providing sick transport for 10 per cent. of these, or 1,000 men, under system "A," is for one month Rs. 1,098 × 100, or Rs. 1,09,800.

The cost of carrying 14 per cent., or 1,400 men, under system "B" is Rs. 547 × 100, or Rs. 54,700. This leaves a net gain of 400 extra men carried and Rs. 55,100 saved monthly, or, for the period of eight months, Rs. 4,40,800.

These figures, though startling, do not represent all the advantages of the proposal, for I have not yet taken into account the number of camels or other transport animals that it would set free to supply the general requirements of the column.

I may assume that the average distance over which the food-supplies of the three columns were carried was at least as great as from Kohat to Peiwar, or, including the return journey, one month's march for camels. The free ration for each follower (see Cabul papers) weighs one seer, two chittaks and ten-twelfths, or, for a month of 30 days, 35 seers and 5 chittaks, and allowing that each camel carries a full load of four maunds, 113 camels will be required to carry a month's provisions for 512 followers.

The total number of followers employed in the transport of the sick with a force of 10,000 men will be, under system "A,"—

With 1,000 doolies, kahars 6,000, mates 120, sirdars 60, total	...	6,180
Under system "B"—		
With 400 doolies, kahars, &c.	...	2,472
With 300 camels, sirwans	...	75
With 400 mules, mule-men	...	100
Total	...	2,647

Taking these totals, we find that the carriage of food for establishments employed in sick transport will require under system "A" 1368·94 camels, under system "B" 584·20 camels, leaving a balance in favor of "B" of 780 camels; and as these 780 will be accompanied by 195 sirwans, who must also be fed while across the frontier, the gross gain will amount to over 800 camels. System "B" however absorbs in sick transport 300 camels and 400 mules, equivalent to 200 camels, or a total of 500 camels, so that the net gain is only 300 camels.

To recapitulate, the advantages presented by system "B" when compared with that in force during the recent campaign are—

- (1) It affords carriage for 400 extra sick.
- (2) It reduces by 3,533 the number of followers to be fed, clothed, defended and generally looked after.
- (3) It frees 300 camels, capable of bringing to the front 1,200 maunds of supplies monthly.
- (4) It effects in the campaign of eight months a saving of four and a half lakhs of rupees.

Major G. S. White, 92nd Highlanders.

The arrangements for the transport of the sick that came under my notice lately in Afghanistan struck me as bad.

The doolie-bearers with my regiment were chiefly common coolies, not professional kahars. These coolies could barely on fairly level roads stagger along under their empty doolies. The kahars again in their turn became useless on the rough hill-side. Hill-men, accustomed to the work, alone are capable of carrying disabled men when it comes to a climb, and are of vital importance. Without them the first man down must either be left to his fate—generally no uncertain one—or prove an anchor to the force to which he belongs.

## D.

### ARTILLERY.

1. With the present establishment, could every gun in horse, field, mountain, and heavy batteries be placed in the field, and in how short a time?

Brigadier General C. G. Arbuthnot, Inspector General, Royal Artillery for India.

No. The numbers required of men and horses to admit of every gun being placed in the field must vary according to the season of the year. At the end of April, for instance, when the annual drafts of men and horses have joined their batteries, all that would be required would be additional horses to complete batteries of horse and field artillery to their proper strength for service in the field, and also about 10 per cent. on the ordinary establishments to replace horses considered fit for ordinary drill, but too old, &c., for active service. According to present service establishments, the numbers required to complete are 22 for a battery of horse artillery and 20 for a field battery, or 1,128 in all. On a great emergency, the present establishment of a battery of horse artillery (178) might be made to suffice, but field batteries must have additional horses. I therefore think that under this head, to meet a sudden emergency, about 400 horses would suffice. To replace horses unfit from age and other causes for active service, at least 700 are required for horse and field artillery. Therefore, under the most favorable conditions, to place every gun of horse and field artillery in the field, about 1,100 horses would be required at once; and to distribute these horses would take nearly a month. If it were necessary to place all these guns in the field early in the cold season before the arrival of the annual drafts, about 500 non-commissioned officers and men would be required, as at that season there is always a large percentage of men unfit for active service. About 700 horses also would be required in addition to the numbers already given to replace the annual castings, or about 1,800 horses in all. Therefore at the commencement of the cold season there would be required, to place in the field every gun, horse, field, heavy and mountain, at least—

Non-commissioned officers and men	...	500
Horses	...	1,800

And these could not be obtained in less than three months. The imported horses, moreover, would be unseasoned and unfit for hard work. I say "imported horses," because the number of artillery draught horses required could not be procured in the open market; for they are not in the country, and it is not to be supposed that Government would go to the unnecessary expense of maintaining a reserve of horses sufficient to meet the requirements for active service of the whole of the horse and field artillery in India. A reasonable reserve, however, should be maintained; and on this point I have submitted my opinion in reply to paper L.

Colonel A. H. Murray, Deputy Adjutant General, Royal Artillery in India.

No, though batteries at the end of the trooping season, when the drafts have joined, may be considered most efficient; in the event of their being required for service and medically examined, many men would be found unfit for field service, though doubtless perfectly capable of doing garrison or station duties.

The requirements for ten batteries for the Khyber and Kuram forces in Afghanistan at the end of 1878 were 105 men, while the same ten batteries, when again completed for service this month (nine months afterwards), required no less than 244.

From the above it may, therefore, be assumed that an average of 7 to 8 per cent. would be required for every battery when first required to take the field.

As regards the time in which they could be placed in the field, batteries can always be completed from others which remain in garrison without any delay, and the rest depends upon the time taken to provide carriage and commissariat. This again depends upon local circumstances and sources of supply; but once the above is supplied, batteries should be able to take the field in twelve hours.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I consider that with the present establishment every gun could be at once placed effectively in the field, but for the purpose of a campaign time must be allowed for a battery to obtain its extra horses, second line of wagons, &c.; and as the length of that time will vary so much with the *locale* of the battery, &c., it is impossible to calculate it.

Colonel H. Stover, Commanding Royal Artillery, Thayetmyo.

I think that 110 horses would be sufficient, but that as two gunners are now carried on the axletree seats of the guns, and sometimes three gunners on the limber instead of two, some change might be carried out. There would be room on the first line of wagons for 12 and sometimes 18 men; and the weight of the gun-carriage is increased by the weight of three men. The Artillery Hand-book for Field Service for the 12-pounder B. L. Armstrong of the same weight as Mark I 9-pounder gives eight horses for each gun. The only non-commissioned officers that must have horses are the battery surgeon-major, six sergeants as the Nos. 1 of the guns, one shoeing-smith, one trumpeter, one non-commissioned officer attached to the first line of wagons and one to the second line. The farrier, one shoeing-smith, one trumpeter, and the non-commissioned officers who act now as markers might be on the wagons; the Nos. 1 could mark when necessary.

No. of carriages.	Equipment.	HORSES.		
		Draught.	Riding.	Total.
6	Guns ... ..	48	...	48
6	Wagons ... ..	36	...	36
...	Staff sergeant ... ..	...	1	} 11
...	Sergeants ... ..	...	6	
...	Trumpeter ... ..	...	1	
...	Shoeing-smith ... ..	...	1	
...	Non-commissioned officer attached to 1st line of wagons.	...	1	
...	Non-commissioned officer attached to 2nd line of wagons.	...	1	} 15
...	Spare horses ... ..	12	3	
	TOTAL ... ..	96	14	110

On a battery being ordered to go on active service, it is most probable that something like the number I have mentioned to be spare (or 12 draught and 3 riding horses) would have to be supplied to the battery to take the places of those found unfit to go; and in order to keep up the proper number of spare, it is probable fresh ones would have occasionally to be supplied. Some spare bullocks in addition to the establishment would be required. I have had no experience of service in the field in India, but consider that for active service with long marches the employment of women as grass-cutters would not be possible. The battery of field artillery at this station employs them. The battery of 7-pounder steel guns here (*viz.*, 10-8th Royal Artillery) has either commissariat coolies or commissariat elephants. I know nothing of horse or heavy batteries.

Colonel A. C. Johnson, Royal Horse Artillery.

If the establishment of a battery is complete and in good order, it should be able to take the field as soon as the indents for the necessary carriage are complied with.

Lieutenant-Colonel J. Taylor,  
Commanding Royal Artillery,  
Mysore Division.

I can only speak as regards horse and field batteries. Every gun could be placed in the field at once with their present establishment, provided every officer, non-commissioned officer, gunner, driver and horse was effective and fit for active service, and there was no delay in the provision of the necessary transport and camp equipage.

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

Yes, with the present war establishment, I cannot speak from personal knowledge of the number of syces as being sufficient, but I have heard that they were found enough in Afghanistan. If fighting went on in the hot weather, however, I think the gunners and drivers would be overworked.

I can only speak for horse artillery.

I can say nothing of the preparedness of the medical department. Formerly the requisites for a battery were always kept ready packed, medicines, instruments, &c., in camel trunks. I believe this is not so now.

If carriage could be supplied for the baggage, a battery could start in 24 hours; but this "if" of course means a great deal.

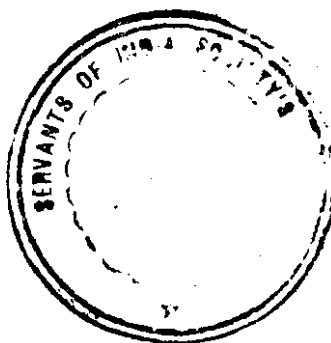
Major Bertie Hobart, B.A., Military  
Secretary to His Grace the Govern-  
or of Madras.

Yes, I think so, though I have had no regimental experience except in the case of horse batteries for a very long time. Every battery could, I believe, be on a general parade in marching order for any emergency within an hour after "boot and saddle;" but before commencing a march on service, probably 24 hours should be allowed for shoeing up horses, remounting any carriages under repair, packing stores, inspecting camp equipage that it is complete to a tent-peg, recalling harness under repair from collar-maker's shop, and men's clothes from the tailor's shop, and from dhobies' hands, &c.

This is all irrespective of the transport for tent, bedding, &c., and the commissariat coming in. The total time, therefore, required to turn out would depend on the existence at the station concerned of a moveable column, or the facility with which the transport resources of the neighbourhood could be made available.

Major H. C. Lewes, Commanding  
I Battery 1st Brigade, Royal Artil-  
lery.

With the present *peace* establishment, and speaking for field batteries only, I should say "no." Neither horses or men, as a rule, would be up to the establishment. Casualties from sickness would alone prevent it. With the present *war* establishment every gun, I think, could be placed in the field, but batteries are not kept up to this strength, and so it is difficult to estimate the time that would be required. Additional men and additional horses would have to be posted; extra harness drawn from store; *khaki* clothing provided; grass-cutters (Bombay) entertained; hospital establishment would require doolies and bearers provided; and a regimental transport of from 300 to 400 camels would be needed, or an equivalent. A baker's and butcher's establishment would probably be necessary. The *battery alone* is, or ought to be, ready, independent of its strength, peace or war, to march out and encamp at once, *i.e.*, within a few hours. But "taking the field" means that, when once it has marched out, it is to stay out, and that it is thrown on its own resources. It is then dependent on both ordnance and commissariat departments, and under the present *régime* I cannot give a reliable opinion as to how long it would take to place artillery in India in the field. Some batteries would be ready before others. The average time is what is required. How many batteries in India have their complement of officers?



Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

In horse batteries they could, allowing only for an average number of casualties.

The time would vary with circumstances.

Major W. W. Munloch, Com-  
manding E-A, Royal Horse Artil-  
lery.

The present establishment of royal horse artillery is sufficient: every gun could be placed in the field as a rule. It is only during exceptional sickness that this could not be done. A battery of royal horse artillery ought to be able to march on an emergency in a few hours if carriage can be obtained.

I offer no opinion as to field, heavy, or mountain artillery, as I have never served in any of these in India.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

Horse and field artillery. No! I should think every 5th or 6th battery of each would have to be practically split up, *i.e.*, denuded of its best men and horses.

Mountain and heavy batteries. Yes! They are not dependent on European drivers and horses.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

I can only give an opinion as regards the establishment of a horse artillery battery, because I have not time to examine and consider the establishments of the other class of batteries. I consider the present establishment of a horse artillery battery in India excessive, and therefore ample to enable every horse artillery gun to be placed in the field



at a moment's notice : Provided—

- (1) that the establishment is present with the battery ;
- (2) that there is no great amount of sickness amongst the non-commissioned officers and men ;
- (3) that carriage be obtainable.

Major C. E. Nairne, Royal Horse Artillery.

Except in cases of unusual reduction of men from sickness, every battery can march on service in 24 hours after receipt of the order, or in 6 hours after receipt of the necessary carriage.

Major P. FitzGerald Gallwey, Royal Artillery.

I certainly think yes, except perhaps at unusually sickly stations or at peculiarly sickly periods. With regard to the second part of the question, I should think the only delay after receiving the order for service would be in obtaining carriage and recalling officers and men absent.

Major W. H. Noble, Royal Artillery.

It is presumed that the words "placed in the field" mean completely organized on a war establishment; and as the "present establishments" are not on a war strength, it follows that every battery in India could not be placed in the field at one and the same time.

As a rule, batteries in time of peace are not up to full establishment in officers, non-commissioned officers, men, or horses, and as there is no reserve in India, it would be absolutely necessary to draw on one battery to raise another to a war strength.

Moreover, it would be necessary to provide hospital establishment, transport, and in some cases to draw second lines of wagons and ammunition from ordnance charge.

The length of time, therefore, required to place a battery in the field would depend upon the promptness with which the battery requirements were met by the departments concerned.

Major W. R. C. Brough, Royal Artillery.

Of the batteries named, my experience is limited to horse and field. With the present establishment a battery ought, after 1st November, to be capable of taking the field in three or four days. Before 1st November the number of men absent at hill sanatoria would probably delay its preparation : I here merely speak of establishment. Great delay was caused last year by uncertainty as to what kit, clothing, or stores were to be taken with the battery, and from want of arrangement for the disposal of surplus articles. Experience gained during the late war will probably now allow clear orders to be published laying down the exact clothing and equipment required for external and internal warfare. Much saving, too, might be effected by confining the regiments, batteries, &c., most liable for each class of warfare to the kit and equipment they would be likely to require, and by the abolition of the now often useless clothing, &c., supplied by Government.

Major C. Wilson, Royal Artillery.

The present establishment for heavy batteries is sufficient to bring all guns into the field at 24 hours' notice. I consider the establishment for the other nature of batteries is also sufficient.

Captain W. Law, Commanding C-2nd, Royal Artillery.

I have no experience of mountain or heavy batteries. With the present establishments, not more than four sub-divisions could be placed in the field with a sufficient complement of either men or horses. The batteries for Malta received twenty horses and a similar proportion of men.

A battery could march out of its station, handing over in an orderly manner in three days from receipt of the order, or quicker, if a party could be left behind to hand over barracks, &c.

Captain A. D. Anderson, Royal Artillery.

1, 2, 3, 10 & 13. With the present establishments, and system of utilizing them, the 15 horse and 43 field batteries could not be placed in the field under the time that would be required to get from England 1,000 men, or an average of about 18 for each of the 58 batteries; and to collect in India horses for—

15 horse batteries	at 22 per battery	=	330
43 field	at 20 " "	=	860
Total			1,190

The men are required to take the place of the casualties of the moment and those always invalidated at the breaking out of a war as unfit to undergo a campaign, but who have been allowed to serve on in the ranks; and the horses are to complete batteries to the authorized Indian war establishment. The system we were compelled to adopt for this last campaign was as follows:

Numbers varying from 18 to 40 men, and a like number of horses, were drafted from batteries least likely to be required for service and attached to those ordered to the front; and had more batteries been called for in the field, this process of dismemberment would have been continued to those left behind; while, had the deputy adjutant-general, royal artillery, been ordered

to place in the field every available battery (as indicated in the question before us), he could only have done so by breaking up as follows:—

6 Batteries horse artillery	at 158 men	= 948 men,
6 Ditto ditto	at 178 horses	= 1,068 horses,
or 6 Batteries field artillery	at 158 men	= 948 men,
10 Ditto ditto	at 110 horses	= 1,100 horses,

or roughly at least 6 batteries of men and 8 of horses.

The result would have been obtained—but at what cost? The statement of the loss of a few batteries by no means truly represents the baneful effects of the working of the system. On those batteries who go to the front, the shock falls lightest. Deficiencies are made up by batches of men (often the worst, never the best, from other batteries) of whom nothing is known and who know nothing of their officers or comrades, and the most crucial test to all—a campaign—is entered on. But on those who are drawn from, the trial falls most sorely. One call for, say, 20 men has to be complied with; perhaps a second for a like number, or a third (men whom you have carefully watched and trained for this very chance); your own battery is then required in the field; the vacancies are filled by drafts from other batteries, strangers in every way, and you go to the front; but instead of starting as a compact, well-drilled body, the unity of battery customs, habits, discipline, drill, everything for which officers and men have striven and worked, is swept away; and when the opportunity for which you have lived arrives, you find your battery a heterogeneous mass of undoubtedly good material, but requiring to be knocked into shape and cohesion as the opportunities of service will allow.

Under present arrangements, I look on the horse question as of little importance, the requirements being so small; but I am convinced that, to secure the true efficiency of batteries in India, it is imperatively necessary that they be kept permanently up to the English war footing of Europeans, as laid down in Army Circular No. 7 of 1878, *viz.*, horse artillery 182 men, field batteries 175 men, including officers, or without these 175 and 168 men, respectively. The scheme, therefore, that I beg to lay before you in substitution of the present system is to place batteries in India on the English war footing of men, with full equipment, harness, saddlery, stores, &c., and on a slight increase on the English peace strength of horses. This very decided reduction of horses in our peace establishment would entail energetic action on the question of horse supply, a difficulty which I hope to prove can be overcome. The establishments of batteries would on this scale be:—

Officers and men.	Royal horse artillery.		Field artillery.		Horses, saddlery, and harness.	Royal horse artillery.		Field artillery.		Equipment.	Royal horse artillery.		Field artillery.	
	Royal horse artillery.	Field artillery.	Royal horse artillery.	Field artillery.		Royal horse artillery.	Field artillery.	Royal horse artillery.	Field artillery.					
<i>Officers.</i>														
Major ...	1	1	Staff sergeants ...	2	2	<i>Horses.</i>		<i>Ordnance.</i>		Rifled muzzle-loading guns.	6	6	<i>Carriages.</i>	
Captain ...	1	1	Non-commissioned officers.	12	6									
Lieutenants ...	3	3	Farrier ...	1	1									
Surgeon ...	1	1	Shoeing smith ...	1	1									
Veterinary surgeon ...	1	1	Trumpeters ...	2	1									
			Gunners ...	36	2									
			Spare ...	6	2									
	7	7												
				60	13									
<i>Non-commissioned officers and men.</i>														
Sergeant-major ...	1	1	<i>Draught.</i>		<i>Ammunition.</i>		<i>Rounds per gun ...</i>		148	148	<i>Forge</i>			
Quartermaster sergeant	1	1												
Sergeants ...	6	6												
Corporals ...	6	6												
Bombardiers ...	6	6												
Gunners ...	70	72												
Drivers ...	73	65												
Trumpeters ...	2	2												
										114			83	
<i>Artificers.</i>														
Farrier ...	1	1	<i>Saddlery sets.</i>		<i>Harness.</i>		<i>Lead ...</i>		32	30	<i>Wheel</i>			
Shoeing smiths ...	5	4												
Collar-makers ...	2	2												
Whealers ...	2	2												
	182	175		70	20				49	45				

In the above, I have added six spare horses to horse and four to field batteries in addition to the English peace establishment, in consideration of horses in this country being inferior in size and class to those in England. This English scale of horses only provides four for each wagon. This I believe to be sufficient for ordinary drill grounds and marches in India. For exceptional cases, exceptional arrangements must be made. It also only provides horses for two wagons out of six in horse artillery batteries, the remaining four I propose leaving with their ammunition complete in battery charge, and when requisite to move them from one station to another in peace time; bullocks for their draught could be hired. The above table gives an increase of 17 men for each horse, and 10 men per

• All wagons 4 horses.

† Four ammunition wagons without horses.

field battery, in return for which I propose a large reduction of the present establishment of Natives. When one bears in mind the fact that batteries of artillery as they stand on parade in England with their three store wagons (after their complement of horses is made up) are complete in every possible way, except food and forage, and ready for any marches or work, and then recollect the general incapacity for work of the Native follower, when in any way out of his ordinary groove, besides the serious encumbrance they as a class are on the line of march, I submit it behoves us (as far as the climate will permit) to keep our European establishment up to the highest pitch of efficiency and preparation, and to substitute their work in every possible way for that of Natives.

I will now endeavour to shew the increase or reduction in cost in each branch of the establishment on the above scale, including Natives. The establishment proposed shews an increase on the present Indian strength of—for horse artillery 17 men, field artillery 10 men, and would roughly cost the State as follows:—

*Horse Artillery.*

	Rs.	A.	P.
Pay of 12 gunners or drivers, at Rs. 19 per month ...	2,736	0	0
Pay of 3 shoeing-smiths, at Rs. 33-4 per month ...	1,197	0	0
Pay of 1 collar-maker, at Rs. 30-10 per month ...	367	8	0
Pay of 1 wheeler, at Rs. 30-10 ...	367	8	0
	<hr/>		
Annual clothing for 17 men, at Rs. 22-9 per annum ...	4,668	0	0
Rations for 17 men, at Rs. 100 per man per annum ...	383	9	0
	<hr/>		
Total	1,700	0	0
	<hr/>		
Total	6,751	9	0

*Field Artillery.*

Pay of 6 gunners or drivers, at Rs. 17-15 per month ...	1,291	8	0
Pay of 2 shoeing-smiths, at Rs. 30-10 per month ...	735	0	0
Pay of 1 collar-maker, at Rs. 27-15 per month ...	335	4	0
Pay of 1 wheeler, at Rs. 27-15 per month ...	335	4	0
Annual clothing for 10 men, at Rs. 35-6 per annum ...	353	12	0
Rations for 10 men, at Rs. 100 per man per annum ...	1,000	0	0
	<hr/>		
Total	4,050	12	0

The reduction in horses from the present Indian establishment of horse artillery 178, field 110, to that laid down in the above table of horse artillery 114, and field 83, will be horse artillery 64 horses and field batteries 27 horses, the saving on which will be—

*Horse Artillery.*

	Rs.	A.	P.
Interest at 4½ per cent. on cost of 64 horses at Rs. 800,* or			
Rs. 51,200 ...	2,304	0	0
Feeding, shoeing, wear and tear of line-gear for 64 horses, at Rs. 10 per month ...	7,680	0	0
	<hr/>		
Total	9,984	0	0

*Field Artillery.*

Interest at 4½ per cent. on cost of 27 horses at Rs. 800,* or			
Rs. 21,600 ...	972	0	0
Feed, &c., of 27 horses, at Rs. 10 per month ...	3,240	0	0
	<hr/>		
Total	4,212	0	0

Here, however, lies the most difficult part of the scheme. I believe the establishments of horses lately sent with batteries to Afghanistan, *viz.*, horse artillery 200 horses, field 130 horses, are, and have been proved to be, not one too many for the rough usages of service. Batteries would, therefore, on the outbreak of war have to be raised to those numbers, meaning an increase for horse artillery 86 horses and field 47, or for the 15 horse and 43 field batteries in India of 3,311 horses.

These, or any portion of the same, could, I submit, be procured as follows:—

(1) From the studs, as far as they might be in a position to supply full-aged horses (which number would always be small and quite untrained).

(2) By deputing officers to buy in the local markets.

It is, I believe, an admitted fact that each remount, when made over to the troops, has cost Government at least Rs. 1,000. Why should not Government, therefore, on special occasions do, as was done in England for the large manœuvres and during the preparations for war during the 1870-71 campaign, buy at liberal prices in the open markets.

Imagine 10 officers deputed to the principal towns and horse districts in the country with orders to buy about 350 horses apiece at an average price of Rs. 1,000. Each officer would have in his beat either a capital town and some small stations, or a large number of ordinary Indian cantonments, while all would have some of the Native Princes or gentry within reach. My own knowledge reminds me that the "Seth" at Muttra has 27 pairs of draught horses in his stables; that the Maharaja of Mysore has 150 horses in his stables; and an officer, late Deputy Assistant Quarter-Master General of the Meerut Division, informs me he could guarantee 500 horses in a month from that division alone at that price; while doubtless hundreds of other instances could be quoted. And I am convinced that were Government to take the matter up, these Natives who so willingly offered

\* A low estimate of cost to Government of each remount.

their troops would offer their horses, and that the price (a more liberal one might, if necessary, be given, but I consider Rs. 1,000 extravagant) to them as well as to the owners of horses in the different Indian stations would prove such a temptation, that good horses, both saddle and draught, would be forthcoming to the extent required.

I beg leave to quote my own personal experience on this point of purchasing. I was ordered to proceed on the Kandahar column with 48 hours' warning and had no horses. I bought two between Simla and Sukkur for Rs. 400. They carried me from Sukkur to Khelat-i-Ghilzai and back without failing for a day. Surely, they could equally well have carried a non-commissioned officer or gunner. Had I been purchasing for Government, those horses would probably have cost Rs. 300 each, leaving me from an average of Rs. 1,000 at liberty to pay Rs. 1,700 apiece for my next two; and I think there are but few private horses in India that could not be got at that figure. Government could, if they thought fit, register horses in time of peace, and well afford to pay a retaining fee; but I would rather fix the purchasing price at such a figure as to force sales, and that I believe would be the average of Rs. 1,000. Most of the animals thus purchased should be sound enough for practical purposes, and to a great extent broken in and accustomed to work, saddle or harness, infinitely more so than a remount from the stud.

I hear the objection—"Suppose a local rebellion arose?" Then every horse in the country within reach would more than at any other time be available for service. You would also hear—"These horses will be all sorts of colors, heights and ages, and not equal to the stud remounts after they have been kept a short time." True, in some cases; but they will be far superior to them for present hard work, and officers, who now object to horses of a different color, height or stamp from their own, might well take example from the German artillery, who by the time they reached the outskirts of Paris had replaced some of their horses twice over, and whose gun teams presented a most ludicrous appearance, horses and ponies of every class working alongside of each other; still the guns were kept well to the front during the whole of that severe winter.

Our batteries would start with their 114 and 83 horses, respectively, thoroughly trained, and the additional 86 and 47, having been beforehand accustomed to work of sorts, would very soon be knocked into shape, amply sufficient for the requirements of a battery in the field, where the "will and power" to work rank before "appearances."

In consideration of the above full complement of Europeans and reduced number of horses, I propose reducing the present stable establishment to one man (call him syce or grass-cutter) for each horse and ponies, horse artillery 87, and field batteries 70.

It is well known that a *gorawallah* brings in grass sufficient for 4 horses; but I would suggest that one pony for every 2 horses goes for grass daily with a man, leaving in the lines for horse artillery 30 ponies and 57 men, and field batteries 28 ponies and 41 men. The ponies to rest and supply casualties in cantonments, and on the march to carry the battery tents and the men to help drivers with grooming, to do mid-day stables and any work required in the lines during the extreme heat of the day.

I would propose that these ponies be the property of, and fed by, Government, at the rate of two seers barley per diem, and that the purchasing price, including saddle (grass carrying), gear, &c., be Rs. 40. A glance at the following sums will shew the economy of this:—

*Horse Artillery.*

	Rs.
Interest at 4½ per cent. on cost of 87 ponies at Rs. 40, or Rs. 3,480	... 156
Feed of 87 ponies at 2 seers barley per diem, at 15 seers per rupee	... 748
Pay of 114 men, at Rs. 5	... 6,840
Total	... 7,734
Cost of replacing 8 ponies per annum, or 11 per cent., at Rs. 40	... 320
Total	... 8,054

Were the ponies the property of the followers—

	Rs.
87 men's pay, at Rs. 8 per month	... 8,352
27 " " " 4 " "	... 1,296
Total	... 9,648

And a somewhat similar result for field batteries, leaving out of the question the far more important view of the case, *viz.*, that on the first plan good strong ponies would be bought, and they would be cared for and regularly fed.

The ponies remaining spare from the above calculation, horse artillery 30 and field batteries 28, should, I submit, be utilized in the carriage of battery tents.

The most roomy, serviceable and portable is, I believe, the small bell tent, capable of holding ten men, or a small-sized double-pole, double-fly hill tent; these, if given to batteries of artillery at the rate of 25 per battery, could at all times be carried on marches and service, Government providing suitable saddles for the carriage of one tent on each pony.

The financial results on the stable establishment would thus be:—

*Present Establishment.*

	Rs.
Horse artillery—	
Pay of 118 syces, at Rs. 4	... 5,664
" 178 grass-cutters, at Rs. 4	... 8,514
Total	... 14,208

*Proposed Establishment.*

Interest on original cost of 87 ponies at Rs. 40, at 4½ per cent.	...	Rs.	156
Feed of 87 ponies at 2 seers barley per diem, at 15 seers per rupee	...	...	4,176
Replacing 11 per cent. of ponies, 8 ponies at Rs. 40	...	...	320
Pay of 114 men at Rs. 5* per month	...	...	6,840
<b>Total</b>	...	...	<b>11,492</b>

or a saving of Rs. 2,716 per annum.

**FIELD BATTERY.***Present Establishment.*

Pay of 71 syces, at Rs. 4	...	...	...	Rs.	3,408
„ 110 grass-cutters, at Rs. 4	...	...	...	...	5,280
<b>Total</b>	...	...	...	...	<b>8,688</b>

*Proposed Establishment.*

Interest on original cost of 70 ponies at Rs. 40, at 4½ per cent.	...	...	...	Rs.	126
Feed for 70 ponies at 2 seers barley per diem, at 15 seers per rupee	...	...	...	...	3,360
Replacing 11 per cent. of ponies, 7 ponies at Rs. 40	...	...	...	...	280
Pay of 83 men, at Rs. 5	...	...	...	...	4,980
<b>Total</b>	...	...	...	...	<b>8,786</b>

or a loss of Rs. 98 per annum.

Taking the Native establishment of a battery, I will now note how the work is done in England:—

			<i>H. A. Field.</i>	<i>In England.</i>
Bullock-drivers	...	...	3	3 } Not required.
Jemadar syces	...	...	3	3 } By men.
Syces	...	...	118	71 } By men.
Grass-cutters	...	...	178	110 } Not required.
Tindal	...	...	1	1 } By men.
Store lascars	...	...	12	12 } By men.
Mutsuddy	...	...	1	1 } By men.
Weighman	...	...	1	1 } By men.
Bheesties and puckallies	...	...	4	4 } By men.
Sweepers	...	...	3	3 } By men.
Mochies	...	...	2	2 } By men.
Mistry (carpenters)	...	...	2	2 } By men.
Filemen	...	...	2	2 } By men.
Fireman	...	...	1	1 } By men.
Hammermen	...	...	2	2 } By men.
Mistry (smith)	...	...	1	1 } By men.

*Conservancy Establishment.*

			<i>H. A. Field.</i>	<i>In England.</i>
Bheesties	...	...	1	1 } By conservancy estab-
Sweepers	...	...	3	3 } lishment.
Bildars	...	...	2	2 } By men.
Tent lascars*	...	...	24	24 } By men.

Without the increase asked for in Europeans, I admit the services of some of these followers are required; but if raised to English war strength, few of them are, I consider, necessary, and the establishment should, I submit, be reduced as follows:—

Followers.	<i>H. A. F. A.</i>		Peace time.	War time.
Tindal	...	1 1	Dispensed with. Their duties are amply performed by men in England. In India their chief work is as orderlies.	} As in peace.
Store lascars	...	12 12		
Mutsuddy	...	1 1	In no way necessary	} As in peace.
Weighman	...	1 1		
Bheesties and pukalis	...	4 4	Required	Only two puckallies required.
Sweepers	...	3 3	Ditto	Only one, to attend on the few Natives allowed in camp.

\* Rs. 4 is too little.

† War establishment.

Followers.	Peace time.	War time.
Mochies ... 2 2	Not required. Increased establishment being two collar-makers instead of one.	As in peace.
Filemen ... 2 2 Fireman ... 1 1 Hammermen ... 2 2 Mistry (smith) ... 1 1	Not required, as increased establishment allows shoeing-smiths horse artillery 5 and field batteries 4, instead of as at present 2 for each battery.	As in peace.
<i>Conservancy Establishment.</i>		
Bheestie ... 1 1 Sweepers ... 3 3 Bildars ... 2 2	These are local requirements and really not battery establishment.	Should belong to line of communications and camp grounds.
Tent lascars ... 24 24	Not required. If light tents be issued, the work will be far better done by the men.	As in peace.

This, it will be said, throws excessive work on the men, but the proposed increase of Europeans and reduction of horses amply provides for it all.

The work of tindals, lascars, mutsuddies, weighmen and tent lascars is of so light and nominal a description as to be inappreciable; it is ably done by men in England and could be here. Bheesties and sweepers are necessary in barracks to save the men from the sun. On service, only two pukalis need be taken to supply drinking-water; the mass of water-carrying can be done by the men. Sweepers on service are not required for the men, who can dig and fill up their own trench as in Europe. One sweeper I allow for Natives on account of caste prejudices. The men of a battery would thus, as in England, perform their own duties. That it can be done on service has just been amply proved. Syces, tent lascars, store lascars and Native followers generally were on the Kandahar column, but so much encumbrance, employment for doctors and loads for doolies. The British and Native soldiers did all the work, and by the time the higher and colder regions were reached and the European was bursting with life and vigour, the Natives positively died by scores, from nothing but cold and exposure. It might be said the class was bad, but the majority of the followers were no new enlistments.

Also that—"How would the European work in a summer campaign in the plains?" The answer I believe is—"The granting of Native followers should be the exception, not the rule." The results under this head would, therefore, be much as follows, *viz.*, a saving in horse and field batteries of—

Followers.	Horse Artillery.	Field.
	Rs.	Rs.
1 Tindal, at Rs. 7-8 per month	90	90
12 Store lascars, at Rs. 6 each	864	864
*2 Tent lascars, at ,, 5-8 ,,	138	138
Syces already calculated		
1 Mistry (smith), at Rs. 12	144	144
1 Fireman, at ,, 10	120	120
1 Fileman, at ,, 8	96	96
1 ,, at ,, 7	84	84
2 Hammermen at ,, 7 each	168	168
1 Mistry (carptr.), at ,, 14	168	168
1 Carpenter, at ,, 10	120	120
1 Mochee, at ,, 10	120	120
1 ,, at ,, 7	84	84
1 Mutsuddy at ,, 6	60	60
1 Weighman at ,, 4	48	48
Total	2,304	2,304

The duties of the European soldier of artillery in this country might, at the same time, be very considerably lessened by adopting some of the practical German ideas on that point. In their army, with a war strength of men and four out of six guns horsed (therefore a minimum of stable duties), they for some five to six months in the winter put their harness, equipments, &c., in soap and oil, and devote the time to education, both ordinary and military, to training up young soldiers and horses; in fact, to all sorts of rudimentary instructions, leaving the field drills, manoeuvres, &c., for the summer months. In England, as in India, our artillery are kept all the year round strung to a concert pitch of drill, appearance, &c., involving regular and continual drills of every sort, stable duties and harness cleaning. What a relief it would be to the British soldier if drill parades, beyond pure exercise, were forbidden in the five summer months; if the horses were expected to be allowed to rest, and only kept clean and well, and the harness to be kept in oil; while the advantage to the State would be proportionately great, if the leisure time thus gained were to be devoted to ordinary school work and instruction in gunnery and military duties generally, of which in our service at present very little goes on.

• Peace establishment, war being 24 each battery.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

My service having been principally with garrison artillery, I do not feel competent to answer this question.

Lieutenant E. C. Wace, R. A.,  
No. 4 (Hazara) Mountain Battery.

As regards the *mountain* batteries of *Native* artillery, half the number of guns could always be put into the field at a moment's notice, the baggage establishment of each battery being always kept up on such a scale.

The only delay in bringing up the remaining guns would be that caused by the want of transport.

The establishments permanently kept up in these batteries require no additions on the outbreak of war, with the exception of a reserve of 10 per cent. to supply casualties amongst the gunners and drivers.

## 2. Can you suggest any measures which would add to efficiency of artillery in India and decrease expenditure?

Brigadier-General C. G. Arbuthnot, Inspector General, Royal Artillery for India.

None, but an entire reorganization of the arm.

Colonel A. H. Murray, Deputy Adjutant General, Royal Artillery in India.

Yes.

### I. As regards adding to the efficiency of the artillery in India with decrease of expenditure—

(a) Men of more mature age and service should be sent out, and a stricter medical supervision of those who are sent out is absolutely necessary. I believe many men are unfit at the time of embarkation, do little or no work after they join in India, and if they do not die in the meanwhile, have to be sent home within one, two, or three years of their landing. All this tends to decrease of efficiency and increase of expenditure in supplying men in their places. The same may be said of many young officers who are sent to this country too young and have to be sent home sick.

(b) The supply of line-gear is unsatisfactory in the extreme. I believe a much better description is procurable at cheaper rates. The complaints are general, especially as regards horse brushes, which are useless.

(c) Brown leather accoutrements to all, the same as supplied to mountain batteries. These would be more efficient, much cheaper, easier, kept clean, more soldier-like, and at the same time more useful in the field.

(d) Permanent fittings to all permanent stables, and hence a great decrease in the number of articles of line-gear and weight to be carried. A battery need only have such things as are absolutely necessary in camp.

(e) Division of India into army-corps, and hence arranging reliefs within the army-corps circle instead of all over India, garrison batteries excepted (see my letter No. 8540, dated 3rd September 1879, paragraph 8, subject—1st, "decentralization," clause VI).\*

(f) In lessening official correspondence, printing general orders, postage, &c.

(g) Saving in moving about stores, line-gear, and camp equipage, and substitution of "local supply" wherever feasible.

(h) In the horse allowance of medical officers of higher rank. These officers attached to cavalry and horse artillery, of over eight years' service (although they hardly ever ride), get more horse allowance than the major commanding a battery of royal horse artillery. I may here remark that only recently over 5½ lakhs per annum have been saved in the reorganization of the royal artillery. Thus it is not possible, in my opinion, that the expenditure can be further decreased, and there are a few items, such as horsing spare carriages and second lines of wagons, where a slight increase is absolutely necessary to preserve efficiency.

II. As regards increase of efficiency without increase or decrease of expenditure, I would here preface my remarks by observing that some departments, notably the ordnance and commissariat, are, in my opinion, underofficered even in peace time, and are consequently utterly unequal to bear the strain of war time. I believe it has yet to be realized that proper and efficient European supervision is absolutely essential to save expense; and until this is recognized, I fear no remedy will be applied.

Take for instance the late system of contract which existed between commanding officers of batteries and cavalry regiments and the Government. It was admitted that officers derived a certain income from this cause; but I would suggest that it be ascertained what the recent change, *viz.*, the abolition of the system and the supply by Government, has cost yearly in excess of what was paid to officers under the contract. The late Inspector General of Ordnance, Colonel W. C. Russell, by whose department the supply of line-gear on cessation of the contract system was first made, informed me that it would cost several lakhs of rupees. I mention this in proof of my statement, and not with a view or wish to re-establish the system, which personally I was glad to see abolished as being unsatisfactory to officers themselves, as also in placing them, in the opinion of many, in a false position.

It nevertheless establishes the fact that European supervision is essential to control expenditure. The complaints as to the inferiority of the articles now supplied also point to the fact of its being equally, if not more, necessary to efficiency.

The case of the manufacturing departments appears to me as another startling proof of the short-sighted policy of saving expense at the absolute sacrifice of efficiency. There are three assistant superintendents allowed to the four factories. The object of having an assistant is to ensure

\* See end of this appendix.

there being an officer in each department learning his duties and prepared to take the place of the superintendent if ill-health or other causes should necessitate his leaving. In the case of the important one of the harness and saddlery factory at Cawnpore, the assistant has been changed no less than twice within the last nine months, while for six months the post was vacant. What is the deduction? *viz.*, that the efficiency of the department which supplies leather for a large portion of India depends upon the health or the life of the present superintendent, and that if from any cause Government were deprived of his services, there is absolutely not one officer sufficiently qualified from previous knowledge of this special department, or even sufficiently versed in all the necessary details of the working of the establishment, so essential to its continuance on an efficient and economical basis, to take his place, and that whoever did so would in consequence be more or less at the mercy of the subordinates. The same may be said of some other departments. The above speaks for itself, and needs no comment.

I cannot dilate too strongly upon the necessity, in my opinion, for adopting the views of those who have the interests of the State at heart, both as regards efficiency and economy. I do not believe there will be found one dissentient opinion as to the truth of what I urge regarding the necessity for extra officers and European supervision; and that there are none who but feel convinced that although at first expense would be caused by the cost of the extra supervision, yet the result in a short time would be a saving of thousands. The Officiating Inspector General of Ordnance, than whom no one has the welfare of his department and its working with all possible economy combined with necessary efficiency more at heart, will, I am sure, bear me out fully, and yet, I believe, all his representations to the above effect and his urgent appeals for an increased establishment of European officers have been of no avail.

Take the number of officers allowed to an army-corps on the home establishment (28), and the number of ordnance officers allowed in this country to a corresponding force in the field, the self-evident conclusion is, I submit, that in this country the ordnance officers have labors imposed upon them which it is physically impossible for them to carry out either with justice to themselves or to Government; and the inevitable result must be inefficiency or loss of stores, or both combined.

I understand that at the present moment there is but one arsenal in the Bengal presidency in charge of an officer on the strength of, and belonging to, the ordnance department; all the others, whether arsenals or depôts (manufacturing departments alone excepted), being filled by officers belonging to, and on the effective strength of, batteries. What can be more fatal to real efficiency than the perpetuation of a system which permits of such a lamentable state of things? But I am convinced that so long as we are content to adhere to old traditions to consider that, because the present "happy-go-lucky" system has obtained in our forefather's time, there is no need for change in our time; so long that we fail to realize that true economy is that alone which finds us prepared for war; that economy at the sacrifice of efficiency is but courting disaster when the struggle comes: so long, I repeat again, as we fail to recognize wherein lies our own interest, our own true economy, so long will nothing be done and no radical good or progress be effected.

I have purposely dwelt thus exhaustively on this subject, because it effects the efficiency of the artillery *most materially*. In this country, so soon as the strain caused by war is felt, calls are made on the artillery to supply officers for the departments, and in consequence of these officers not being seconded, or in other words being left on the strength of their batteries, inefficiency is the result.

In April last an application was made to the Horse Guards (a copy of which was sent to Government) for all temporarily employed in the ordnance department or Punjab artillery to be seconded, and for effective officers to be sent out to fill their vacancies, as also to complete existing deficiencies.

It was also clearly pointed out that even in the event of hostilities being brought to an early close, there was no immediate prospect of all the officers then employed being replaced at the Commander-in-Chief's disposal; while, on the other hand, if the occupation of Afghanistan or any portion of it was prolonged, the retention of the services of a large majority of them in their situations would be necessitated. Further, that at the time, with the reduced number of artillery officers at regimental duty, there was but little or no reserve from which His Excellency could fill vacancies occasioned by sickness, invaliding, or other causes which under the most favorable circumstances must be expected to arise from the contingencies of service in Afghanistan during the hot season without seriously impairing the efficiency of batteries in India.

This was referred to the Secretary of State for India, who nevertheless, in the face of the above urgent representation, did not think it advisable to comply with the request, in the belief that, on the conclusion of hostilities, the officers had for the most part been directed to join their respective batteries. The Secretary of State, however, requested that, as it was represented that the absence of the officers in question was attended with very great inconvenience to the public service, the needful steps for relieving those still absent might be taken at the earliest possible opportunity.

Nevertheless, since April last, when this urgent appeal was made, the officers have been and are still absent, and no remedy has been applied.

Active operations have now again been resumed, and a further demand made for eight officers for the ordnance department. The Bengal, Madras, and Bombay presidencies have been called upon for volunteers, but only six could be obtained. On the 27th September Government applied for the services of a captain; but although this officer did not belong to the battery he was doing duty with, *he was the sole officer with that battery*, and his services could not be spared.

Batteries in the front are still incomplete in officers. I think it will be admitted that there is no branch of the service in which the necessity for a full complement of officers is more absolutely essential to efficiency than the artillery, and yet at this moment, with 18 European batteries in the field and in reserve, there exists this extreme paucity of officers and consequent want of efficiency.

It must further be borne in mind that when any officers of the ordnance department fall sick, fresh application is made for officers to fill their places, while the sick are returned to the regiment as "*ineffective*" *effectives*!! In the same manner, vacancies caused by promotions, invaliding, deaths, resignations, &c., in the artillery of the Punjab Frontier Force, Hyderabad Contingent, or Bombay Native artillery, have all to be met by the royal artillery in India.



In fact, there is at this present moment not one single battery south of Rawal Pindi which is effective in officers, or could be made so without dangerously reducing the other batteries, equally badly off, if required to take the field. Such shortsightedness, I submit, deserves serious and very early consideration, and the only way to remedy the evil is in the manner before proposed. I would therefore urge—

*First*, that the ordnance department be properly officered in peace time ;

*Second*, that when necessity demands recourse to the artillery for additional officers, they should be at once seconded, and their places filled with effective officers ;

*Third*, the same course to be adopted when officers are taken for the Native artillery. .

In conclusion, I would state as my opinion that the royal artillery would be efficient and ready at all times to put a sufficient number of guns in the field to meet all possible requirements without delay, were it but kept complete in officers. This is the one cry, the one urgent appeal, not only from this presidency, but also from the Commanders-in Chief of Madras and Bombay. It is continuous and unceasing.

It is hardly necessary to point out that it is not increasing expenditure as far as this branch is concerned in keeping it complete and up to its recognized and authorized establishment ; but, on the other hand, to sacrifice the efficiency of this arm by denuding it of its officers in order to make the working of another, and doubtless equally important, branch feasible during the pressure of war time, with the least possible expense, is, I would urge, fatal policy to both, and utterly without any shadow of justification. Under no circumstances should the necessary expense of the ordnance department be decreased at such a serious cost of efficiency to the royal artillery.

The great demand for non-commissioned officers for employment in the ordnance department also seriously affects the royal artillery ; for not only has the regiment to find effective non-commissioned officers for the 18 batteries in the front in lieu of those unfit, but also is called upon to furnish a very large number of non-commissioned officers for the ordnance department. This is due to the small proportion of European non-commissioned officers kept in the department in time of peace, and which is out of all proportion to the number absolutely necessary in time of war. It is true that Government permits the places of these men to be filled up, but all the same undoubtedly the efficiency of the regiment suffers therefrom. The removal of such a number of non-commissioned officers simultaneously must affect the regiment, and, as a matter of fact, the drain has been and is so great, that there has been difficulty in finding men qualified for promotion to fill existing vacancies caused thereby.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I cannot. I consider the present expenditure on a battery of artillery as the minimum with which to maintain its present high efficiency.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

As long as the present organization of the artillery as one enormous regiment exists, I cannot suggest any measures which would add to its efficiency and decrease expenditure.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

The major of a battery should be relieved from anxiety as to accounts and office work. Nearly his whole time is now occupied in his office instead of being given to making his men efficient soldiers ; this could be done by making the captain responsible for the pay department, the next senior officer for all pertaining to the quarter-master's department, (stores, clothing, &c.), and the next senior for men's records and all other general returns required from a battery. At present the major is a "slave." (I speak the more freely, as I have just now been relieved from the work by promotion.)

I can see no way of reducing expenditure without lessening efficiency.

Major Bertie Hobart, R. A., Military Secretary to His Grace the Governor of Madras.

I think the artillery in all branches is in the highest practicable state of efficiency, except as to the usual number of officers present with the batteries. Wherever there exists any inefficiency for immediate service, any want of discipline among the non-commissioned officers and men, or any slackness in stable management, it is, I feel sure, in a great measure due to the paucity of officers, which is (except perhaps in the horse artillery) the normal state of things in India.

I would not advocate any permanent increase to the establishment of officers with a battery. I think it a matter of which the regiment may be proud that the number of men and horses under the care and command of battery officers is so large. The work can be done, and well done, when all or nearly all officers are present ; but to throw more responsibility on each officer in an enervating climate is liable to lead to a perfunctory performance of daily duties.

There ought, therefore, in my opinion, to be a reserve of subalterns ; not less than one officer for every three field batteries and one for every four garrison batteries. For the horse artillery the senior subalterns in the foot artillery who are candidates might be detailed to do duty with batteries unusually short of officers, and thus learn their work in anticipation of getting a "jacket."

Of majors and captains I doubt any reserve being required or desirable ; since, except in the case of a battery having only very junior lieutenants, I am opposed to taking the command of his proper battery out of the hands of the senior lieutenant, because both the superior officers belonging to it happen to be absent.

I believe many officers in the regiment have earlier learnt the work of command and habits of decision and how to act under responsibility by the chance of commanding a battery than in the ordinary course of picking up information. The captains of batteries of which the majors are present may be considered the reserve for emergencies, when senior officers are necessarily required in other batteries.

A reserve of subaltern officers would be a direct increase of expenditure, but would doubtless result in a saving to the State by the maintenance of discipline, checking crime and irregularities, with consequent prison and hospital expenses, and the loss of men's services, and by the better care of horses, material, &c.

A decrease of expenditure by a reorganization of the artillery is suggested in the answer to the next question; but in reference to the disposition of the artillery in the Madras presidency with the garrisons of Bangalore and Secunderabad, and the force in the Central Provinces, the following distribution might be found sufficient, and decrease the number of batteries and the cost of field artillery establishments.

The table below shows the present and suggested distribution of batteries :—

STATION.	DISTRIBUTION.	
	Present.	Suggested.
Fort St. George ...	1 Garrison battery ...	1 Garrison battery.
Saint Thomas' Mount ...	2 Horse field batteries ...	{ 1 Horse field battery. 1 Bullock field battery.
Bellary ...	1 Horse field battery ...	1 Horse field battery.
Bangalore ...	{ 1 Horse artillery battery ... 2 Horse field batteries ...	{ 1 Horse artillery battery. 1 Horse field battery.
Cannanore ...	1 Garrison battery ... (Now on service and not replaced.)	{ 1 Bullock field battery. 1 Garrison battery. 1 Mountain. 1 Bullock.
Kamptee ...	2 Horse field batteries ...	{ 1 Horse field battery. 1 Bullock field battery.
Secunderabad ...	{ 1 Horse artillery battery ... 2 Horse field batteries ...	{ 1 Horse artillery battery. 1 Horse field battery. 1 Bullock field battery.
Trichinopoly ...	{ 1 Heavy battery ... 1 Horse field battery ...	{ 1 Heavy battery. None.

The above suggestion will reduce five horse field batteries and introduce four bullock field batteries in their place. The garrison battery at Cannanore, it is proposed, should have a mixed equipment.

The reason for stationing a battery on the west coast is that we are bound by Treaty of 1795 to maintain a "company of European artillery" for the protection of Travancore in consideration of a stipulated subsidy. When the field battery is withdrawn from Trichinopoly, as now proposed by this Government, there will be no artillery to represent our performance of the Treaty nearer than Bangalore, some 450 miles from Trevandrum. The normal peaceful condition of Travancore has probably made the rulers of the country acquiesce for some years in an arrangement that only gave them the article stipulated and paid for at 270 miles distant from their capital with a severe ghât country intervening, *viz.*, a battery at Trichinopoly.

The "company of European artillery" which we stipulated to maintain was probably not a merely garrison battery, which is only a company of gunners, but the foot artillery company of those times with post guns, bullocks and luscars: hence the battery representing our obligation might well be so maintained and organized that it would be of service in the Travancore country both for field, mountain, and siege train purposes, and thus be really more useful than a horse field battery.

By the sobering efflux of time the urgency of being prepared for Moplah outbreaks may be diminishing, but the necessity for mountain and field guns might still at any time arise on that account.

As a reserve, a battery at Cannanore is undoubtedly well placed for removal by sea on an imperial necessity arising.

Major H. C. Lewes, Commanding 1 Battery 1st Brigade, Royal Artillery.

Major J. Haughton, 1-8th Brigade, Royal Artillery.

Major F. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

I cannot. Anything that has presented itself to my mind as adding to efficiency has also meant expenditure.

Mountain battery baggage ponies might be worked by the commissariat, provided they were available for periodical parades at short notice. This used to be done in the case of bullocks belonging to the spare line of wagons in field batteries.

Yes; I can suggest the following :—

1st.—The prohibition of exchanges among officers within one year at least of a battery's leaving England for India.

2nd.—Disallowing the expenses of travelling to officers who are transferred for their own benefit.

3rd.—Prohibiting the volunteering of officers to do other than their own duties.

4th.—Avoiding the appointment of staff sergeants to batteries just about to embark.

5th.—Promoting non-commissioned officers entirely in the batteries.

6th.—Attaching a general service wagon to each battery, and taking away the spare gun-carriage.

7th.—Taking the supply of line-gear out of the hands of commissariat.

8th.—Keeping the stable line-gear with the stables, instead of carrying it about the country with batteries.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

I cannot suggest any measure that would fulfil both conditions of adding to the efficiency and at the same time decreasing the ordinary expenditure.

Increased efficiency would probably give increased expenditure during peace, though it would be a saving during a campaign.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Do away with second line of wagons.

Major the Hon'ble A. Stewart, Commanding R-C, Royal Horse Artillery.

Reduce European establishment of gunners and drivers (*not* artificers or non-commissioned officers).

Reorganize Native establishment, and introduce Native drivers for wagons, and horse-trainers.

Reintroduce contract system for all minor repairs and for line-gear, but do *not* make the surplus the commanding officer's property. Let the commanding officer keep a contract fund, furnishing his accounts for audit of the officer commanding royal artillery in the district.

Abolish store limber wagon, carrying stores either by elephants, camels, mules, or smaller carts, according to circumstances.

One spare gun-carriage per battery is more than is required when artillery does not expect to meet artillery in the field, or when the enemy's artillery is of an indifferent order.

Spare gun carriages should be attached to ammunition columns, and not to each battery.

The store cart should be upon springs. Next to the store limber wagon, it is the most inconvenient and cumbersome artillery carriage.

There are too many horses for a time of peace. Some occupation should be found for a portion of the surplus artillery horses of each *horse artillery* battery.

There are too many sets of horse appointments, which entails waste.

The soldier's kit and appointments are not adapted for Indian warfare, and are unnecessarily heavy.

*N. B.*—If there are too many drivers in a battery of horse artillery, there are also too many in a field battery.

Major C. F. Nairne, Royal Horse Artillery.

I think that the rule—"If you want a thing well done, do it yourself"—applies also to artillery; and I believe that it is also more economical to the State when the commanding officer is made to keep his own line-gear, harness and carriages in repair; and it is most certainly the most efficient plan.

I. The contract system, now condemned, was by far the best and cheapest, and gave least trouble to the commanding officer.

I have commanded a battery for two long periods under the contract system, and now for four years under the present, and I can safely assert that the efficiency is now less, owing to the difficulty and delay in obtaining the necessary supplies.

The next best plan to the contract is the supply by the commanding officer and the submission of monthly bills for the cost.

II. Many articles of regimental necessaries are now supplied to the men from England, which could doubtless be made in India at a less cost. It is not necessary to have certain patterns, merely because they have the same in England; and I think we are going almost too far to obtain exact uniformity.

III. The health and efficiency of the horses will be improved if the allowance of grain is materially reduced, slightly more green food being given for the whole of the hot weather.

Both man and beast should have a rest for, at any rate, four months of the hot weather, and the present ration of grain is the cause of most of the skin disease, *bursatti*, and malignant fever, which are induced by high food and no work. I have greatly reduced these diseases by working for the last three years on this principle, and one seer of gram may safely be cut from every horse; and, in my opinion, the result will be an increase both to efficiency and economy. I can give greater details if required.

IV. I think the present tents needlessly large and heavy. I would not make any more staff sergeants' nor European privates' tents, but substitute double-fly pails, such as are issued to mountain batteries at

present. These tents for mule carriage I consider quite sufficient protection for the height of the hot weather in the plains of India, and would be cheaper to make and lighter to carry.

Major P. FitzGerald Gallwey,  
Royal Artillery.

I think it would add very much to the efficiency of the artillery if batteries of the *same kind* were stationed more together; further, that except where urgent necessity requires it, there should be no single horse or field battery stations. The present distribution does not give a sufficient number of *actual commands* to the lieutenant-colonels. I consider that, with the improved state of the communications in India, so long as we have a certain number of guns in the country in certain areas, our first care should be to collect them at convenient points so as to enable the senior officers to learn their duties *in the field*, and not merely the routine of office work. I find that by such a distribution as I have indicated, there will be actual commands for 32 lieutenant-colonels; this is slightly in excess of the number recently sanctioned; but I would propose to have no others *borne on the strength*, except the above: if this be insisted upon, it will save Government the pay of those lieutenant-colonels who are generally "attached for duty" to stations, but have no commands nor indeed any duties to perform.

In order to shew that 32 officers of this rank is about the fair proportion for India, I have counted the total number on all four lists of the regiment *not seconded* and make it 114; but 14 are to be reduced, leaving 100 as the number to be calculated upon. I find there are about 117 batteries out of India to 86 in India (of royal artillery), which would give about 42 lieutenant-colonels to India, but it should be remembered that the garrison royal artillery out of India have much more to do and more fortresses to look after than those in this country: hence there should be a larger proportion of the senior ranks out of India than in it.

I also consider that regimental colonels should only be employed where there are two or more separate lieutenant-colonels' commands under them. It is absurd placing officers of this rank to command three and four batteries, which is the case now according to the last order. In several districts they have absolutely nothing to do but to inspect once a year and sign returns.

I would beg to refer to the map\* which I am sending to the Deputy Adjutant General, Royal Artillery, and the explanation accompanying it showing what I propose in the way of artillery commands.

I am of opinion, too, that we have a much larger number of garrison batteries in India than are required. Making every allowance for siege trains and the care of the few forts, worthy of the name, which are to be found in the country, I think five or six garrison batteries might be easily dispensed with. Although in my proposed army-corps scheme I have not shown this reduction, I shall be happy to give the details if required.

I also think it a mistake having so many European mountain batteries. I believe, according to present intentions, there are to be four of these for Bengal (North-West Frontier) and two for Burmah: the latter are desirable, as there are no Natives to be found in those parts fit for the service. But as regards the Punjab, I am of opinion that the Native mountain batteries are *very much* more efficient than any royal artillery battery can be under the system which now exists. In fact, I may say, I think, nothing can be more efficient than the Native batteries on the frontier which I have seen; and I have particularly observed them. I have also had considerable experience in seeing European mountain batteries; and I must confess I cannot understand why Government should increase their number. On the score of expense, of course, there can be no doubt; the difference is enormous, if barrack accommodation, married allowances, clothing, invaliding, &c., be taken into consideration. The objection which very properly holds against having any but royal artillery batteries in the plains cannot be said to exist in the case of mountain batteries. In conclusion, I think two European batteries should be the limit for Bengal. I would have one at Khairagalli available for the North-West (to take its turn, of course, along the frontier), and the other at Darjeeling available for the North-East or Burma.

*N. B.*—The bringing of batteries of the *same kind* together at stations would facilitate promotion of non-commissioned officers and reduce expense in sending them long distances: *vide* first part of my reply.

Major W. H. Noble, Royal  
Artillery.

(a) I would strongly urge that some arrangements should be made by which the major of a battery might be relieved from the excessive office work which he is now called upon to perform. He certainly cannot devote sufficient time to his duties as an artilleryman so long as he is expected to perform the work of a paymaster, a quartermaster, and an office adjutant.

(b) More opportunity should be given of working field guns in large numbers. This might be done by having one station, at least, in India in which a large number of batteries were located.

(c) Some machinery is wanted by which petty stores and minor repairs can be provided for, line-gear for example. A certain sum annually might be placed at the disposal of an officer commanding a battery for this purpose. The expenditure of this money should be accounted for half-yearly in duplicate, one copy being sent through the officer commanding the royal artillery in the particular district to army head-quarters, and the other attached to the equipment ledger which is forwarded half-yearly to the examiner of ordnance accounts.

(d) I do not think it is advisable to use horse and bullock draught in the same battery.

I have had some experience with draught bullocks on a march over such ground as may be expected to be met with in time of war, and my experience is that bullock draught is decidedly unsuitable for batteries of horse and field artillery. All the carriages of such batteries should be horsed, and the establishment of bullocks reduced to about six per battery in time of peace.

Major W. R. C. Brough, Royal Artillery.

The present gigantic size of the royal regiment of artillery appears to me to so directly affect both the efficiency and cost of artillery in India, that I trust, in proposing so strong a remedy as the breaking up of it into small regiments, I may be permitted to enter fully on the disadvantages of the present, and advantages which I suppose might accrue from the proposed system.

#### DRAWBACKS TO PRESENT SYSTEM IN INDIA.

##### *Efficiency.*

Frequent shorthandedness in both officers and non-commissioned officers is undoubtedly a great cause in India of inefficiency in batteries. In the case of officers transfer on promotion or appointment to the horse artillery causes much of this shorthandedness. An officer promoted or appointed home at once escapes to England, but, naturally enough, his successor is seldom in an equal hurry to join his new battery in this country, which is thus often deprived, probably at the most trying season of the year, of the services of a major, captain, or subaltern for many months, and when he cannot be spared. The colonel commanding the officer's brigade is at home, but would have little opportunity of judging of the necessity for his services in India, or indeed perhaps voice in the matter. The colonel or lieutenant-colonel commanding the division or district in India could not be consulted in time; and great as the attention paid both by the deputy adjutant general at home and in India to this point is, India is still such a long way from England that sickness, appointment to the ordnance or staff, may leave a battery far shorthanded than is dreamt of at home by an officer when applying for, or the authorities when granting him, leave. Notice of this leave may not reach India, too, till remonstrance would be useless. I am taking the case of an officer promoted from home. Should he happen to be in China, America, at the Cape, or any other stations abroad, it will in any case take him some time to join, if indeed he is not fairly entitled to do so *via* England, and to hope to spend a little time there. I almost think that, even in India, transfer to distant stations tells: an officer is thereby put to heavy expense, and may feel that he would sooner lay out money in exchanging home (thus leaving a "vacancy" for some time) than on a journey from Peshawar to Tonghoo, now that he has had to sell off everything. Had he on promotion but had to join at, say, Rawal Pindi, Umballa, or Meerut, he might have viewed matters differently; as would probably also an officer who found himself transferred on promotion from Rangoon to Tonghoo. I will but just allude to the apparent unfairness of a system of promotion by which one officer, by luck in falling to batteries just home, may remain almost his whole service in England, whilst another may be from ill-luck compelled, unless he exchanges, to remain almost for ever abroad. Paucity of non-commissioned officers arises from two main causes—firstly, non-promotion of any men in lieu of those invalided to England till they are absorbed or discharged at home; secondly, stoppage of promotion to keep vacancies for any non-commissioned officers that may be sent out from home during the ensuing trooping season. Both these causes unfortunately tend to leave batteries shorthanded at the worst time of the year—the summer. Duty then presses heavily on the remaining non-commissioned officers, and they are worn out and energyless by the time that the drill season commences. The present system of promotion to and above the rank of sergeant is, I think, disliked by the men. It is supposed to be by districts. Of two batteries in a district, one may have served eight or nine years or longer in India and have a fair prospect of soon returning home. The other may have just arrived in India. Yet after years of service in India a sergeant or staff sergeant may fall to the newly-arrived battery and have to remain with it, or a new arrival may find

to his delight that he can at once almost return to England. At present this is in a measure avoided by the Commander-in-Chief himself making the promotions, and, when necessary, from outside the district, but not altogether. Under the former brigade system a man knew that, except of his own free will, his promotion would run in his own brigade, all batteries of which would return home about the same time. The great element of uncertainty now introduced prevents many sergeants and corporals being as desirous of promotion as they would have been under the former system, and militates against the chance of newly-arrived batteries.

*Cost.*

That the cost of providing passage by sea to and from ports of embarkation and between distant stations in India itself for the officers, not to mention non-commissioned officers so constantly transferred, must be an immense expense to the State there can be no doubt; and that my proposal would immensely lessen this cost, both at home and in India, I think I can show, and also probably increase the efficiency of artillery in India.

PROPOSED SYSTEM.

*Efficiency.*

I have already suggested the breaking up of the royal artillery into small regiments. I will not inflict my own private views of how this might or should be effected, further than to say that, to minimize transfers and for other reasons which will appear, it would, I think, be necessary to have regiments composed alone of field or garrison artillery. Field artillery regiments to include (to each regiment) a certain number of horse artillery batteries. The strength of a regiment might be so regulated that it could furnish batteries to the stations in a certain district at home, in the Mediterranean or in India, close or fairly close to each other, or a certain set of stations in the colonies, yet each regiment of field or garrison be of the same strength of batteries, not alone on account of home reliefs, but in order that in reliefs in India itself it may be capable of taking up the same stations held by its predecessor. Supposing a regiment of field and a regiment of garrison artillery to be capable of furnishing batteries to the frontier and Punjab, these regiments would have their batteries fairly close to each other. The officers, if they had to move at all on promotion or appointment to horse artillery, would only have to move short distances, and would have to join at once (even if in England on leave and their services were required); for before their promotion it would be well known to which battery they fell, and the officer commanding the regiment would doubtless communicate with them. Temporary vacancies from exchanges would probably be far less frequent. The rule of the rest of the service could be introduced; and an officer exchanging from one regiment of artillery to another would go to the bottom of his rank. Now, officers promoted from garrison to field artillery or the other way often exchange to escape from duties which they dislike or have had no experience of. This, too, would be avoided. Though every officer of every regiment of artillery would (unless employed at home, seconded and succeeded) have to take his turn of foreign service, and could only escape by exchanging or retiring, yet I do think that there would be a larger number of officers with their batteries during the service of the regiment in India than are, as a rule, now present; for the stay of the regiment abroad would be limited to the same period as cavalry or infantry (a stay perhaps shortly not to exceed eight or nine years), and all would see a fair prospect of return home. Many batteries now in India can count far longer service than this, with no prospect of return. Regarding non-commissioned officers, in these regiments their promotion could be arranged for with few transfers, and, as in the case of officers, they could always join at once. Officers commanding, knowing the very men to whom promotion must fall, could be permitted to make acting appointments in the place of non-commissioned officers invalided, to become permanent promotions on the invalids being discharged or absorbed in the depôt battery. The number of non-commissioned officers likely to arrive from the depôt would be small and early known, and there would be no uncertainty and necessity for reserving many vacancies. Non-commissioned officers and men serving always with a fairly small body of officers would know and be known by them, will be more likely to re-engage, and, seeing a good prospect of returning home, be less keen about being invalided.

*Cost.*

There are at present 15 (including the riding establishment) depôt batteries at various stations in the United Kingdom. As the proposed regiments would be much stronger than the present brigades, a less number of depôt batteries would suffice, and the saving of cost of officers so effected would more than pay the staff necessary for each depôt. Men of otherwise good character but given under "home" temptations, to the crime of desertion, might, as now, be transferred to the depôts of regiments abroad, and soon sent out of the way of tempta-

tion; but the less transfer of non-commissioned officers, and perhaps generally of men, the better. I confess I cannot see any other than the above plan of increasing efficiency and diminishing cost of artillery in India. Creating afresh an Indian artillery for local service might do the latter; but in these days of almost hourly progress, without occasional home service, neither officer nor man can be an efficient artillery man, and it would appear difficult to arrange for this.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

I consider that the efficiency cannot be increased without increased expenditure. What is required for increased efficiency is an increased European establishment.

3. Is any alteration of Indian establishment of officers, men or horses, in a battery feasible by which greater economy can be attained without loss of efficiency?

Brigadier-General C. G. Arbuthnot, Inspector General, Royal Artillery for India.

The establishment of horses in a battery of horse artillery might be reduced by ten in peace time.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I do not recommend any alteration in the establishment of officers and men now with batteries in this country. From personal experience of command of horse and field batteries in Bombay, Sind Punjab, and Gwalior, extending over eight years, combined also with the knowledge which I gained as adjutant of a field brigade for three years in this country, and that which my present post affords me ample opportunity of obtaining, I do not consider any reduction of men could be made without positive decrease of efficiency, and that even with the present number it is not at all times, in exceptionally sickly season or epidemics, possible to turn out all the wagons for want of drivers, or all the guns, except by working with reduced numbers of gunners. In addition it must be remembered that a certain number of gunners and drivers are sent to the hills during the hot season: under no circumstances therefore would I recommend any reduction. Neither would I reduce a single European soldier in India. The establishment was barely adequate for our possessions prior to the Afghan campaign, and I doubt its being equal to the requirements of our new frontier.

As regards the royal artillery, I believe its establishment is now reduced to a minimum. It is supposed always to be on a war footing, but the establishment is, as before shown, barely equal to this. It is only necessary to refer to the morning states of batteries in the plains especially during the hot season, to see at a glance that the "number of men fit for duty" is not one too many. Indeed, to horse the spare carriages, a small increase of drivers will probably be necessary.

The number of lieutenant-colonels at present sanctioned is too few, especially when the necessities of Kandahar, Pishin, Kabul, Kuram, and Khyber are considered. The Secretary of State has based the present number sanctioned on the *corps d'armée* system, but the calculation made was erroneous. It has been pointed out, and five more demanded for India.

Again, quarter-masters and quarter-master sergeants (who are not authorized) are absolutely necessary for efficiency, especially at the larger stations, where three or more batteries are located together.

It has been pointed out that, if quarter-masters and quarter-master sergeants are essential to the efficiency of regiments of cavalry and infantry (which undoubtedly they are) for conservancy purposes, &c., &c., they are equally necessary for a division of royal artillery of much larger strength, more extended lines, and larger proportion of Native establishment; but up to the present moment, though the saving by the reorganization has been so enormous, and every endeavour made to save expense to Government in this branch, it will scarcely be credited that these ranks are still not yet sanctioned for the royal artillery, though considered necessary for the other branches.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

This is clearly answered by the above in the negative.

Colonel H. Stroyer, Commanding Royal Artillery, Thuyetmyo.

I consider that there must be less work to be done now by the collar-maker, farrier, and wheeler's shops than before the contract system was done away with. The farrier could be supplied with ready-made shoes. Six or eight horse-keepers for each of the three divisions of a battery of field artillery would be sufficient: they could be employed in the stables in the heat of the day and assist with the harness. A small reduction could be tried in the artificers' establishments I have mentioned, and the matter looked into again after a year's trial. The mountain artillery have no European artificers as a rule, nor have the heavy artillery.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

No.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I think certainly not.

Major Bertie Hohart, R.A., Military Secretary to His Grace the Governor of Madras.

The establishment of battery officers most certainly cannot be reduced, and a proportion of supernumerary subaltern officers ought to be allowed to India as above stated.

The establishment of non-commissioned officers and men, I believe, is generally sufficient to admit of ordinary invaliding to hill stations, sickness and casualties, though most batteries from time to time make an outcry about being shorthanded.

The establishment of horses now laid down for horse artillery and field batteries is, I am of opinion, not more than is required, unless the usual regimental etiquette of bringing every wagon on to a marching order or general battery parade is modified into bringing one for each half battery or each division according as horses are effective, in order to allow of some spare draught horses being always present in the field for casualties in the gun teams.

The present proportion of spare horses might be told off to each battery for service, but the greater number kept with a *depôt* troop as suggested in question 21.

In the way of a general reduction of establishments, I would revert to the organization of the local artillery in India previous to 1857. I believe it answered all the requirements of Indian service, and it has a great deal to recommend it on the score of direct economy in men and horses.

I mean—

(1) The gunner and driver system in horse artillery and horse field batteries.

(2) Pole draught in both branches, and the riding of the horses by certain numbers of the gun detachments in the former.

(3) In each battery a certain number of gun lascars for the service of ammunition, and syce drivers for the centres of wagons and spare horses, &c., under European command.

(4) A proportion of heavy field batteries with bullock draught instead of field batteries, at some two battery stations, such heavy batteries being little more than the *personnel* of garrison batteries, and the field exercise being limited to the simplest manœuvres. A bullock battery is not certainly adapted for rapid marching, but may be quick enough as a reserve. The advantage of a garrison battery having the ability to march, and yet be independent of stable work, is that the battery is available for station duties as garrison artillery, or for transfer at short notice. The regular gunners might at certain stations be supplemented or replaced at the post guns by volunteers.

A reintroduction of the above organization must depend on the re-establishment of a local artillery, as such change could not be made applicable to batteries coming from home, and belonging to an organization adapted for service where there can be no Native regimental auxiliaries.

If it be objected that the old horse artillery system could not for many reasons be adopted and practised side by side with the separate detachment system, such changes as I suggest might be limited to the home and local field batteries being on the same footing, and to a proportion of garrison batteries (all such being local) having light siege train, heavy field and mountain equipments respectively attached. The horse artillery batteries like the European cavalry should be all from the home establishment.

As regards the gunner and driver system and objection on the score of heavy gunners riding draught horses, it may be noted that it is not less possible now than formerly in India; in fact the reverse, as the men are not generally of such a heavy stamp as those who then enlisted, and the stud bred and Australian horses are bigger than Arabs and Persians, though the exchange for the latter may be deplored, as some loss in stamina and endurance under hardship. A proportion of men of the present driver standard would very properly always be enlisted for permanent driving duties.

As regards pole draught, I have always felt that the smartness and precision given by shafts to manœuvring is obtained at the expense and difficulty of maintaining a supply of especially large wheel horses, and at an increased difficulty of hooking in or replacing disabled shaft horses in comparison with the ease of shifting pole horses, particularly with nervous or half trained remounts, reduced detachments, &c., on service. With pole teams all the hand horses can be ridden, and except as to breechings and wheel traces, every horse is equipped alike,—a simplicity lost with a shaft team. Economy is also apparent in such details. As the former system is still in the recollection of so many officers of the regiment, I only throw out these suggestions with a view to economy; and as I believe the organization of the local artillery had been brought to a great state of efficiency in 1856-57, the details of the system might be followed and resumed in most respects with advantage.

Major H. C. Lowes, Commanding 1 Battery 1st Brigade, Royal Artillery.

I can think of no such alteration. Certainly no officers or men can be spared; and from my late experience in Afghanistan, I found all the horses absolutely indispensable.



Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse Artil-  
lery.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

No alteration that would combine greater economy with equal efficiency.

The difficulties in replacing horses and men in case of casualties occurring are so great, that I do not think the establishment could be diminished.

Were it possible to fill up with men and horses as casualties occur, the establishment of both might be slightly reduced.

If every soldier sent to India was over two years' service, I believe it would be found greatly to increase efficiency, as probably sickness among the troops would be materially diminished. This I know according to the present system is next to impossible.

No! Unless surgeons instead of surgeon-majors are attached.

Officers no; non-commissioned officers no: all will be required for supervision. Men yes, by substitution of *unarmed* Native for *unarmed* European drivers of ammunition wagons and spare carriages. (A certain number of the syces could become drivers.)

Employ Natives, under supervision, to break horses. Undoubtedly there are too many horses in a horse artillery battery for absolute necessity. The surplus being reserve, each reserve pair of draught horses should have a Native driver and be used *moderately* for local purposes.

Each reserve riding horse should have a Native syce, rider and trainer, until drafted permanently into its place.

I think it worthy of consideration whether by altering the carriage of the ammunition of first line of wagons, at any rate of some batteries, you might not secure more economy and from the nucleus of various kinds of transport for the ammunition which might prove very useful in case of war beyond the frontier.

If each battery's line of, wagons had—

battery	{	half-horsed wagons, ammunition	}	pack	
		half			bullock wagons
					or camel
					or mule
		or pony			

(the ammunition columns being planned upon the same principle), you could rapidly organize ammunition transport at any given point upon the frontier, of whatever kind you might desire, without entirely denuding any battery of its first line supply, whilst you would be able more leisurely to reform what had been taken.

If ammunition columns are introduced, the second line wagons would be discontinued, and 50 bullocks and their drivers reduced. This, however, will only shift expense from a battery to the ammunition column.

Bullocks should not be kept for the second line, as their pace is so different to that of the rest of the battery, that even on the line of march it takes one officer and a certain number of men just double the time to do the march required for the rest of the battery.

If the retention of the second line wagons be decided on, I would abolish the 50 bullocks and add 22 more horses to the peace establishment of royal horse artillery batteries, and have the second line drawn by horses; but then an addition of 18 drivers would be necessary.

II. In peace time I think seven horses might be reduced from batteries of royal horse artillery, four leaders, three detachments.

III. Surgeons-major do not require allowance for three chargers.

I think not in horse or field batteries; but I am strongly of opinion that a saving might be effected in heavy and mountain batteries by reducing them to four guns.

As regards heavy batteries, the present armament (of some at least) is—

3	40-pr. R. B. L. guns.	} mortars.
2	8"	
2	5½"	

I venture to say that the mixing up of so many different pieces in the same battery is a mistake, and further that, certainly as regards the 5½" mortars, they are utterly useless. It is difficult to conceive any operation in the plains of India or in any tolerably open country which could not be much more effectively carried out by 40-pr. guns than by S. B. mortars. If any very exceptional operation where extreme high angle fire were required, a mortar could always be obtained from the nearest arsenal; besides we have (or are to have) siege trains which contain pieces suitable for such work. The 40-pr., from its extreme accuracy and long effective range, can reach any place likely to be met with. I therefore consider that a heavy field battery or "battery of position" should consist, as at home, of four 40-pr. guns; and as long as we have a supply of them and their ammunition, there can be no better guns than the Armstrong 40-pr.

The saving in *personnel* would be as under:—

<i>Present.</i>	<i>With four guns.</i>
1 major.	1 major.
1 captain.	1 captain.
3 lieutenants.	2 lieutenants.

Major C. F. Nairne, Royal Horse  
Artillery.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

<i>Present.</i>	<i>With four guns.</i>
2 staff sergeants.	2 staff sergeants.
4 sergeants.	4 sergeants.
4 corporals.	4 corporals.
4 bombardiers.	4 bombardiers.
1 smith.	1 smith.
1 wheeler.	1 wheeler.
2 trumpeters.	2 trumpeters.
70 gunners.	48 gunners.
93	70
5 horses.	4 horses.

At present the fifth horse is for one of the sergeants, who is called a "cattle sergeant." I should make the quarter-master sergeant do this; his duties are far lighter than in horse or field batteries.

The total saving in officers, men, and horses would be—

1 lieutenant.  
22 gunners.  
1 horse (and 1 syce).

An increase of three elephants would be necessary, but the number of bullocks would be reduced as under:—

<i>Present number.</i>		<i>Bullocks.</i>
	4 40-pr. ...	80
300	19 wagons and carts ...	114
	Spare 20 p. c. ...	40
		234

saving 66 bullocks.

There would be a corresponding reduction in sirdar drivers, drivers, bhisties and one or two others.

Four wagons per gun are kept up with bullocks, &c., during peace time. Carrying with the gun limber 122 rounds apiece, I question whether three wagons per gun would not suffice; they would carry 94 and could be made to carry 100 rounds a gun. This is a very fair allowance, considering that a shell every three minutes would be quite enough to fire in any case where there was an *urgent call* for the battery in the plains of India, and the ammunition at this rate would last 20 hours' continued firing.

If this reduction were made, the fourth wagon could be kept in battery charge at the station, bullocks only being supplied for it if necessary.

Next, as regards mountain batteries, how few places there are on the hillside where a good position for all six guns of a battery is obtainable. Moreover, the united command of more than four guns is, from the same cause, not often practicable. The officers I have spoken to in the frontier Native batteries are in favor of four guns. Apart from the reasons already assigned, there is a much less train of animals and baggage, and this is a great consideration in hill warfare. I would therefore recommend that *all* mountain batteries should be limited to four guns. The royal artillery batteries require a major, a captain, and *two* subalterns, with a reduced establishment of men, mules and followers, which is easily arrived at.

Major W. H. Noble, Royal Artillery.

I think the true principle to be followed in army organization is to limit the strength in men and horses during peace to that absolutely required to carry on the duties of drill and ordinary movement, and to fill up to full strength from a reserve in time of war.

Now we have no reserve of gunners or drivers in India. Moreover, batteries in India, as regards non-commissioned officers and men, are on the home peace establishment already. We cannot therefore reasonably reduce this strength. In the matter of horses, however, I would suggest that the present establishment in India should be reduced in time of peace and increased in time of war.

I annex two tables showing the authorized peace and war establishment at home and in India, and the proposed peace and war establishments in India.

The latter has been framed on the following principles:—

(a) The peace establishment in India as regards men to be on the same scale as the war establishment at home.

(b) Horse artillery to differ from field artillery only in number of riding horses, saddlery, and mounted accoutrements.

(c) All carriages in a battery to be horsed in time of war.

(d) All carriages in time of peace, except the six gun-carriages, to be drawn by either four horses as at home, or by bullocks if on a route march.

(e) Drivers of spare gun-carriages and three wagons carrying reserve ammunition to be Natives, so that these carriages in time of war could be organized as part of an "ammunition column," driven by Natives under European supervision; the Native establishment of each battery to provide for this.

(f) The number of carriages on a war establishment at home and in India, to be the same.

Detail of 9-pr. R. M. L. batteries in men and carriages on the peace and war establishments as at present authorized at Home and in India and as proposed in India.

PARTICULARS.							ESTABLISHMENT IN MEN AND CARRIAGES.																				
							AT HOME.				IN INDIA.																
							PEACE.		WAR.		AT PRESENT.				PROPOSED.												
							Horse.	Field.	Horse.	Field.	PEACE.		WAR.		PEACE.		WAR.										
											Horse.	Field.	Horse.	Field.	Horse.	Field.	Horse.	Field.									
<i>Men.</i>																											
Staff sergeants	...	...	...	...	...	...	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2						
Sergeants	...	...	...	...	...	...	6	6	6	6	6	6	7	7	6	6	7	7	7	7	7						
Corporals	...	...	...	...	...	...	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6						
Bombardiers	...	...	...	...	...	...	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6						
Gunners	...	...	...	...	...	...	70	66	70	72	76	76	76	76	76	76	76	76	76	76	76						
Drivers	...	...	...	...	...	...	61	61	73	65	54	54	54	54	64	64	64	64	64	64	64						
Trumpeters	...	...	...	...	...	...	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2						
Artificers	...	...	...	...	...	...	7	7	10	9	5	5	5	5	5	5	5	5	5	5	5						
<b>TOTAL</b>							...	158	154	175	168	157	157	158	158	167	167	168	168	168	168	168	168	168	168		
<i>Carriages.</i>																											
Gun	...	...	...	...	...	...	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7						
Wagons	...	...	...	...	...	...	6	6	6	6	12	12	12	12	6	6	6	6	6	6	6	6					
							Limber ammunition	...	...	...	...	...	2	6	6	6	1	1	1	1	1	1	1	1	1	1	1
							Forge	...	...	...	...	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cart	...	...	...	...	...	...	...	...	...	...	2	2	2	2	2	2	2	2	2	2	2	2					
							Store limber	...	...	...	...	...	...	...	3	3	...	...	...	...	3	3	3	3	3	3	3
<b>TOTAL</b>							...	9	13	16	16	23	23	23	23	20	20	20	20	20	20	20	20	20	20		

Detail of 9-pr. R. M. L. batteries in horses on the peace and war establishments as at present authorized at Home and in India and as proposed in India.

REQUIREMENTS.				ESTABLISHMENTS IN HORSES.											
				AT HOME.				IN INDIA.							
				PEACE.		WAR.		AT PRESENT.				PROPOSED.			
				Horse.	Field.	Horse.	Field.	Horse.		Field.		Horse.		Field.	
								Peace.	War.	Peace.	War.	Peace.	War.	Peace.	War.
<i>Riding.</i>															
Staff sergeants	...	...	...	2	2	2	2	2	2	2	2	2	2	2	2
Non-commissioned officers	...	...	...	12	6	12	12	18	18	12	12	12	13	6	13
Farriers	...	...	...	1	1	1	1	1	1	1	1	1	1	1	1
Shoeing-smiths	...	...	...	1	8	3	1	2	2	1	1	2	1	1	1
Trumpeters	...	...	...	2	1	2	2	2	2	2	2	1	2	1	2
Gunners	...	...	...	36	...	36	...	36	36	...	...	36	36	...	...
Spare	...	...	...	2	2	6	4	13	13	2	2	6	10	2	4
Total Riding				56	13	62	22	74	74	20	20	58	66	13	23
<i>Draught.</i>															
Guns	...	...	...	36	36	36	36	36	36	36	36	36	36	36	36
Wagons	{ Limber ammunition Forge Store limber Ammunition and store	...	...	8	24	36	36	36	36	36	36	24	36	24	36
		...	...	4	4	6	6	6	6	6	6	4	6	4	6
		...	...	...	...	...	16	...	...	...	...	...	18	...	18
		...	...	...	...	...	...	...	...	...	...	...	4	...	4
Spare gun-carriage	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carts	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...
Spare	...	...	...	4	2	12	8	24	46	12	32	12	24	12	24
Total Draught				52	66	106	102	104	126	90	110	76	138	76	138
GRAND TOTAL				108	79	168	124	178	200	110	130	134	204	89	161

It appears from the foregoing tables that the proposed establishment would entail the following changes:—

(a) An increase of ten drivers to each battery of horse and field artillery in India.

(b) A decrease of forty-four horses in royal horse artillery, and twenty-one horses in royal artillery, batteries on a peace establishment.

(c) An increase of four horses in royal horse artillery, and thirty-one horses in royal artillery, batteries on a war establishment.

Those batteries which belonged to brigades on a war strength would of course be always on a war establishment of horses.

Major W. R. C. Brough, Royal Artillery,

I cannot think that any reduction in the number of officers to a battery is possible without loss of efficiency. In horse and field artillery I believe no reduction can be safely made in non-commissioned officers or drivers or in gunners in the horse artillery; but in a field battery, where none of the gunners need be trained horsemen or are employed as horse-holders, 16 gunners might be spared. This would leave with the No. 1 (a non-commissioned officer) eleven men per gun; and as six can work our present gun, allow for some casualties. This reduction I would not make in batteries stationed near the frontier or in a few other positions in India. It has been found possible at home to diminish the number of wagons with a field battery to three in time of peace; and I see no reason why this should not also be done in many parts of India. The reduced battery would be far from incapable of taking the field in case of disturbance. It would have a fair supply of ammunition to begin on; and as there would be a wagon to each division, the smallest unit of artillery permitted, two guns, could be detached. At home the number of wagons with a horse artillery battery is still further reduced; but this seems hardly advisable in India. I would suggest their reduction to three also. These reductions not to affect batteries on the frontier or other stations as before. I have already, speaking of transport, ventured to sketch the large depôts which it will, I think, be found necessary to establish; and I would propose that the three other wagons of each of these batteries should be stored in the nearest ordnance depôt. We may almost hope that such disturbances will never again arise in India as to demand the services of every battery at once and for a long period; and I would only propose to have at each depôt horses for a certain proportion of these reserve wagons. These horses to be worked by syce-drivers in transport of ammunition, ordnance stores, &c., during peace; but on a battery or batteries being required for service, the wagons and their horses, with their harness and kit, to be despatched by rail to the most convenient spot, where the European drivers of the battery would be awaiting them, and whence they could be marched under its captain to join the battery if it had gone on (the syce-drivers would belong to the ammunition column, and would not therefore accompany the horses.) A reduction of the number of wagons to three would admit of twenty draught horses being taken from each of the batteries. It may be asked how in case of movement the line-gear is to be carried. My suggestion is to leave the parts of it not required in cantonments. Every horse in the battery has already on him a head-collar and picketing chain. A nose-bag, brush, and curry-comb are also carried by him. Two blankets—and more clothing no horse requires in India at any season; can be carried, as now, on valises and lids of boxes, the picketing ropes on each gun limber, leaving heel ropes and keys and a feed of grain for the wagons. The horses to be retained at the depôts for the reserve wagons need not be of the expensive class required with the battery. The stout horse “not trooper height,” be he country-bred, Northern, Persian Gulf Arab, Deccanee or Mysore-bred, commands little money, might be effectively used in these wagons, and would be suitable for the work I propose for him in peace time. Guns must have power in draught to enable them to loose the least possible time between points of action. Wagons can follow much more quickly, yet arrive in time to supply ammunition as required. The three wagons with the battery horsed with the present class would form a reserve to supply and in peace keep on supplying the guns. In other branches of the artillery I will only suggest that perhaps officers commanding mountain batteries will be found to be able to spare a few of the big gunners who now play with the little guns; and that should the requirements of Indian forts be found to admit of batteries being kept together, a major, captain, and three subalterns would be capable of managing a district and garrison battery of double the present strength—a saving of the cost of half the present officers and staff.

Captain W. Law, Commanding C-2nd Royal Artillery.

I think certainly not. These establishments are already below the minimum necessary to enable a battery (horse or field, I have no other experience) to turn out efficient for service.

Captain A. D. Anderson, Royal Artillery.

See answer to question 1.

4. What are your views with regard to the maintenance of the second line of wagons?

Brigadier-General C. G. Arbuthnot, Inspector General, Royal Artillery for India.

Second line wagons should be abolished.

Colonel A. H. Murray, Deputy Adjutant General, Royal Artillery in India.

I.—To do away with second lines in artillery charge in peace time, except at certain stations where it may be desirable to keep them up owing to isolation, and then to have three extra wagons horsed at all times.

II.—In time of war to have all second lines reduced from six to three wagons, and which in the plains or for country beyond the sea admitting of draught, should be horsed; but in places where draught is not suitable, the ammunition to be carried on pack animals. This will give in the field artillery in peace time—

Shrapnel shell	...	...	...	112
Common „	...	...	...	32
Case shot	...	...	...	4
				148

rounds per gun; and in war time and at stations where the extra wagons are kept up an addition of—

Shrapnel shell	...	...	...	42
Common „	...	...	...	12
				54

rounds per gun, being a total of—

Shrapnel shell	...	...	...	154
Common „	...	...	...	44
Case shot	...	...	...	4

amounting to 202 rounds in all per gun.

This I think under ordinary circumstances may be accepted as sufficient to be in artillery charge.

III.—I would also horse the spare carriages. This has been done in the batteries in the Khyber and with great advantage. It stands to reason that the spare gun carriage, store limber wagon, and store cart carrying the half wroughts, tools, &c., necessary for repairs, should be at all times well up with the battery, and which with bullock draught is impossible. Very often they are not in camp till late at night, and the delay caused by want of tools, &c., is serious.

IV.—Assuming, therefore, that bullock draught is done away with in horse and field artillery, I would propose the retention of five of these animals with each battery instead of seven as hitherto allowed for the purpose of removing litter from the lines, taking stores, &c., to and from the station, bringing in earth for stable, conservancy, repair of walls, standings for horses, &c., and for numerous other purposes for which these animals are daily utilized and required by every battery; and as regards horse artillery, I consider a reduction of six sets of riding appointments per battery quite feasible. As far as saving in horses is concerned, I think 16 in all might be dispensed with by each battery in time of peace with the present organization; but these would be required for horsing the two spare carriages, *viz.*, spare gun carriage and store limber wagon, as previously advocated, and the permanent saving effected would, therefore, be the 17 bullocks now used for this purpose.

In the stations where the three extra wagons proposed for war establishment are kept up, 18 additional horses would be required as a minimum, but against these there would be the reduction of 42 bullocks or the whole number now sanctioned for the second line of wagons, except the five previously referred to.

To recapitulate: The present strength in horses of batteries of horse artillery not located at isolated stations will horse the two spare carriages, and all bullocks (except five), *viz.*, 54, can be dispensed with while at isolated stations; bullocks as above can be dispensed with, but 18 extra horses with harness and 9 European drivers will be required.

As regards field artillery, field batteries will require 14 more horses for their three spare carriages, *viz.*, spare gun carriage, store limber wagon, and store cart; and against this item there will be a permanent saving of 24 bullocks, while at stations where batteries are not supplied with the three extra wagons (proposed for war establishment), a further saving of 42 bullocks will be effected; or, deducting 5 from these for battery purposes, makes a total of  $24 + 42 - 5 = 61$ .

Each battery kept up to war establishment will, as in the case of the horse artillery, require 18 additional horses and harness; also nine drivers.

In addition to the batteries at isolated stations above referred to, certain batteries belonging to *corps d'armée*, any portions of which are ordered to be kept up to war strength, should also be equipped with the three extra wagons; these will be in proportion to the number of troops kept ready for immediate service.

It might happen that some of the batteries at out-stations to which it is proposed to give the three extra wagons would, from their position in *corps d'armée* circles, be included among those required to be kept up to war establishment under the army-corps system; but under all circumstances, whatever be the force laid down as necessary to be kept in readiness to take the field, batteries in recognized proportion to such force should be at all times retained in a state of preparedness.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I think the arrangements existing previous to the late war, as regards their maintenance at certain stations only, were quite satisfactory. The change of frontier will naturally affect an alteration in these stations; but I would adhere to the principle, which is sound.

Colonel H. Strover, Commanding Royal Artillery, Thayetnyo.

I consider the present system, which appears to me to be similar to that followed in England, a good one, except that, as in this country, they may be required at short notice; where there are bullocks in the care of the commissariat for the second line of wagons, the battery should parade with them once a fortnight, thus parading with two lines of wagons. But where bullocks may not be available, the officer commanding the battery should inspect the wagons once a month, and be responsible that they are fit for immediate service. This is more necessary when the wagons are filled with ammunition, as plugs are liable to corrode in the shells, R. L. percussion fuzes to get verdigris on them, and the wheels also, or rather the axletrees, require grease occasionally.

Colonel A. C. Johnson, Royal Horse Artillery.

I am of opinion that, unless the second line of wagons is horsed, which would add considerably to the expense, they could advantageously be dispensed with, the ammunition, stores, &c., being carried in boxes to be devised for that purpose equally suitable for mules or camels.

Reports on this subject were forwarded through the Assistant Adjutant General, Field Force, South Afghanistan, in May last.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

I consider that the second line of wagons, as drawn at present, *i.e.*, by bullocks, is an encumbrance to a battery. I therefore believe it might be dispensed with.

In the recent campaign in Afghanistan, the complement of syces allowed was 10 per cent. on the peace strength of horses per battery, with one additional syce per horse of the number to increase to war strength, making a total of 31 syces.

By the work done during the campaign it was proved, therefore, that it was possible to do without the peace complement of these followers, but I noted at the time that it appeared to me very questionable if it would not have been better to have taken no syces whatever, and in their stead to have taken an equal number of drivers (Europeans). The latter would have been a great augmentation to the effective strength of the battery.

Syces can doubtless be trusted with night duty in the stables in peace time; but I do not think they can be depended on for such duty on service under supervision of course in both cases, and even picked men succumbed to the effects of cold and exposure and became all but useless.

I also noted the following calculation at the time: the rations too carried for Natives are all but as heavy as for Europeans:—

<i>Europeans.</i>	<i>Natives.</i>
1½ lbs. of bread.	1 scer of atta, wheat or rice = 2 lbs.
1 lb. of vegetables.	Ghee, salt, dhall, &c., about ½ lb.
½ lb. tea, sugar, salt, &c., &c.	
<hr/> Total 2½ lbs.	<hr/> Total ... 2½ lbs.
Wood, bought.	
Meat, driven.	

It appeared to me too very doubtful if the Native artificers were of much use in the campaign, as they did not appear to have the stamina to withstand the hardships and do their work, and as they took time to cook their food.

I would prefer having the number of European artificers increased and the Native artificers abolished for such a campaign.

My battery was quartered in Sind before the campaign. There batteries are supplied with fodder by the Commissariat department, and have no grass-cutters. On being ordered on service, we were supplied with grass-cutters, though from the accounts of the country to be passed through it appeared certain grass would not be found along the route.

As it turned out, the grass-cutters did next to no work as such, and they were most of them sent back from Kandahar, and another large batch of them was sent back after our advance on Girishk.

I cannot see how, if a large army is on the move, it can be supplied with fodder by grass-cutters; from the very nature of this and neighbouring countries it seems impossible to feed a large number of animals with the grass just found along the route.

Even in peace time there are many routes where grass is difficult to procure. Any one who has marched along the Grand Trunk Road from Lahore to Peshawar knows of the difficulty of getting grass along it, by simply cutting what can be found.

I think, therefore, that grass-cutters might be dis-established altogether, and that the commissariat should supply fodder both in peace and war.

What I have said about syces and Native artificers applies to a campaign in a cold climate. Whether they could be dispensed with in a campaign in the plains of India during the hot season I cannot say; but should judge that they could not.

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

I would keep them up as at present; their maintenance costs "nothing;" the bullocks are used in all stations by the commissariat.

I would however strongly recommend a pair of shafts for or horse draught to be carried under *each* wagon body of the second line.

Major Bertie Hobart, B.A.,  
Military Secretary to His Grace  
the Governor of Madras.

I do not think the maintenance of a second line of ammunition wagons of the field artillery pattern anywhere necessary, although certainly at stations remote from arsenals and depôts, and near the north-west frontier of the Empire, and in or overlooking Native States (if not everywhere). I would let each battery have a reserve of ammunition packed in cases as received for the ordnance department with carts of a strong rough sort for bullock draught, though not too high or heavy, so that the ordinary bullocks of the country may be used when large Government bred bullocks are not available. The description of cases should be such that they can be opened for inspection, and the ammunition or the cases themselves (see appendix A) easily transferred to limbers or wagon bodies; and the pattern of carts such that, though they could not carry kits, line-gear, or the dismounted escort on a march, might be used when empty for various cantonment purposes.

Major H. C. Lewis, Commanding  
I Battery 1st Brigade, Royal  
Artillery.

It could be advantageously abolished. The wagons drawn by bullocks hamper the movements of a battery and throw extra work on officers, men, and horses.

The second line cannot keep up with the battery, and without labor from horses and men that have enough, and sometimes even more than enough in other directions, they could not keep up at all. During the march to Candahar several teams of horses had to go back day after day some miles to help to bring the second line into camp, and this generally, of course, after the heaviest marches. It was heart-breaking and harassing.

The ammunition can best be carried on the backs of camels, mules, or ponies.

There would be little difficulty in designing boxes to contain it. It would then never retard progress, but would always be up with the baggage and camp equipage; of course separate and under a special guard. Less than 30 camels, I think, were required, but say 50 were needed, to carry the ammunition, stores, and a small field forge. You would at once do away with six ammunition wagons, one store wagon, and one forge; the latter would release six horses, and the other carriages 44 bullocks. The six horses could then be utilized for the spare gun-carriages, and that would give eight more bullocks, and if good boxes were designed for the conveyance of office books, stationery, &c., &c., the store (or "captain's") cart would not be needed, nor any bullocks. *On service*, then, I propose to do away with the forge, the store-limber wagon, the store cart, and the second line of wagons, and to substitute—

- (1) a small forge to be designed for carriage on camels or mules;
- (2) boxes for quarter-master's stores likewise designed for similar carriage;
- (3) boxes to contain office material, which with a table and a few stools could be carried as above;
- (4) ammunition boxes for carriage as above.

The transport question comes further on in this paper.

Major J. Haughton, 1-8th Brigade,  
Royal Artillery.

I always thought the second line of wagons was maintained with advantage to the service. The bullocks were employed by the commissariat in useful work, and yet available at fixed times for marching order parades.

Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

I consider their maintenance with batteries to be unnecessary.



Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

Major C. F. Nairne, Royal Horse Artillery.

Major P. Fitzgerald Galloway, Royal Artillery.

Major W. H. Noble, Royal Artillery.

I consider that a second line of wagons is necessary and must be maintained.

Do away with them.

By all means abolish them.

Circumstances might still arise in India which would make it necessary for batteries to have all their ammunition at any rate in the same station with them, *i.e.*, that a battery should be independent for a time, if at a distance from an arsenal. Therefore, if ammunition columns are not instituted, certain batteries must keep up their second line wagons.

I have always been of opinion that it is a great waste of money keeping up second lines of wagons in peace time with our present system. Of course they are required in war; but even then commanding officers look upon them as an incumbrance.

Owing to the isolated position of portions of the army in India, and to the possibility of communication between different parts of India being interrupted or cut off, I am in favor of keeping in battery charge a proportion of reserve ammunition such as that represented by the second line of wagons.

It does not follow, however, that this reserve should be carried in the field by means of limber ammunition wagons; on the contrary, it should, in my opinion, be packed in wooden boxes and metal-lined cases of such dimensions and weights as would admit of either camel or mule transport.

But as a wheeled vehicle is the best of all transport, I would arrange that this reserve of ammunition could be so carried.

This might be done as follows:—

(a) Abolish second lines of limber ammunition wagons.

(b) Issue three ordnance store carts (two-wheel with sides) to each battery, such carts to be adapted for either bullock or horse draught, or, if carts be objected to owing to the weight thrown on the shaft and horse's back when going down hill, substitute wagons of a pattern somewhat similar to the home general service wagon.

(c) Issue such a proportion of ammunition packed in boxes and metal-lined cases of the dimensions above referred to as will admit of the load of each cart or wagon not exceeding 30 maunds.

(d) In time of peace let the ammunition be placed in regimental store, and the carts or wagons used for carriage of forage or other purposes in the lines being drawn by bullocks. When the battery takes the field, let the ammunition be placed in the carts or wagons, and the latter be drawn by horses.

These carts or wagons could then either accompany the battery as a reserve, or a number of them might be formed into "ammunition columns," as circumstances might require.

My object is—

1st.—To pack the reserve ammunition, so that it can be carried by wheeled transport or pack animals.

2nd.—To give each battery in time of peace three useful vehicles of a pattern which can be employed for other purposes than carrying ammunition.

3rd.—To provide an army in the field with a number of strong and commodious vehicles, which on an emergency can be employed in carrying provisions, &c. Witness the service performed lately by the siege train ordnance carts on the march up the Bolan. The ammunition packed in boxes and metal-lined cases was taken out of the carts at Dadur and stored in tents, while the carts were used to throw 3,000 maunds of commissariat stores into Mach. When this service was performed, the ammunition was replaced in the carts, and the train proceeded on its march up the pass.

Major W. R. C. Brough, Royal Artillery.

I cannot see the use of maintaining a second line of wagons drawn by bullocks with horse and field artillery. The advantage of this class of artillery, mobility, is thereby neutralized, or the second line wagons are deserted and left useless as a source of supply in action. With an efficient "ammunition column," their services would not be required.

Major C. Wilson, Royal Artillery.

I would replace the second line of wagons by ammunition train on mules or camels.

Captain W. Law, Commanding C-2nd Royal Artillery.

I think it is an economy as well as adding to the efficiency of the battery. When the wagons are with the battery, the bullocks are available for station duties. If the wagons are collected in an arsenal and the bullocks massed at one station, bullocks must be hired for out-

station work. Moreover, the care of the wagons and ammunition is rendered easier by distributing them, while they are at once ready for field service.

Captain A. D. Anderson, Royal Artillery.

I urge the abolition of the second line. The wagon itself is cumbersome, and bullocks, when the country to be traversed is in any way difficult, are utterly unfit for the work. This was amply proved on the Kandahar line, where 1 horse, 4 field and 2 heavy batteries started with full complements of animals. The second line of wagons of all horse and field and two complete lines of both heavy batteries were handed into store at Quetta or Kandahar, owing to the complete collapse of the bullocks.\* Even up to these points the horses had to be sent constantly back to do their work. If wagons be kept, 4 wagons horsed are preferable to 6 with bullocks. I would, however, recommend the ammunition of second line wagons being packed in leather boxes, similar to those issued to mountain batteries and carried on ponies. Six hundred and forty-eight rounds with cartridges and small stores have to be carried per battery. The shell and shrapnell with odds and ends weigh considerably over 9 lbs., and for simplicity of calculation will be taken at 10 lbs. each.

	lbs.
648 shells at 10 lbs. ...	6,480
648 cartridges at 1 lb. 12 ozs. ...	1,134
Fuzes, implements, &c., at ...	900
150 lbs. for each wagon.	

Total ... 8,514

or loads for 43 ponies at 200 lbs each, while the addition of seven more animals, or a total of 50, would provide for the carriage in a similar manner of the articles now dispersed over the store limber wagon and store cart; the spare gun carriage should be horsed on service. The above would dispense with the necessity of the present peace bullock establishment, the saving on which would be—

Horse artillery—	Rs.
Pay of 8 bullock-drivers, at Rs. 5 ...	480
Feed of 17 bullocks, at 3 seers of gram.	1,224
Total	1,704

Field—	
Pay of 12 bullock-drivers, at Rs. 5 ...	720
Feed of 24 bullocks, &c. ...	1,728
Total	2,448

The number of bullocks actually is only seven in peace time, but the above extra number are kept by the commissariat for each battery, and are at their disposal when required, therefore should be counted. This arrangement would, I submit, enable the second line ammunition to accompany the battery at any reasonable pace and over difficult country.

The peace establishment of ponies has now been distributed as follows:—

Horse artillery—	Rs.
Carrying grass ...	57
„ tents ...	25
Total	82

leaving five spare.

Field—	
Carrying grass ...	42
„ tents ...	25
Total	67

and three spare.

The war establishment, horse artillery, 200 and field 130, are thus disposed of—

Horse artillery—	Rs.
Carrying grass ...	100
„ tents ...	25
„ second line ammunition ...	50
Total	175

or 25 spare.

\* The above ammunition was carried forward on camels.

	Rs.
Field—	
Carrying grass ...	65
„ tents ...	25
„ second line ammunition ...	50
Total	140

or ten over the establishment, necessitating the purchase of about twenty extra to allow some spare animals. If all the batteries were required to fill up their pony establishments for service, 4,375 animals would be required for this purpose.

Thirteen thousand ponies and mules were bought in five weeks for the Bengal famine transport in the districts between Benares and Umritsar:—

	Rs.
Ponies averaging ...	22
Mules averaging about ...	70

Eight thousand ponies were during the months of July, August, and September 1874 registered and held by a retaining fee ready for service in the Purneah district alone; so I think when it is borne in mind that here the collection would be extended over the whole of India, and that the price is liberal, there need be no fear of a deficiency.

I will now give a short summary of the above propositions and their financial results:—

<i>Horse Artillery.</i>	Increase.	Decrease.
	Rs.	Rs.
European establishment ...	6,715	...
Horses ...	...	9,984
Stable establishment ...	...	2,716
Native followers ...	...	2,804
Bullocks and bullock-drivers ...	...	1,704
	6,715	16,708

or a reduction of Rs. 9,993 per battery per annum.

<i>Field Battery.</i>	Increase.	Decrease.
	Rs.	Rs.
European establishment ...	4,050	...
Horses ...	...	4,212
Stable establishment ...	98	...
Native followers ...	...	2,304
Bullocks and bullock-drivers ...	...	2,448
	4,148	8,964

or a reduction of Rs. 4,816 per battery per annum. These figures for the 15 horse and 43 field batteries in India would, therefore, give a total reduction of Rs. 3,56,983 per annum, and without considering the saving on carriage of tents at manoeuvres and on marches. These calculations are roughly worked out, but intentionally not sanguine; and I take the liberty of impressing on the Committee that economy will be by no means the most valuable point of the scheme if considered feasible.

Batteries will, I submit, gain greatly in efficiency. With the proposed large number of men and reduction of horses, guards, duties, stable work, everything will fall light. Leisure will be found available for the instruction of the men in the many points in which their education is deficient. Men can be to a much greater extent than at present taught trades in the different battery-shops. European labor in these artificers' shops will be substituted for Natives. Native followers will be reduced to a minimum. Batteries in peace time would be independent as regards the carriage of their tents, while on service their second line of ammunition can accompany them anywhere, as also their tents; while in the event of an extraordinarily sudden move there are ponies sufficient for carriage of second line ammunition and tents, making arrangements for grass from commissariat, or locally, or substituting bhoosa, grain, &c., for it for the first weeks or so till the full complement of ponies arrived. The weak point also of the scheme is, I submit, taken at its worst. Calculations have been made for placing every battery in India in the field at one time, and thereby creating a heavy demand for horses and ponies. Such a contingency is extremely unlikely, unless on the outbreak of a local rebellion, when, however, every horse and pony would, more than at any other time, be at the service of the State. Ordinary requirements would, I expect, be raising to a war footing half the horse and field artillery in India (more than was required in the last campaign), and requiring the purchase of 1,700 horses and 2,200 ponies.

Captain G. C. Bayley, 13-8th  
Royal Artillery.

See answer to question 5.

### 5. And as to the introduction of "ammunition columns"?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

Ammunition columns should be introduced, but to be of service the wagons must be horsed.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I think the introduction of these in a modified form would be advantageous.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

Ammunition columns are of course a necessity for a campaign; but on economical grounds I would not advocate their introduction into the service in time of peace.

Colonel H. Storer, Commanding Royal Artillery, Thayetnyo.

Ammunition columns would be most useful for small-arm ammunition and for a siege train, also reserves of field artillery, &c.

Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

I consider that as far artillery is concerned, ammunition columns might well take the place of the second line of wagons.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I have no special views on ammunition columns or opinions to offer founded on experience; but holding, as I do with (I believe) the majority of officers in the army, that there is nothing like a regimental system in every department to ensure efficiency and hearty work, I should say that every regiment and every battery ought on service to have its own first reserves of ammunition with the necessary transport train, such trains being combined in columns or separated, according as the corps are moving in brigade or detached.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

The artillery should have with its batteries the amount of ammunition as now carried, including that of the second line. Ammunition columns properly organized are very desirable; but every regiment as well as every battery should have sufficient ammunition under its own immediate control to ensure it against not only the probability but the possibility of running short at any time.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

There should be an ammunition column in each district or division.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

I would advocate the introduction of ammunition columns.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Form them at all stations where there are divisional head-quarters.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

And introduce ammunition columns.

Major C. F. Nairne, Royal Horse Artillery.

I am in favor of the introduction of ammunition columns.

Major P. Fitzgerald Gallwey, Royal Artillery.

I am sure the present system does not work on service. I would therefore have the means of equipping an ammunition column on the English *principle* at each of the four following arsenals:—

Rawal Pindi or Ferozpoore, or half at each.  
Bombay.  
Madras.

Major W. H. Noble, Royal Artillery.

In considering the question of ammunition columns and their introduction into India, it must be borne in mind that, although this organization has been adopted at home, it has no existence, except upon paper.

Such an organization is simply a "delusion and a snare."

If it were necessary to mobilize an army-corps in England at the present moment, the only way in which the six batteries required for the reserve ammunition columns could be organized would be by taking officers, men, and horses from the royal artillery, and thereby reducing the efficiency of that arm.

I am therefore opposed to the adoption of the ammunition column system for India as organized at home, because I am sceptical as to the expense being authorized in time of peace which would be necessary to render this organization efficient in time of war.

Major W. E. C. Brough, Royal Artillery.

I should think their introduction most necessary for the reserve ammunition, not alone of the artillery, but of all arms.

Captain W. Law, Commanding C-2nd, Royal Artillery.

And on the outbreak of hostilities could be formed into divisional ammunition columns. They ought not to encamp or march with the batteries on a campaign, as they lengthen columns and spoil the mobility of a battery.

Captain A. D. Anderson, Royal Artillery.

Organized ammunition columns would undoubtedly increase efficiency, and would do away with the necessity for second lines of wagons in battery charge; but they would require to be able to move and keep pace with the advance. Had General Stewart's entry into Kandahar been in any very ordinary way opposed, he had only 256 rounds a gun at his command and not another round nearer than at least one month's march from him. His Excellency the Commander-in-Chief has assembled a committee, of which General Arbuthnot is president, to work up this question. Its decisions will, I am sure, prove valuable, and will, if carried into effect (or some similar scheme), dispense with the necessity of carrying second line ammunition on ponies as before suggested, and allow of these ponies being used for carriage of men's bedding, kits, &c., and go far towards rendering batteries independent of extra carriage for such purposes. But I am convinced that, whatever organization may be decided on, one of our greatest evils in carriage of our ammunition is the wagon itself,—a lumbering cumbrous article, weighing double as much as the ammunition it carries. The toil and labor of getting these unwieldy vehicles to the front can be testified to by any officer who was on the Kandahar column. I beg to attach a short paper\* on this point from Lieutenant Western, Royal Horse Artillery, advocating limbers. This or some other simple substitute could, I am sure, be found to lessen the present waste of powder on the present wagons.

Captain G. C. Bayley, 13-8th, Royal Artillery.

So far as my knowledge goes, I should be inclined to think the second line of wagons might advantageously be got rid of, *provided*, and *provided only*, that efficient ammunition columns were introduced. With the ammunition in its limbers and one line of wagons, a battery should be able to get through a hard-fought battle; and any more material than may be necessary for this object appears to me to be an incumbrance. But should there be any doubt as to the possibility of having efficient ammunition columns ready to take the field at once on the outbreak of a war, I should prefer to keep the second line of wagons. My idea is, that troops should never be exposed to the possibility of having to fight two general engagements without a fair prospect of being able to replenish their ammunition; but, on the other hand, that neither regiments nor batteries should be encumbered with more than enough for one day's hard and long-continued fighting: any further supply to accompany troops in the front line (or at the head of a column) should be in ammunition columns.

Lieutenant E. C. Wace, R.A., No. 4 (Hazara) Mountain Battery.

I am of opinion that ammunition columns should always be formed, and attached to divisions in the field, their position in the column being regulated by the proximity or otherwise of the enemy. On the present scale of 12 gunners per gun (mountain batteries), it is impossible in time of war to provide a sufficient number of men to look after the reserve ammunition, or to protect it on the line of march, casualties and men on other duties being allowed for. It is essential, therefore, that the reserve ammunition of a battery be taken out of the hands of the commanding officers of batteries, and be placed in a general reserve under commissaries of ordnance, assisted by a trained staff of non-commissioned officers, and escorted by a suitable number of cavalry and infantry especially told off for this purpose, and thereby obviating the evil of weakening first one regiment and then another by detaching companies for escort duty.

## 6. What should be their organization for Indian service?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

Wagons with horse draught should be maintained at the rate of one per two guns for a certain number of guns, and located in units of three at different stations. Forty-five wagons should, I think, be so located on our principal lines of communication as to be available for a force of 90 guns in the Punjab or on the North-West Frontier; and 21 more should be located so as to be available for operations in other parts of the country. On service these wagons would form a divisional reserve, and would be under the orders of the artillery commander, and not attached to batteries. Such a reserve with bullock draught would be useless: horse draught is absolutely necessary.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

In the plains of India I would have the three ammunition wagons of every battery (drawn by horses as proposed) collected, formed into columns, and regularly organized, either by brigades or divisions, according to the size of the force, and be in charge of selected officers, non-commissioned officers, and men of the royal artillery.

\* Vide appendix XXIX.

They should form a portion of the force in the same manner as the ammunition columns at home, for which purpose batteries of royal artillery are taken.

Across the frontier the columns should be composed of trains of mules, ponies, or camels, the ammunition being carried in boxes specially constructed for the purpose.

Each unit or number of units *having one class of ammunition* should be formed into separate columns, under separate officers, non-commissioned officers and men, to be supplied by the garrison artillery. In the case of a single mountain battery, a conductor of stores in charge would suffice instead of an officer. All the columns attached to any one force should be under the command of, and be supervised by, an officer of superior rank—a lieutenant-colonel or major.

In this way supervision of the ammunition, proper care of the loading and feeding of the mules, &c., would be ensured, as also that the ammunition would be at all times ready when required.

The system would be military; and the columns being disciplined and organized under artillery officers and men, great efficiency, I am sure, would result. Relief would also be afforded to the battery commanders, who in the field would be far more profitably employed in the performance of their more legitimate duties than being harassed, as is now very often the case, in looking after their reserve ammunition.

It would so very much depend upon the nature of the country to be operated in, and the enemy to whom we might be opposed, that it is difficult to lay down any definite organization; but I would deprecate in the highest degree the system lately proposed at home, of sacrificing the *personnel* of a battery of artillery for such a purpose. In this country, a selected captain, a couple of subalterns, and a few non-commissioned officers of artillery should, in a very short time, be enabled to turn out an efficient ammunition column with syce drivers.

They could be part of a land transport or commissariat transport corps, aided largely by the carts, &c., of the country. In New Zealand the commissariat transport corps consisted of a few companies of infantry, who had charge of horses, carts, harness, &c.; but in India, when Natives could be depended on, one-half or two-thirds of the drivers could be Natives.

They should be under officers of the ordnance department, who should be of sufficient standing to have junior officers of all branches under them. Steady, intelligent non-commissioned officers from each branch should also be employed.

Pack horses, mules, and ponies or camels for transport. Ammunition packed in specially designed boxes, with description of ammunition painted thereon, the boxes themselves being colored differently. For example, royal artillery, blue; cavalry, black; infantry, red. On the march the ammunition for royal artillery should all be together, that for cavalry separate from the infantry; and non-commissioned officers of each branch should accompany their own special ammunition. As a rule, these columns should be a day's march in rear of main body.

Similar to that of the reserve ammunition column of a division at home, using the second line of wagons in place of the general service wagons, and attaching the spare gun-carriages; bullock draught being substituted for horse, the detail of officers, non-commissioned officers, and men being altered accordingly.

The ammunition column following an army in the field should be under special transport officers, the officer in charge of the whole being with the head-quarters, and taking his orders direct.

The second line royal horse artillery and royal artillery wagons should be with the leading ammunition column. This should be kept sufficiently near to the main body to be able to fill up ammunition in 24 hours.

There should be some arrangement made so as to enable the officer commanding the batteries in getting this second line of wagons up at once by sending for them if required.

A detached battery should have its second line of wagons with it.

In parts of India where there are railways the principal reserve of ammunition might be kept ready on the line of rail to be delivered at the point nearest to the army. In this case a small second ammunition column would only be necessary, of the same size as the first, to move up and take its place when required. The first column going back to the main reserve to replenish. Ammunition columns for the plains might consist of wagons drawn by bullocks for artillery, and of wagons

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

Colonel H. Strover, Commanding Royal Artillery, Thuyetnyo.

Major H. C. Lewes, Commanding 1 Battery 1st Brigade, Royal Artillery.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

carts, and pack camels for the infantry, with a certain number of pack mules that could bring up ammunition to a regiment in action.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

In the plains,—

First reserve might be carried in limbers, or covered two-wheel carts drawn by horses, which and drivers would, I suppose, have to be taken from batteries, as is always done in England,

Second reserve on camels.

In hilly countries—

First and second reserves on camels.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

Considering it improbable in case of local disturbances that we should be opposed by anything except the most inefficient artillery, it appears to me that there are an unnecessary number of field-guns in India which would prove a source of weakness rather than strength, as there are not, in my opinion, sufficient European troops to protect them. The reduction of a few batteries would furnish the material for the formation of ammunition columns.

I consider that all arms should be brigaded by brigades, staff and entire brigades being moved together in relief. Attached to each of these brigades should be brigade ammunition columns. The divisional (or head-quarters of) column should be at or near the arsenal whence it draws its supplies; and it should make the issues and forward by its own carriage the supplies to the brigade columns, who would issue to the regiments and batteries. The major, with quartermaster sergeant and conductor of stores, would be at head-quarters of division.

Captain and subaltern, with sub-conductor of stores, at head-quarters of brigades, or specially detached. The column must have a nucleus of transport and carriage of each kind suitable for the batteries of its particular district. It might also have a certain amount of reserved local carriage to be kept up by contract and a retaining-fee. See proposal on paper H.

Major C. F. Nairne, Royal Horse Artillery.

One ammunition column for each division of the army-corps, with such sub-division as during peace time would allow a part at each station, and on service each brigade or part of a brigade to have its own portion of the column.

The ammunition, both small-arm and artillery, should, I think, be organized for mule carriage. If wheel carriage should be adopted, two wheeled carts would be best; but I prefer mules.

Major P. Fitzgerald Gullway, Royal Artillery.

First, it is necessary to lay down what the columns are required for. I would therefore suppose an *Indian* army-corps, division, or brigade to be as under :—

Army-corps—

3 Infantry divisions.

1 Cavalry brigade.

\*60 Guns (of the nature required).

Division of infantry—

2 Brigades.

1 Regiment of infantry.†

1 " of cavalry.

2 or 3 batteries (of the nature required).

1 Company sappers.

Brigade—

3 Battalions or 3 regiments,

and if *detached* or mobilized by itself, one battery in addition of the nature required.

The corps troops would be—

4 Batteries of the nature required.

2 Companies sappers and miners.

For each division there should be an ammunition column; and I would propose, considering the nature of the enemy generally opposed to us in the East, and the enormous length of our trains, that the amount of ammunition *taken into the field* with each arm should be as under :—

Artillery	...	...	500 rounds a gun.
Infantry	...	...	400 " a rifle.
Cavalry and sappers	...	...	200 " "

\* Because the total of the corps would not exceed 20,000 combatants, and considering the trains of Indian armies, this is quite large enough.

† I find that the divisional infantry regiment makes the divisions stronger than the localized army-corps which I have imagined for India can afford. I would therefore have only a divisional cavalry regiment, which is really more necessary. The number of battalions in a corps, therefore, would be 18, and not 21; this would reduce the trains somewhat.

The amount in possession of the troops and the regimental reserves to be as follows:—

	Horse and field.	Heavy.	Mountain.
Artillery ...	148	122	90
Infantry ...	{ Possession ... 70	30	100 (A)
	{ Regimental reserve ...		
Cavalry and sappers ...	{ Possession ... 20	Nil.	
	{ Regimental reserve ...		

The amount with the *divisional* ammunition columns to be—

	Horse and field.	Heavy.	Mountain.
Artillery ...	76	89	105
Infantry ...	50		(B)
Cavalry and sappers ...	40		

Following the European model, and also to lessen the length of our divisional columns, we should have a corps ammunition column which would be further behind, but yet always up with, the army. It should be divided into three sections (and kept together), one for each division, or rather one-third of the army-corps. If one or two divisions only take the field, and no corps is formed (as in last campaign), the divisional columns must be increased by the amount carried by each section of the corps column.

The amount for each arm with this ammunition column will be per gun and rifle—

	Horse and field.	Heavy.	Mountain.
Artillery ...	76	89	105
Infantry ...	50		(C)
Cavalry and sappers ...	40		

Therefore the totals carried in (A), (B), (C) are—

	Horse and field.	Heavy.	Mountain.
Artillery ...	{ A 148	122	90
	{ B 76	89	105
	{ C 76	89	105
Total ...	300	300	300

This is ample to have near at hand. The balance of 200 rounds should be with the ordnance department at such depôt or depôts as may be selected. For the—

Infantry ...	{ A 100 regimental charge.
	{ B 50 divisional column.
	{ C 50 corps column.

Total ... 200

Cavalry and sappers ...	{ A 20 regimental charge.
	{ B 40 divisional column.
	{ C 40 corps column.

Total ... 100

The balances, *viz.*, 200 rounds and 100 rounds, to be at the ordnance depôts. If there be only a division employed, or no corps formed, B and C will be the divisional reserves.

The above 300 rounds for artillery and 200 and 100 for infantry and cavalry, &c., will be in charge of the officers commanding royal artillery in divisions and army-corps, the balances in charge of the ordnance officers under the general officer commanding.

Next, as to carriage for the above reserves:—

(1) That for the regimental reserve of infantry (30 rounds a rifle) should be, as at present, mule carriage (or in certain countries coolies).

(2) That for the *divisional* reserves should be as under:—

9-pr. ammunition horses or bullocks.	{ The limbers of old pattern ammunition wagons of which numbers exist, and which are of light draught.
40-pr. do. do. ...	
7-pr. do. do. ...	{ Ditto ditto nine per gun for 89 rounds.
	{ Mule carriage, as it must be prepared to follow the batteries anywhere.
	{ Seven mules per gun for 105 rounds.



S. A. ammunition ...

I think instead of making new carts, old artillery limbers could be easily altered to carry eight boxes = 4,800 rounds Martini-Henry or 4,000 snider; perhaps ten—say six limbers a regiment.

Now, referring to the assumed strength of a corps for field service which I have given, and also assuming the following as the batteries required for some particular service (say an attack on Cabul), viz.,—

1 Heavy	...	...	4 guns,
2 Horse	...	...	12 "
4. Field	...	...	24 "
5 Mountain	...	...	20 "
			—
			60

then I have calculated the carriage for each divisional column to be about 80 limbers with two horses or bullocks each, and say 10 per cent. spare = 176; also 47 mules for the mountain batteries, and say with spare 60.

I would take away spare gun-carriages from batteries, and allow one for every two batteries, which should be attached to the ammunition columns, except in mountain batteries, where they should be with the fighting line. Then there would be a forge wagon for the column and a small number of store wagons, say a total of 90 carriages and limbers and 200 horses or bullocks with 60 mules.

This column should be commanded by—

1 major	...	} with a proportion of non-commissioned officers and lascars; drivers to be Natives.
1 captain	...	
3 subalterns	...	

These officers could easily be found from volunteers from batteries not in the field, their numbers of course not being kept up in peace time separately from cadres.

The corps reserve column need not be so mobile; and in order to save the use of camels as much as possible and leave them for other purposes, as well as to utilize the second lines of wagons no longer with batteries, and such other old wagons as are in the country, I propose for this column the carriage should be—

(1) Royal artillery ammunition wagons with limbers having one large box capable of holding harness and materials for repairs and tools required by the batteries and regiments drawn by bullocks.

(2) Camels.

The amount of carriage required will be—

9-pr. ammunition	...	1 wagon per gun with 6 bullocks.
		(wagon bodies only).
40-pr. ammunition	...	23 camels per gun.
7-pr. "	...	3 " "
Small-arm ammunition		} 15 camels per regiment of infantry. 7 " " of cavalry. 9 for 5 companies sappers.

And for a corps having artillery as supposed the total carriage to be—

36 wagons	...	12 per section.
550 camels	...	184 "

One major, one captain, three lieutenants for the above.

The whole of the foregoing columns would be under the officers commanding royal artillery in divisions and the corps. The carriage of the remaining portion in ordnance charge should be on camels under ordnance arrangements.

Having thus sketched how the columns should be organized, I propose, as stated above, that the means of equipping an army-corps should exist at Rawal Pindi and Ferozepur arsenals and a division at each of the arsenals, Bombay, Madras, *i.e.*, the limbers and wagons should be collected there and fitted to carry the ammunition and stores; also ammunition boxes for the mules and slings for the camels. No special boxes are required for the projectiles, but the cartridges would require them for camel carriage, as barrels are awkward and unsafe. Under the transport organization, I have roughly traced elsewhere the number of animals required for the columns should be handy to the arsenals or places of rendezvous of the divisions to where the ammunition would be sent.

I would add that the above system of carrying ammunition is the one obtaining in all modern armies, and I have only altered the English organization where necessary.

It must be remembered that the ammunition columns which accompany an army-corps as organized on the home system are under the officer commanding the royal artillery, and are quite distinct from the reserve in charge of the ordnance department.

It would be easy, I think, to draw up an efficient paper organization by which in time of war the spare gun-carriage and three ordnance carts or wagons with the reserve ammunition of each battery ordered on service might be brigaded together, so as to form an ammunition column.

A captain and subaltern of the royal artillery, a few European non-commissioned officers and steady men, and a Native establishment would be quite sufficient. I would suggest the same scale of reserve as carried by army-corps divisional reserves at home, namely, 76 rounds per gun, or 456 rounds for a battery of six guns.

One hundred rounds of 9-pr. R. M. L. ammunition, with due proportion of tubes and fuzes, packed in wooded boxes and metal-lined cases, weigh approximately 1,560 lbs., so that the total weight to be carried would amount to about 7,100 lbs., or 2,370 lbs. for each cart or wagon.

This is quite within the mark as regards load, since a general service wagon in divisional reserve at home drawn by six horses is loaded with 28½ cwt. of 9-pr. ammunition.

Major W. R. C. Brough, Royal Artillery.

Need ammunition columns differ much in India in their general organization from that laid down at home for service? Suitable light, strong carriages and horse draught (again utilizing the small but strong and cheap horse) with syce-drivers seem to afford the best means of transport for purely mountain warfare. Pack-animals would have to be used, and for external warfare in a mountainous country they should be attached to the columns: the draught animals themselves when the carriages were not required might be so used. Were the carriages so constructed as to allow of the ammunition-boxes, &c., being readily removed, they might often be used in camp for many transport duties. A battery with its first line of wagons, and a regiment with its own ammunition cart, or pack-animals (which should be *always* with it), would in a surprise be fairly independent (in all Asiatic warfare at least), and be unlikely to expend their ammunition before it could be replaced. With the facilities now afforded by rail for transport, the retention of large ammunition columns or many animals during peace would be unnecessary. Carriages, drivers, and animals need not be scattered about the country as those of the second line wagons now are. The drivers, horses, &c., in such numbers as deemed necessary should be attached to the ordnance and reserve depôts near points of danger, where during peace their services could be made available for the many duties now performed by bullock train, &c., and whence ammunition columns of the required strength could be sent to join a force proceeding on service.

Captain W. Law, Commanding C-2nd, Royal Artillery.

One European officer with about eight European non-commissioned officers ought to be able to look after a train of 30 wagons with 100 drivers and 200 bullocks, which would form the first reserve for the artillery of a division. Besides the non-commissioned officers, there should be about ten privates for the care of the ammunition and to assist in maintaining order on the march and transferring the ammunition, &c.

Perhaps some of the garrison batteries might be usefully employed on this duty. As soon as all batteries in India are equipped with the same gun (9-pr. M. L. R.), the duties of the ammunition reserve will be very much easier.

I do not think that heavy batteries should form part of the general ammunition column, as these batteries would rather be reserved for siege purposes and have a train of their own.

Captain A. D. Anderson, Royal Artillery.

See answer to question 5.

Captain G. C. Bayley, 18-8th, Royal Artillery.

I am not prepared to answer this question in detail. The general principle of supply of ammunition in the field I take to be that the supply is threefold, *viz.* :—

- (a) In regimental charge, consisting of, in the case of cavalry and infantry, the ammunition in the men's pouches, and in regimental ammunition carts (as at home), or on regimental pack-animals. In the case of artillery the ammunition now carried in the limbers and first line of wagons.
- (b) Ammunition carried by ammunition columns, which columns should supply all branches of the service indifferently.

As the proportions of the different arms of the service will differ more or less with the nature of each war, so must the proportions of small-arm and field-gun ammunition carried with each ammunition column differ. Each column might roughly supply a brigade. Five or six different scales might be laid down, showing what an ammunition

column would have to carry to supply a brigade, according as it consisted of—

- Regiments British cavalry.
- " Native "
- " British infantry.
- " Native "
- Batteries, artillery.

In fact, it should be settled what the second supply of each unit of the service (taking a regiment and battery as a unit) should be, so many rounds per gun and per man, and the ammunition column would be organized accordingly.

Thus at the outbreak of a war it would be necessary to state what each brigade will consist of. (Here would follow detail, not necessarily giving the number of the particular regiment or battery, merely so many of each.) The ammunition column to carry      rounds per man, and      rounds per gun. Though each brigade as it was mobilized would have an ammunition column provided for it, it should be clearly understood that the column might, if necessary, be taken away from that brigade, and attached to any other brigade, or be disposed of as the Commander-in-Chief or any general might think proper. It should also be allowable for a regiment or battery to get ammunition from the nearest column, whether belonging to its own brigade or not. In short, a brigade would only have the first claim on its own ammunition column, but by no means an exclusive one.

(c) The rest of the ammunition for a force in the field would be carried by any means available.

I consider any further sub-division of reserves of ammunition objectionable, as unnecessary and tending to produce complication. I need hardly say that the ammunition columns should be distinctly military bodies, liable to be sent under fire if need be, though such a necessity should rarely occur. I think they should be authorized to make issues to any corps, on the authority of the commanding officer of that corps alone, to save the delay of requiring indents to be "passed"—a process which involves delay, and so far as I can see does no earthly good. Similarly, every ordnance official should be authorized to supply any ammunition column (also any corps) on indent signed by its commanding officer.

## 7. What should be the nature of the transport for artillery in the field in India, and the various countries in which Indian armies are usually called on to operate?

Brigadier-General C. G. Arbutnot,  
Inspector-General, Royal Artillery  
for India.

This question, I conclude, refers to artillery ammunition and stores. In India wheel transport is the best for horse, field, and heavy artillery; mules for mountain artillery. Beyond the frontier transport should vary according to the nature of the country, from a coolie to an elephant.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

I.—The transport for artillery in the field in India in the plains should be—

(a) Guns and ammunition wagons in artillery charge, horsed.

(b) Carts, camels, and elephants for baggage. As regards the former, I would urge the introduction of the Maltese two-wheeled cart as most useful, in substitution for the unwieldy bullock-cart of the country.

II.—Beyond the frontier, wherever practicable, guns to be horsed; ammunition to be carried, where the use of wheeled carriage is doubtful, in boxes on elephants, mules, camels, or ponies—mules in preference. Elephants, where it is practicable to feed them, should always accompany a battery proceeding on service in Afghanistan,—to be supplied with cradles for carrying, as also a few sets of harness to assist the guns and wagons in passing over bad and precipitous portions of the road, thus avoiding the necessity for taking the equipment to pieces, an operation at all times laborious and causing much delay. As in the present case with the Khyber Force, wheeled draught should be utilized as far as the road is practicable, and there the base be established for the onward carriage of all ammunition on pack-animals, the wheeled carriage going backwards and forwards. In fact, utilize wheeled carriage as long as possible, and when that becomes no longer advisable, take to animals.

Mountain guns carried on animals; ammunition, camp equipage, baggage, &c., the same.

I believe myself the new jointed guns now under trial will have an important rôle in future mountain warfare. The doubtful point in this gun is its shell, power, *i.e.*, the penetration of the shrapnel bullets, which may be somewhat small. Still this is a defect which may be corrected, and I look forward with confidence to its ultimate success and increased utilization.

If it succeeds, there is no reason why similarly constructed guns of far greater calibre may not be introduced for elephant carriage. This will do away with the cumbersome heavy batteries. Guns of great shell power will be transportable with comparative ease over mountain ranges. In fact, the success of these jointed guns may effect important alterations in one branch of our artillery.

III.—Beyond the sea, wheeled carriage where practicable.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I hardly think you can improve much on the transport used at present with the various natures of artillery in this country without materially increasing the expense. There is no doubt that for general purposes, with field-guns of moderate calibre, the horse is the preferable animal.

Colonel H. Strover, Commanding Royal Artillery, Thayetmyo.

I have had no experience except with Australian horses with six in a team, two abreast, which is found the quickest and most handy. In some countries four horses abreast with double shafts might do well for 9-pounder guns, drivers, as with heavy artillery, riding the outside horses. Mules would be good in Burma, if they could stand the climate, for the mountain batteries. Bullocks, if large and well-trained, would most likely be best to be stationed in Burma with field artillery, on account of artillery horses being subject to paralysis. But I doubt if horses have had a thorough trial in Burma. Perhaps if oats, or even paddy, were substituted for Bengal gram, and the feed of grain curtailed in the rainy season, they would be more healthy: a portion of bran to be always given, unless when it appears to do harm. The veterinary surgeons expect no result from this treatment different to gram-feeding; but I know that some horses have kept well on oats, and others (Australian) on five pounds of gram, three pounds of paddy parboiled, given in three nearly equal meals with a little bran during the day. If artillery must be used in very difficult countries, where there are soft, muddy nullahs and swamps and no bridges, elephants would be best, as they could carry the guns; but elephants cannot be carried in river steamers. The 10-8th Brigade here, who have 7-pounder R. M. L. guns as their equipment, exercised with commissariat coolies as bearers; but they had no long marches.

Lieutenant Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

Camels if possible; mules carry but little, are troublesome to load, and require much more looking after on the march.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I am not sure that I understand the question aright if the mode of conveyance for baggage is referred to. I think camels much better than any other, speaking generally; but of course the carriage generally used in the district must be employed.

Brinjaree pack-bullocks are read of as having been very efficient in former days: why not now? They are abundant in many parts of India.

As regards the transport of guns in mountainous countries, it appears to me that the present system of keeping up elephants for horse artillery guns (at Peshawar, &c.) is a waste of money. The mountain batteries are thoroughly efficient; and for such work more so in my opinion than horse artillery can possibly be.

Were the services of the horse artillery for such work dispensed with, an increase in the number of mountain batteries would, however, be a necessary sequence.

If one were kept at Cherat (as a good exercising ground), a field (not the horse artillery one) battery might be taken away from Peshawar, and similar changes might doubtless be carried out elsewhere on the frontier.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I feel sure that there is room for no novelty in the transport of artillery, even were there anything left untried. Horses, bullocks, elephants, camels, mules, and ponies are all pressed into the service in various ways and under different circumstances.

The breeding of transport animals in the country has for some years elicited attention and enquiry, and Government are in the possession of the views and experiences of the best practical authorities.

As regards bullocks, there is a question now of great importance to be settled for the future of this presidency and of the service generally, *viz.*, the maintenance of the Amrut Mahal. Papers on the history of the establishment, and the discussion of the grounds of its existence, and the political and economical aspect of its continuance, are doubtless at the disposal of the Commission.

This establishment has been the source of supply of some of the most active and enduring bullocks in the country—animals on whose powers of marching have depended the execution of rapid movements, resulting in some of the most decisive actions in our conquest of the peninsula. Their services in the Burma campaigns and in the mutiny are matters of later military history.

A consideration of the history of our acquisition of this valuable establishment, and of our relinquishment of its management from 1800 to 1813, and again from 1840 to 1860, and its abandonment from 1860 to 1866, having resulted in each case in loss, and in the first and last in a resumption forced on us by the immense expense of buying inferior cattle, will doubtless have weight, before a gratuitous consideration for a resuscitated Native State leads us to abandon one of the principal material advantages gained by the gallantry and intrepidity of the British army at the "glorious" capture of Seringapatam. A curtailment of grazing privileges will doubtless provoke experiments to find other suitable grazing grounds on the highlands of the presidency; but any complete abandonment of our treaty rights at once would, it cannot be doubted, lead to increased army expenses on this head, and make any substitution of bullocks for horses impossible in this presidency for a long time, as the up-keep of the breed under Native management in a foreign State is not likely to be better than in the early years of the century.

The outturn of trained bullocks may seem hardly commensurate with the size of the establishment, which may be roughly described as 10,000 head feeding over 340 square miles of country; but when it is recollected that half of the herds are cows, heifers, and female calves, and of the other half there will be many under-sized, ill-shapen, and weakly animals unfit for Government purposes, together with a certain number of bulls and *peshrows* or herd leaders; and further, that all bullocks passed through the training depôt to the military department are 5 off, it will appear that the result in superior animals fit for draught in ordnance carriages is not so disproportionate.

It is probable that any special army demand could be complied with by the supply for general transport and as forage bullocks of many of the inferior animals now sold annually from not being of sufficient class for ordnance draught purposes.

The breed is undoubtedly of excellent quality and must be preserved anyhow; but whether such a large head of cattle could be fed on more contracted grazing grounds is the question. The ability to roam over extensive tracts of country is undoubtedly favorable to the hardness of hoof and leg power for which the breed is so famous, and it may be feared that these qualities will be imperilled by breeding under different circumstances. Time might be granted for the experiment before any rights are relinquished.

Major H. C. Lewes, Commanding  
1 Battery 1st Brigade, Royal Artillery.

I take this to mean for guns and their equipment; and understanding it thus, I have no hesitation in declaring in favor of the mule mountain batteries. They can go everywhere; horse and field artillery cannot. For rapid marches along good roads, of course, horse artillery is better adapted than field. They can both operate over very tolerably rough ground; but the mule batteries can be relied on to travel well almost anywhere. They want a better gun—one with a flatter trajectory. I

should say gatlings on mules would be very serviceable.\* Wheels over cultivated, irrigated, or very rough and rocky country cannot hold their own with the mule equipment. Of course, it would be different had we organized artillery like our own to meet in the plains, and where the marching might probably be from place to place over good roads.

Against a foe such as Russia all the horse and field artillery available would be an absolute necessity; but against Asiatics only in a minor degree, the mountain batteries being used in much larger proportion than at present.

Major W. W. Murdoch, Commanding  
E. A., Royal Horse Artillery.

It would be better that all artillery transport should be wagons drawn by horses with Native drivers for efficiency; but this would increase the expense.

For campaigns in the hills, a special ammunition train should be kept up of ponies or mules with light hill carts for royal horse artillery and field batteries, and mules with pack-saddles for mountain batteries and infantry.

Major the Hon'ble A. Stewart,  
Commanding 1-C, Royal Horse Artillery.

I believe that horse is the best transport animal for artillery in the field in India, and, with the assistance of a few elephants (to get guns and carriages over serious obstacles), I do not think it can be improved upon anywhere. (I think small pontoons should be made to be carried on the elephants, gun and carriage cradles, which could be used to float the guns and carriages over rivers which could not be bridged, and where the horses would have to swim.)

Some two-wheeled ammunition wagons and carts should be made. Artillery four-wheeled wagons are ill-adapted for really bad hilly country. This is no new suggestion, so I need not dilate upon its special advantages, which are well known.

Mountain batteries, with mule carriage, are invaluable, and with a better gun (which they are soon sure to have) they will become still more efficient.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

As at present for artillery in the field in India.

Major C. F. Nairne, Royal Horse Artillery.

Camels in India; mules in surrounding countries.

Major P. Fitzgerald Gallwey, Royal Artillery.

I presume this question alludes to the transport of ammunition, as the general transport for artillery does not differ from that of any other arm.

For Afghanistan I think a certain number (*vide* answer to last question) of the ordinary royal artillery ammunition wagons, supplemented by camels and mules, would be best; probably the same for Persia. Of course, the more open the country, the more we can use wheeled carriage, and there are a great many ammunition wagons in India available for trains; but for anything like the last campaign, camels must be our mainstay, as too many wagons would block our single roads, and mules don't carry enough. I expect that for Assam, Burma, or even China, coolie carriage (or the latter supplemented by ponies) would be largely employed.

Major W. H. Noble, Royal Artillery.

I do not think it would be advisable to lay down any hard-and-fast rules as to the nature of transport required for artillery.

Every thing would depend upon the character and resources of the country which formed the theatre of war.

Major W. E. C. Brough, Royal Artillery.

I cannot think we can improve on the horse as the means of transport for field artillery for either internal or external warfare. For the transport of heavy guns, elephants are partly used. I know nothing of the comparative cost of elephant and horse transport; but for Indian service no better animal than the elephant can perhaps be found. The climate suits him, food such as he requires is almost everywhere procurable, and elephants to replace casualties in a battery would probably be available with the force. Will elephants, however, endure the cold, hardships, and perhaps scarcity of suitable food, they are likely to be exposed to in external warfare; and would it not be difficult to keep up a reserve of these animals? I think these points have been or would be found to tell against their employment beyond our present frontier, and that perhaps, liable to contact with an enemy possessing guns equal to our own, elephants would offer too large and easily-hit a mark. It would also seem desirable that the means of transport of all artillery for employment in this class of warfare should be as far as possible alike, so as to admit of one battery at once helping another out of difficulties and necessitating but one class of animal in reserve. I would therefore urge the formation of two (or more if deemed necessary) horsed heavy batteries of four guns (or better perhaps rifled howitzers) each for such service.

No extra cost need thereby be involved; for present field batteries might be transformed into these heavy batteries, with I believe no loss, on the contrary perhaps increase, of valuable artillery power. Horses stout, if somewhat small, and hardy ponies are, I believe, to be found beyond the frontier, and by capture or perhaps purchase. There would then be a chance of obtaining means of transport for horse, field, heavy, and mountain batteries. For transport of guns, &c., of mountain batteries, I cannot fancy anything better than their present good mules.

If we prevent the rulers of Native States in India from indulging in modern fortifications, armour-plates, and heavy rifled guns, I see no necessity for the employment of siege artillery in or near India for any thing but coast defence; and its transport can be effected by rail or sea. Heavy batteries are even now armed with a siege gun (the 40-pounder), quite capable of destroying the fortifications (other than our own) now existing or likely to exist for many a long year to come in any place we know of in or near India.

Captain A. D. Anderson, Royal Horse Artillery.

Believing, as I do, that regimental transport to be efficient should be in regimental charge; that two ponies would thrive on less than the food we had privately to give one camel in Afghanistan, *viz.*, three to four seers of barley and ten seers bhoosa (the Government rate being two seers barley and six seers bhoosa daily, on which they died in hundreds), and that they will work under privations and over countries that kill camels; that the battery grass, second line of ammunition, and tent transport should be ponies (or small mules if procurable at the price)—I recommend an expansion of the pony scheme, by the addition of ponies with a man to every three, to the extent required of purely battery requirements, such as black bags, bedding, spare stores, &c., or any extra rations the troops may be required to take charge of.

Batteries having their existing establishments and organization for charge of horse and pony lines would be in a position, with but little strain, to expand the same, and efficiently supervise transport for their own wants in every point but food and forage. The enormous loss of transport animals on the Kandahar line was, I believe, mainly owing to their being no one's charge in particular, and a class of animal regarding whose treatment we knew nothing, and might have been avoided. Officers should be directed to provide for their own carriage in ponies or mules at a regulated scale under their own charge, and foraged as are chargers.

Lieutenant E. C. Wace, R.A.,  
No. 4 (Hazara) Mountain Battery.

The nature of the transport should be regulated by the nature of arm to be supplied with ammunition and its present equipment. Thus, in the case of horse and field artillery, the ammunition wagons should be horsed, and so equipped as to admit of their immediate exchange with the empty wagons on the field; and in the case of mountain batteries, the ammunition boxes should be carried on mules in exactly the same way as they are in the batteries, so that the reserve, if necessary, may be brought up to the battery, wherever it may be, on the hillside or otherwise.

8. Have you any practical suggestions to make relative to the supply of artillery or small-arm ammunition in the field, which are the result of experience during the recent field operations?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

None which are the result of experience during the recent field operations, as I did not see a round fired.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I would refer to my reply to query 6 as resulting, not in this case from personal experience, but from a study of the subject, aided by the advice and information afforded by those competent to form a good opinion.

There was much correspondence in my office during the whole of the last campaign concerning the vexed question of carriage of ammunition of the second line wagons; and I feel convinced extra assistance is required, and that the formation of ammunition columns, either by batteries or divisions of batteries, will be the best mode of meeting the difficulty. But I would deprecate there being in any one column two classes of ammunition: each class should be kept separate. Thus a mountain battery would have, say, one conductor of stores and two or three non-commissioned officers with a few gunners for its ammunition; a heavy battery the same; the field artillery would be formed into one column so long as the ammunition was the same under an officer, and so on; all being kept separate from the other, but the whole formed as above under the supervision of a superior officer, who would be responsible to the officer commanding royal artillery of the force.

Colonel C. E. O. Evans, Commanding Royal Artillery, Meerut Division.

I have not, except to reduce its aimless expenditure, with which view I would discourage the great rapidity of fire, now so much admired, and endeavour to persuade the soldier never to pull a trigger without covering an object, pointing out to him not only the waste, but the personal risk he incurs by a too rapid or careless expenditure of his ammunition.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Yes.—Carry artillery reserve on camels, and small-arm reserve on mules; put it under one, two, or three officers, according to length of train; keep it in front of all baggage, supplies, tents, &c.

On the night of 21st November, ammunition for artillery and infantry carried by camels and mules left Jumrood after dark and arrived at Shargai before day-light, though road was partially blocked. Horses had failed to get up more than one wagon on 21st.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

My reply to (5) and (6) is a reply to this question. I cannot possibly here enter upon details, which would require very much time and consideration; but the system of demand and supply should be simplified. The signature of the officer commanding a regiment or battery should be sufficient authority for the issue, and he should have to account for the expenditure. It is absurd to imagine a commanding officer would indent for ammunition which was not absolutely necessary, as he would have no means of carrying it.

Major C. F. Nairne, Royal Horse Artillery.

None, save to deprecate the idea that the first line of wagons should be separated from a battery during action, on the plea that they lengthened the column too much, as was ordered in I-C, Royal Horse Artillery, during the attack on Ali Musjid.

I also think that ammunition columns should be organized.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

I particularly remarked the inconvenience of attaching too much ammunition to regiments in the latter part of the campaign. The regiments of the 1st Division, Peshawar Field Force, had 300 rounds a rifle in regimental charge. Commanding officers have told me that they found the large number of mules added to their train very inconvenient.

Officers commanding batteries, too, would rather have been rid of their second line wagons: these never, of course, accompany batteries in a European campaign.

The result of my experience is that the regimental charge should not be increased, but only kept up to its proper amount by the ammunition columns.

Every company ought to have a common turnscrew to undo the nut which secures the lids of small-arm ammunition boxes. I have heard that this was wanting on one or two occasions when pouches had to be replenished.\*

Captain A. D. Anderson, Royal  
Artillery.

See answer to question 5.

Captain G. O. Bayley, 13-8th,  
Royal Artillery.

See answer to question 10.

Lieutenant E. C. Wace, R.A.,  
No. 4 (Hazara) Mountain Battery.

Owing to the difficulties of the country and the feed of horses, it was contemplated at one time during the recent operations to transport the reserve ammunition of all branches of the artillery on camels. If this had been done, I am of opinion that great confusion would necessarily have arisen in the distribution of the ammunition on the field, should there have been any occasion to do so, to say nothing of great delay.

The small-arm ammunition boxes should be properly fitted to hook on the Government saddle, and be secured with a strap on either side to the saddle, passing lengthways over the box, to prevent too much play of the boxes on the hooks of the saddle.

In the recent field operations, the small-arm ammunition boxes were carried on hired mules, laden with the Native saddle (*pitau*), and secured some with ropes and some in saletahs.

In this way, it was impossible for the load to ride evenly; and in going over any uneven ground, the load invariably tended to slip backwards or forwards, and it would have been very difficult, with such carriage, to supply infantry in hilly and steep ground with ammunition.

### 9. Can you name any stations at which field batteries may be advantageously substituted for horse artillery?

Brigadier-General C. G. Arbuthnot,  
Inspector-General, Royal Artillery for India.

I cannot venture to make any suggestions until it is known what disposition of troops it will be necessary to make on our new frontier.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

I see but little use in having a horse artillery battery at Meean Meer, and it could be more advantageously located at Rawal Pindi or Lucknow, the field battery at either of those stations taking its place.

I would not reduce the number of horse artillery guns in India. There are in the country 23,606 sabres, *i.e.*, 9 British and 43 Native regiments exclusive of the body-guards of the Governor General and Governors of Madras and Bombay. The Native regiments are increased in war time by 96 men per regiment, which will give an average total of 27,734 sabres, or a percentage of about three guns to 1,000 men.

From the remarks in Sir Garnet Wolseley's "Soldiers' Pocket-Book" (3rd edition, page 122) regarding the number of guns per 1,000 men, it is clear that the proportion in India of horse artillery guns to cavalry is only the minimum of that recognized with European armies, *viz.*,—from 3 to 3.75; but as it depends on the quality of the troops (and in India the greater portion of the cavalry is Native, and therefore requires a full proportion of guns) and also on the country (and in India the country is, as a rule, favorable to its use), it is very apparent that the number of horse artillery guns as viewed from the above data is barely sufficient.

Further, it must be remembered that, as already stated, the cavalry (Native) is increased for service by 96 sabres per regiment, whereas the number of guns is not increased. The percentage should, I submit, be therefore taken, as I have done, on the *war strength of cavalry*.

I would here add that one battery of horse artillery has already been reduced in this presidency.

At the present moment we have one battery with the Kandahar Force; one with the Kuram Force; one in reserve for this force at

\* At home all small-arm ammunition boxes, before issue from the ordnance department, have their lids unscrewed; but I think this would be objectionable in this country.



Rawal Pindi; one about to enter the Khyber with the advance; and one in reserve, or one-half of the number of batteries of this branch in Bengal actually in or about to take the field.

There remains therefore in the whole of India nine batteries to reinforce, if necessary, batteries already on service; to assist in guarding the immense extent of India; to take part in any complications which may at any moment arise beyond the sea, internally, or on the north-east frontier or elsewhere, and which cannot be considered one gun too many. On the contrary, I believe it to be barely sufficient, more especially as the horse artillery is an arm which it is impossible to bring to a state of efficiency at short notice.

Colonel C. B. O. Evans, Commanding Royal Artillery, Meerut Division.

I cannot. The plains of Hindustan afford scope for the display of the extreme usefulness of horse artillery; but I consider them out of place in mountainous countries. If the nature of the country is such as not to admit of the use of the 9-pounder gun of 8 cwt., let field batteries be equipped with a lighter 9-pounder of 6 cwt. for such service.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I cannot.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

There are no stations in the Madras presidency where horse artillery are quartered. The two batteries on the strength of the Madras army are both in foreign States,—one at Bangalore and one at Secunderabad. At each place they are associated with British cavalry and are a necessary part of the complete force, which for political reasons it is desirable to maintain there. Probably neither of the two batteries in the Bombay presidency can be spared for similar reasons; but perhaps some of the batteries echeloned from Lucknow north-westwards to Peshawar might be replaced by field batteries armed with light guns, and habitually carrying gunners on the axletree boxes with one or more spare riders, or with men on the off horses; in fact organized on a modification of the old horse artillery system.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

My experience in India having been confined to Sind, where there is no horse artillery, and Kirkee, where there is only one battery with two field batteries, I am unable to offer an opinion.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

Yes, Morar and Meean Meer, because horse artillery should never be stationed where there is no European cavalry.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

I consider that it is advantageous to both arms of the service for horse artillery to be associated and worked with cavalry; and therefore at stations where there are no European cavalry, I would recommend that the royal horse artillery be replaced by field batteries.

Major T. M. Hazelrigg, Royal Artillery.

Peshawar.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

As long as field batteries are only armed with the same gun as horse artillery and are so much worse horsed, I consider a field battery can never be advantageously substituted for a horse artillery battery; for it is evident, under existing circumstances, a horse artillery battery has more traction-power than a field battery, and the only disadvantage is an additional number of horses to feed and keep.

Major C. F. Nairne, Royal Horse Artillery.

I do not quite understand the nature of this question. If it is another way of asking generally whether field batteries could be substituted for horse artillery, I should say "no." First, because I believe horse artillery are already rather under than over the usual percentage of that arm to cavalry; second, horse artillery is a branch requiring long training and very superior horses, and cannot be raised in a hurry if required; third, field batteries, as at present constituted, are only inferior horse artillery, less mobile, but with same power of gun. I should like fewer field batteries, more mountain batteries and the same horse artillery to suit Indian requirements.

Major P. Fitzgerald Galloway, Royal Artillery.

Yes—

Peshawar.		Morar.
Campbellpore.		Bangalore.
Meean Meer.		Kirkee.

I cannot well explain how I propose to redistribute batteries without referring to the map which I have already alluded to; but at the stations above mentioned I have placed *field* batteries as under:—

Peshawar	...	...	... 1*
Campbellpore	...	...	... 2†

\* Peshawar I look upon as totally unsuited to horse artillery; there is no proper ground for them to drill on, and they are *not* required. I think holding the frontier as we now do, we should reduce the European garrison of Peshawar as far as is safe. We can do so by having reserves close at hand. Hence I have only one field battery at Peshawar, and have two horse at Pindi and two field at Campbellpore.

† Some extra barrack accommodation is required at Campbellpore for two field batteries, but there are *ample* materials at Lawrencepore, 8 miles off.

Meean Meer	...	...	2
Morar	...	...	2 (and one heavy battery).
Bangalore	...	...	2
Kirkee	...	...	2

The horse artillery I have placed as under at what are the principal cavalry stations:—

Rawal Pindi	...	...	2
Sialkot	...	...	2*
Umballa	...	...	1†
Meerut	...	...	3
Lucknow	...	...	2
Secunderabad	...	...	2 (and 2 field batteries).
Mhow	...	...	2

Major W. H. Noble, Royal Artillery.

Have not had sufficient experience to justify me in replying to this question.

Major W. R. C. Brough, Royal Artillery.

The batteries of horse artillery at Meean Meer and Campbellpore might be removed; but at Meean Meer no battery need be substituted, and a horsed heavy battery at Campbellpore would be available for either Khyber or Kuram. I do not mean that two batteries of horse artillery less should be stationed in India, but that these batteries might well be moved to stations at which they would be likely to be fully utilized in manœuvring with other troops instead of being isolated. Horse artillery, from its great mobility and power in measure of defending its own guns on the move, is the most valuable artillery for internal warfare in India; next to it comes field artillery, and lastly heavy, for warfare across the frontier. I would feel inclined to place them in exactly the opposite order, and to give mountain batteries the precedence of all.

Major C. Wilson, Royal Artillery.

Peshawar. The surrounding country is unsuited for very rapid movement, being much broken.

Captain G. C. Bayley, 13-8th, Royal Artillery.

See answer to question 7.

Captain A. D. Anderson, Royal Artillery.

The deputy adjutant-general, royal artillery, can give the best and fullest information on this point.

#### 10. What reductions do you consider feasible in the establishment of followers with a battery in peace or war?

Brigadier-General C. G. Arlthnot, Inspector-General, Royal Artillery for India.

Grass-cutters should be abolished in all, and grass supplied under all circumstances by the commissariat department. On service the number of syces can be reduced, as in the late operations in Afghanistan. In peace time a slight reduction might be made in the establishment of syces of a field battery, but none in that of a battery of horse artillery. It would no doubt be very desirable if syces could be dispensed with altogether; but until there is a radical change in the climate this cannot be done. A large percentage of the Europeans must yearly go to the hills; and of those left in the plains, many will be quite unequal to much physical labor. There are frequently but few left to look after the horses. The syces then must do nearly all the work. To abolish them would necessitate a large increase to the European establishments, which, as one European represents the cost of about 15 syces, would be a most expensive arrangement.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

See reply to question 15, paper A.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

Considering the nature of the climate at certain seasons of the year throughout the whole country, it does not appear to me that any reduction of these followers is feasible, unless it may be that if the commissariat supplied hay or grass, as in other armies, the grass-cutters could be dispensed with.

Colonel A. C. Johnson, Royal Horse Artillery.

I do not consider any reductions feasible in peace time. In war I should reduce them to as low a scale as possible with due regard to the health and condition of men and horses. It would be difficult to lay down numbers, as if war was being carried on during the summer months, the number of followers required would be greatly in excess of those necessary in a winter campaign. The number of syces allowed in the campaign in South Afghanistan were insufficient.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

I do not think that any reduction of followers with a battery of horse or field artillery is feasible in peace time. Any reduction would

\* Sialkot ought to be a cavalry station with two horse batteries. The regiment of infantry (British) now there is divided, some of it being in another division.

† At Umballa I place one horse and one field battery, as the number allows of it.

of course throw more work on the Europeans, who already have quite enough to do in a climate like India generally. During war the grass-cutters, who in Southern India are women, might be dispensed with, my experience in the mutinies leading me to believe they are useless and cumbersome. Dhobies also could be dispensed with, as they are an unsuitable class of men for the rough work of a campaign.

Cooks, bhisties, and sweepers are men better fitted for the life then required.

I append to this Captain Brough's, Royal Horse Artillery, experiences on this subject in the late war in Afghanistan :—

“ In the recent campaign in Afghanistan the complement of syces allowed was ten per cent. on the peace strength of horses per battery with one additional syce per horse of the number to increase to war strength, making a total of 31 syces.

“ By the work done during the campaign, it was proved, therefore, that it was possible to do without the peace complement of these followers ; but I noted at the time that it appeared to me very questionable if it would not have been better to have taken no syces whatever, and, in their stead, to have taken an equal number of drivers (Europeans). The latter would have been a great augmentation to the *effective* strength of the battery.

“ Syces can, doubtless, be trusted with night duty in the stables in peace time ; but I do not think they can be depended on for such duty on service ;\* and even picked men succumbed to the effects of cold and exposure, and became all but useless.

“ I also noted the following calculation at the time : “ the rations, too, carried for natives are all but as heavy as for Europeans ” :—

<i>Europeans.</i>	<i>Natives.</i>
1½ lbs. of bread.	1 seer of atta, wheat or
1 lb. of vegetables.	rice ... = 2 lbs.
½ lb. of tea, sugar, salt, &c.	Ghee, salt, dhall, &c., about ½ lb.
Total 2½ lbs.	Total 2½ lbs.

Wood, bought. Meat, driven.

“ It appeared to me, too, very doubtful if the Native artificers were of much use in the campaign, as they did not appear to have the stamina to withstand the hardships, and do their work, and as they took time to cook their food.

“ I would prefer having the number of European artificers increased and the Native artificers abolished for such a campaign.

“ My battery was quartered in Sind before the campaign. There batteries are supplied with fodder by the commissariat department, and have no grass-cutters. On being ordered on service, we were supplied with grass-cutters, though, from the accounts of the country to be passed through, it appeared certain grass would not be found along the route.

“ As it turned out, the grass-cutters did next to no work as such, and they were most of them sent back from Kandahar ; and another large batch of them was sent back after our advance on Girishk.

“ I cannot see how, if a large army is on the move, it can be supplied with fodder by grass-cutters. From the very nature of this and neighbouring countries, it seems impossible to feed a large number of animals with the grass just found along the route.

“ Even in peace time, there are many routes where grass is difficult to procure. Any one who has marched along the grand trunk road, from Lahore to Peshawar, knows of the difficulty of getting grass along it by simply cutting what can be found.

“ I think, therefore, that grass-cutters might be disestablished altogether, and that the commissariat should supply fodder, both in peace and war.

“ What I have said about syces and Native artificers applies to a campaign in a cold climate. Whether they could be dispensed with in a campaign in the plains of India during the hot season, I cannot say, but should judge that they could not.

“ BANGALORE ;  
2nd September 1879.

} J. BROUGH, Capt., R. H. A.”

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

I think that in some stations some of the syces could be dispensed with. I refer to stations where the horse lines are near the harness-rooms and barracks. (In Peshawar, for instance, it is a regular “ fatigue ” to carry the harness and saddlery between the horse lines and the harness-rooms.)

\* Under supervision, of course, in both cases.

Where the harness-rooms are close to the horse lines, I think 18 syces might be taken from the peace-establishment of a battery of horse artillery.

No other reduction is feasible.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I doubt any sensible reductions being feasible with due regard to the health of the British soldier in peace except at hill stations, or in war except in temperate climates.

The British soldier might be made to do a great deal more for himself in the colder season of the year, which varies from *nil* at Trichinopoly to some four months duration in the Punjab; but the Native establishments cannot be dispersed and brought together spasmodically to suit the climate with the pulling of punkhas.

As regards syces, possibly the establishment might be reduced in peace and war, if the orders as to the non-employment of them by the soldiers in the capacity of cleaners of appointments and harness, and as to the exclusion of them from getting horses ready for parade and ever coming near a parade, were more rigorously carried out, and they were confined to the duties of helping to clean off and spare horses (especially their legs, so as to keep the men from stooping heads down), bringing washing water, cleaning stalls, and taking horses to water in the middle of the day. As to watering before evening stables, it has to be done at home, and the men, therefore, may well have to do it here, turning out as soon as the sun is getting low; and then the evening stable hour must count from the return of the horses from water.

There is, I think, a limit to the non-employment of British soldiers whenever the sun shines. If he is never to go out in the sun, he will be a long time getting acclimatized for field service. The fear of the sun leads, as a general rule, I believe throughout India, to unnecessarily and irksomely early parades, and the breaking of the night's rest to officers and men. The desire to escape the morning sun is doubtless due to the weariness induced by empty stomachs; but, I believe, if early coffee with something to eat were insisted on before going out, there would not be the same anxiety for getting back to barracks.

As to grass-cutters, there is the difficult question of right to cut grass in the fields against the will of the ryots. It is only by time-honored custom that the practice is carried on, and therefore the less said about it the better, as it is undesirable to raise the question of right and run the risk of adverse decisions in civil courts. It will of course depend on the circumstances of different stations, whether the grass-cutters forage on private property, or whether there is plenty of Government waste for their operations. Anyhow, unless a good extent of grass land is assigned to each mounted corps, and the cultivation is scientifically and assiduously pursued by the commissariat department or the corps, a large following of grass-cutters is a necessity.

Cooks, like syces, are a necessary evil. Soldiers could not safely be left to cook for themselves in barracks, even were the cook-houses improved, unless perhaps at hill stations; and they certainly could not cook in camp, unless in (what is exceptional) a cool cloudy climate. This class, however, are not all public followers, and their presence within the limits of the country is not usually inconvenient, but they are a troublesome adjunct on field service.

I do not think the Native artificers of mounted corps can be reduced. In the farrier's shop there are often too few, as British soldiers cannot stand much forage work, or the exertion of shoeing many horses. The work may induce thirst, which adds to the evil; but I believe it will be found that, as a class, farriers and shoeing-smiths are more in hospitals than their comrades, and therefore any over-working of them is bad economy for the State.

Major H. C. Lewis, Commanding I Battery 1st Brigade, Royal Artillery.

In war, at times the grass-cutters might be done away with. In the Afghanistan expedition they were of very little use. The forage was chiefly stored or bought from the inhabitants, and mostly it would have been useless, if not dangerous, for our men to have gone from camp for the purposes of grass-cutting.

In war, half the number of lascars would be sufficient.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

In a horse battery I consider none are feasible, the establishment being already as low as is compatible with efficiency.

Major W. W. Mustoeb, Commanding E-A, Royal Horse Artillery.

I do not know of any reductions that could be made in the establishment of followers of a horse artillery battery. It is quite true that when there are the proper number of Europeans at work in the shops, some of the Native artificers might be dispensed with; but they are all required during the hot weather and in cases of emergency.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

None!

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

I can claim no knowledge of this matter as regards anything except the Native establishment of a battery of horse artillery.

I do not consider any reduction possible in the Natives of a horse artillery battery, except under an entire change of organization; and I am not off-hand prepared to say that the change I propose in Nos. 2 and 3 would actually cause any real reduction amongst the Natives.

As long as the Natives are allowed to be like servants to the European soldier, the latter will do little more than what he is obliged to do.

I should either separate the two entirely, and make the European soldiers work quite alone and the Natives quite alone under non-commissioned officers, or else positively make the Natives the servant of the soldier—something like the irregular cavalry. I think this would reduce the number of Natives in a battery; but it has obvious disadvantages also.

Major C. F. Nairne, Royal Horse  
Artillery.

The day for grass-cutters has gone by; the race is dying out. Men cannot be got to serve for the pay; and owing to increasing cultivation, and that zemindars have found out that their grass is saleable, grass-cutters can no longer provide either proper quantity or quality of grass. This is a question which requires greater length to write about, so I will leave it. Abolish grass-cutters, or reduce them to the very small number requisite to bring in a small amount of green food for the battery, and feed with hay. Grass-cutters are almost useless on service and on the line of march.

Abolish tent lascars; at present allowed one to each tent on line of march. Their duty can be, and is, performed by the men.

I do not think any other reduction advisable, because in the artillery the men already have enough work to keep them in health; and any increase to it has been proved to cause an increase to the sick list; therefore, as a matter of true economy, the followers who save labor to the English troops should be kept up. Throw more work on the Englishman, and it must frequently happen that he will not come fresh into action. Preserve his vigor as much as possible. The climate is already too much against it.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

*Horse and field.*—I would reduce syces 50 per cent.; they are to a certain extent an anachronism belonging to a time when the British soldier did nothing for himself.

I would reduce the grass-cutters as under:—

<i>Horse artillery.</i>		<i>Field battery.</i>
From 178 to 60 single, or 30 jorawallahs,		From 110 to 40 single, or 20 jorawallahs,

in peace time. The commissariat should obtain grass by contract and stack it. The reduced establishment of grass-cutters to be employed to supplement the contractors and for another purpose, *viz.*, that it is not quite clear that in all campaigns the commissariat could purchase or get grass daily. Hence it would be well to have a partial supply of cutters in each battery: the full number could be filled up by transfers if necessary for service.

But for peace time I am convinced the present system must soon cease. Land is becoming more valuable daily, and the zemindars more litigious. It is even now very difficult in places to obtain grass in this way without trouble; in fact, most of it is *stolen*.

*Heavy batteries.*—I have already stated the reductions that could be made if 4 gun batteries were adopted.

*Mountain batteries.*—The same for mountain: in addition, I think it a most urgent necessity that cooks and all Native servants in barracks should be strictly prohibited in mountain batteries. I consider it a most humiliating spectacle to see British soldiers in the hills, in a finer climate than that of their own country, unable to cook their own food, or clean their own boots. There is no earthly reason why they should *not* do so, and the present system is extremely pernicious. I observed in the last campaign the utter incapability of the British soldier to do anything for himself that a Native could do for him.

In all batteries I would propose a reduction of lascars by 50 per cent. They are good men, but do work which ought to be done by the gunners. I would find employment for them in the ammunition columns and siege trains in arsenals, if it be thought hard to discharge them.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. R. C. Brough, Royal  
Artillery.

In horse and field artillery I have already suggested the reduction during peace of 20 horses each in the mass of the batteries in India. This would allow of the syces being cut down in number by ten and grass-cutters by twenty. Single camp equipage I would only have in possession of batteries at some distance from, and *not in direct communication by rail with*, the depôts, thus allowing tent lascars in almost all

batteries to be dispensed with. Store lascars I would reduce to a tinal and six, but I would strictly forbid the employment of these men or any battery follower on duties out of their own battery. Such numbers of the lascars are now constantly employed as orderlies out of the battery, that not one is left with it. Eight bullock drivers for the 17 bullocks still necessary for draught would suffice instead of the present *sirdar* and 23 (these 17 bullocks should always be left with their battery, where their efficiency and condition would be looked to, but their services might, as now, be made full use of in cantonments). In the Native artificers I think no reduction possible; and bhisties and puckalis could only temporarily be reduced in number at stations where water is actually laid on in barracks and wash-houses.

For inland service I cannot believe any reductions, save of the bullock drivers not required, possible. Well capable in a good climate of hard work, in the Punjab, during the winter months for instance, Europeans, if subjected to constant exposure by day in the hot weather, must break down, if not die; and reduction of followers, which would necessitate such exposure, must be avoided. For external warfare, it seems impossible to lay down one rule for all circumstances, and that the climate of the countries in which the troops would be called on to act must in each case be taken into consideration. Experience in Afghanistan and its climate during the summer should enable officers of the Kandahar Force to suggest the possibility of, and amount of, reduction calculated to ensure efficiency during war beyond our north-west frontier. I would suggest that in future followers not accompanying their batteries should be allowed a small retaining-fee—say two rupees a month—on condition of their awaiting at some specified station the return of their batteries. Wars now seldom in any part of the world run a long course; and I daresay two rupees a month would have kept many of the so-badly-wanted syces awaiting the return of their batteries this summer.

Major C. Wilson, Royal Artillery.

The lascars attached to a battery of any description might be dispensed with. A Native farrier should be added to the heavy batteries, and a percentage of drivers (Native) to allow for casualties by sickness or otherwise.

Captain W. Law, Commanding C-2nd Royal Artillery.

I do not consider any reduction in time of peace possible. I have no war experience but from that gained in the Malta expedition. I would suggest leaving behind a large proportion of syces, who might be attached to the horse depôts suggested in question 21. Of course this presupposes an addition to the establishment of drivers. This reply refers only to horse and field artillery.

Captain G. C. Bayley, 13-8th, Royal Artillery.

See answer to question 7.

Captain A. D. Anderson, Royal Artillery.

See answer to question 1.

## 11. Do you consider the present mode of entertaining followers can be improved; and how?

Brigadier-General C.G. Arbuthnot, Inspector-General, Royal Artillery for India.

Give higher rates of pay to and attest a certain percentage, and have the remainder on probation on lower rates.

Colonel A. H. Murray, Deputy Adjutant General, Royal Artillery in India.

Yes, I would entertain a better class and give a slight increase to their pay. The pittance these men now get barely supports existence, if it were not for help which they often get from the soldiers.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I think the present mode is satisfactory both to them and the corps entertaining them.

Colonel H. Strover, Commanding Royal Artillery, Thayetmyo.

I consider they should always have huts provided for them and sanitary arrangements made, also sepoy tents in the field, &c., and cloth jackets given them, as some have at present. Each sub-division of a battery should have its share of them attached to it.

Colonel A. C. Johnson, Royal Horse Artillery.

I cannot suggest any improvement in the method of entertaining followers.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

The present mode of entertaining followers in this presidency could certainly be improved; for, although it acts well enough in peace, there is not sufficient hold on them when ordered on service, as they take the first opportunity to run away on finding themselves in a position or in a part of the country they dislike. I cannot confidently suggest how the present mode might be improved, but think that pensions should form a principal part of any new system.

Lieutenant-Colonel J. Ketcham, Royal Artillery.

I do not know how.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I do not think that the present mode of entertaining followers, perfected as it is by long experience, can be improved on. The regulations on all points are, I believe, sufficient. To increase the pay is not desirable or necessary, but, on the other hand, it cannot be reduced; and followers must, like all others, be attached to their allegiance to duty by the prospective advantages of pension.

If attention is given by commanding officers to keep up the descriptive registers and records of service; if a consideration for followers is impressed on all ranks, and if Government make some allowance in kind as to clothing and shelter in cold seasons and climates, as a matter of course and without waiting for casualties, I think nothing further is required.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

I think the present mode answers sufficiently well. At some times and places syces are not to be had, and at others you have a fair choice. Many bring up their relations for employment.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

I can suggest no other mode as an improvement.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

I consider this one of the most difficult questions to deal with. It is not the mode of their entertainment that I consider faulty, so much as the rules under which they serve and the treatment they receive. All followers at Meean Meer and north and west of it should receive better pay and warm clothing, also be allowed tents when in camp. When a battery marches, carriage for the wives and families of the Native followers should be allowed by Government.

Special rules should be framed for the payment of a portion of the pay to the wives and families when they are left behind.

The Native followers in the northern stations should as far as possible be young men and bachelors, and should, if possible, be got by volunteering: this they would do if the inducements were good enough.

At present it is impossible to get followers to go to the frontier. The sufferings of the Native followers during the late campaign must have been terrible. The wives and families were left behind in the greatest destitution. The followers that were sent back from batteries as they crossed the frontier were either discharged or sent to join other batteries, which in many cases afterwards went on service. When these followers were sent somewhere else with their wives and families, no allowance was made them for extra expenses; and as these were men who did not cross the frontier, they will not get any batta.

Some of the followers from the Kandahar Column returned, having lost their toes from frost bite (two came to my battery). This has produced a very bad effect, and it will take a long period of good and liberal treatment before the intense dread of going to the frontier will be overcome.

The pension rules are very hard. A Native has to serve forty years before being entitled to any pension, unless invalided.

A liberal pension to all followers actually injured in the service, such as the two men I mentioned before, would, I believe, have a very good effect. These men, though incapacitated from following their callings, viz., that of syce and grass-cutter, will only get Rs. 1-3-6 and Rs. 1-1-1 per month respectively.

There will probably never be much difficulty in getting syces down-country.

The pay of the grass-cutters should be increased to Rs. 5 for single, and Rs. 10 for double, grass-cutters.

A double grass-cutter has to give his pony one seer of gram a day: with gram at 15 seers for the rupee, which has been a common price during the past years, it comes to Rs. 2 for a 30-day month.

A pony fund should be formed and kept up by monthly subscriptions from the grass-cutters, and the ponies should be bought and paid for out of this fund.

The Native followers receive the same pay as they did years ago, when grain was often 30 seers for the rupee and generally over 20, whereas now it is 12 seers for the rupee.

No!

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

I think if all followers could be entertained in the district in which the regiment or battery with which they were expected to serve was stationed, and were handed over in exchange to the relieving regiment or battery, they could probably be got to serve without the prospect of a pension, as their children would most likely be employed after them. When they became old and worn out, they would be more easily registered and recognized. If they had (as it were) permanent homes, the women and children would not be the encumbrance they now are. Of course, the men

themselves would have to move with the regiment or battery on relief, exchanging upon the march if they met the relieving corps, or being sent back on arrival at the new station.

Major C. F. Nairus, Royal Horse Artillery.

No improvement occurs to me.

Major P. Fitzgerald Gallwey, Royal Artillery.

By reducing all Native establishments, as I have above suggested few would be left. These might be regularly enlisted like the lascars, and given pensions.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. R. C. Brough, Royal Artillery.

A more formal method of entertainment and one entitling them to the benefit of fixed rules, not alone regarding pay but pension and clothing, would, I think, improve the case of followers, and secure a man more useful in emergencies. Pension, to which they would be entitled without invaliding after a certain number of years' service (above a certain age); commuted pension, or some fair reward for their services, on reduction of establishment or discharge from injury received in the service; some slight annual allowance for clothing to syces and grass-cutters, would probably effect much and at little cost. A form of entertainment, signed and asserted to be true before a magistrate, would, if it give name, family, home, next-of-kin, &c., not alone allow deserters to be traced but properly punished—perhaps avoid the lies now told by a bad lot on entertainment, or deter others from going.

Captain W. Law, Commanding C-2nd, Royal Artillery.

Not without raising their status, which would increase expenditure.

Captain A. D. Anderson, Royal Artillery.

I think that, for the sake of discipline, all followers should be put through the form of enlistment, to which they don't object, and that in return an allowance for a suit of clothing of regulation pattern be made them annually, or some hope be held out to them of pension at the completion of a fixed number of years of good service. No one gets servants as cheap as does the Government; and clothing (a coat or *puggree*) and pension (be it ever so little) would go far to improve their status. That the follower, such as is found now in India, will ever reward the trouble of organizing his class, I doubt; and if the cry that the soldier, European and Native, on Indian service requires Native followers to dry-nurse him must be listened to (though these luxuries are not allowed him in Abyssinia, the Cape, or hot countries of Europe, should he have to serve there), I submit our safest plan as regards them will be to have as few of them as we can,—a minimum in peace time, and a reduction on that for service. I feel perfectly convinced that the English plan could be adopted in this country; that shoe-makers, tailors, storemen, weighmen (if required), workmen of every class, except bhistics and sweepers, could be superseded by enlisted men receiving working pay for their labor, and that where caste in Native corps interfered men could be enlisted for the posts; that officers' servants should in like manner be soldiers from the ranks; and that the system, if carried out in its entirety, would greatly increase the efficiency of the army and the safety of our columns when marching in an enemy's country. Few officers would, I believe, not agree with me when I say that a batman, be he European or Native, is, as a rule, worth any number of ordinary Native servants; and I am sure a very large proportion would gladly make the change for service and hard work.

I took with me on service five men; it took me all my time to get two of them back alive to India, far less get any work out of them; while numbers of officers could show a fairly heavy death-roll among servants alone. In General Stewart's head-quarter camp there were, roughly speaking, 30 officers with an average of at least 5 Native servants a piece, total from 150 to 200 men. Whenever we moved, a company was detailed from the fighting strength of the nearest regiment for escort and guard. The same went on in the different divisions and corps, until regiments marched off parade, European 250 and Native infantry about 150 strong. On the English system the 30 officers in General Stewart's camp would have furnished at least one batman and two grooms apiece, or from 90 to 120 men, soldiers, European or Native, as the case might be, but ample for all requirements of escort and baggage duties; and the same plan carried out throughout the camp would—

*first*, have swept away any number of useless followers; and *second*, allowed regiments to have as nearly as possible their fighting strength available.

For a hot weather campaign in the plains of course special allowance would be required; but for ordinary campaigns, such as



the last and the present expedition to Cabul, I submit the gain in efficiency would be decided, while with the officers themselves the scheme would be popular. For regimental and battery officers numbers of good servants would be forthcoming, while the staff would be, as they are in England, at the mercy of the nearest regiment, who, from their full war strength, could easily spare the few men required. The balance of Native followers then remaining, after reduction to the very lowest point, should, I believe, be armed with a light breech-loading carbine, instead of their present sword, of which they do not know the use.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

I think it would be an excellent thing if all followers, private as well as public, could be enlisted, and supplied with suitable uniform clothing, which would show distinctly—

- (a) that the man belonged to the service,
- (b) what his functions were.

I think it might be well, if this idea were entertained, to have a very elastic system of enlistment, so that those followers who were only required for a war might be enlisted for that war and three or six months after (to allow time for their discharge and passage to their place of enlistment), or for so long as their services might be required. This would settle all questions as to their legal status, rights, claims, &c.; and by providing pensions for the families of those who died during a war, it would, I should think, facilitate their enlistment. There can be no doubt as to its being a help as regards discipline and administration.

Lieutenant E. C. Wace, R.A.,  
No. 4 (Hazara) Mountain Battery.

I think that there might be some system of registering in the district civil offices; the capabilities of each village and *tehsil*, with reference to the number and description of camp-followers who can be supplied when required by the State, in the same way as the capabilities of each village, should be registered with reference to transport.

## 12. Can they be so organized in peace as to make them less dependent and defenceless in war?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

I do not think any thing can be done until, by giving higher pay, men of a better stamp are obtained. Arms in the hands of a grass-cutter or doolie-bearer of the prevailing stamp merely afford an additional inducement to attack him for the sake of obtaining his arms.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

Yes, by getting, as above suggested, a better class and giving them means of defence. The present race have no heart to fight; and if they had, with their weak fragile frames they are physically unable to wield a weapon, even in self-defence.

The arms given to the Native followers were too large for them to use; and I think the description given to me of their being more a terror to themselves than to the enemy is possibly not far wrong.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

Certainly. They should all have some drill and be armed for self-defence. Whatever the weapon may be, they must be taught the use of it to a certain extent.

Colonel H. Storer, Commanding Royal Artillery, Thayetmyo.

All artillery in the field is dependent and practically defenceless as far as small arms are concerned; but there appears no objection that I know of why the followers should not be enlisted and armed with the artillery snider carbines as these become available on the issue of the Martini-Henry carbines to the royal artillery, except that the followers might think themselves above their proper work. The bhisties, cooks, grass-cutters, sweepers, should not, I consider, be armed, except where the grass-cutters have ponies, when a portion of them might be.

Colonel A. C. Johnson, Royal Horse Artillery.

I do not think any amount of organization short of drilling and treating them exactly like Native soldiers, which is impracticable, would render the stamp of followers entertained less dependent and defenceless in war.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

As a rule, Native followers are not a fighting class, and must always be dependent in war. I cannot therefore see what good would accrue from a training antagonistic to their feelings and instincts.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I doubt this being possible; certainly not without increasing expense. They have no time for training sufficiently with firearms to make them more than a dangerous rabble.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I do not see how followers on small pay can receive much organization without at once increasing their expense. Those who are enlisted

and attested (especially gun or store lascars, and syce drivers) might have a certain amount of drill; and of this class each man, or some of every party, might have *tulcars* put into their possession on service, when likely to be detached on duties which would take them away from the protection of their corps.

Major H. C. Lewis, Commanding  
I Battery 1st Brigade, Royal  
Artillery.

Give them a sword or spear. I do not see that you can do more. You cannot make drilled soldiers of them; they are not the right stuff, and it would interfere with their proper work. If they do not straggle on the march, or at any rate if they band together and have sharp swords and spears, they won't suffer very much I think.

Major J. Haughton, 1-8th Brigade,  
Royal Artillery.

I think it would be a good plan to give them a little drill and a very simple uniform. This would encourage a soldier-like spirit among them, and would make them better workmen. I used to make syces in a field battery (E-16th in the year 1869, &c.) provide themselves with white shirts, while I provided red *cummerbunds* and *puggrees*. I am sure they worked better and were "better men" for it.

Major E. T. Hume, Commanding  
C Battery C. Brigade, Royal  
Horse Artillery.

Yes; they could certainly be taught the use of a short sword.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse Artil-  
lery.

I think a certain amount might be done in the way of making the syces march along the road in the body and keep near the battery when moving in a hostile country. A short sword might be given them, which they could be taught to use. I would be entirely against entrusting them with firearms.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

No! If armed, they would probably be more or less confident in themselves, and straggle even more than they do now.

Major the Hon'ble A. Stewart,  
Commanding L-C, Royal Horse  
Artillery.

No, I fear not. Their very defenceless condition, I think, is one source of our strength. The more self-reliant they become, from their very numbers they must be more dangerous.

Major C. F. Naisne, Royal Horse  
Artillery.

The store lascars should be armed with swords. A few syces also, who take to wrestling and single stick as a pastime, might possibly defend themselves if attacked; but with these exceptions, the followers are an improvident set of fatalists, and in the ordinary avocations of life exhibit neither care nor foresight, and I do not think it can be taught them with a view to their self-preservation on service.

Their only idea is to run away, and they do not do that with vigor.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

I think in this case they could all be better organized, and might each have a short *light* sword, not the unwieldy things given them in the late war.

Major W. H. Noble, Royal Artil-  
lery.

See answer to question 9.

Major W. R. C. Brough, Royal  
Artillery.

I think this impossible, without a great increase of pay and prospects and regular enlistment. When in the hands of a far better class of men, a weapon might be of use; now it but offers temptation to a ruffian to take it, and probably murder with it the owner.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

I see no other means but arming a portion, which would necessitate drill, and make them above their work. I think that in war most of the followers of a battery could be dispensed with, except perhaps grass-cutters, who seem by the accounts to suffer most. But if they were always accompanied by mounted orderlies who took care where they went, they ought not to stay beyond picquets. Bhisties would be always necessary; and I think cooks.

Captain A. D. Anderson, Royal  
Artillery.

See answer to question 11.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

I cannot say; but I think if they were all enlisted as already proposed, it might have some effect. Officers' servants at home are all enlisted men, soldiers: why not in India? But whether those Natives who take domestic service in India could ever be induced to fight I cannot say. If they could not, I would still enlist them, and supply them with suitable uniform clothing, &c., for the reasons already given; but I would *not* arm them. To give weapons to a man who has no idea of using them appears to me a great mistake; for—

- (a) it throws an unnecessary burden on the ordnance department, and an unnecessary expense on the State;
- (b) it frightens the man himself, and makes him more unwilling to serve, and more likely to desert. If the danger were not something terrible, why should a peaceful man like him be troubled with weapons?
- (c) it makes the enemy all the more likely to kill him. Persons carrying arms are presumably fighting men and ought to be killed. The weapons will then probably be lost, having previously been worse than useless.

Lieutenant E. C. Wace, R.A.,  
No. 4 (Hazara) Mountain Battery.

At the annual cold-weather camps of exercise in each division in India the camp-followers, whose names are registered in the district offices, might be called out, under exactly the same circumstances as in time of war, be given free rations and about Rs. 4 a month, and be told off to their several duties, just as would happen in the field. In this way they would learn their work, be accustomed to the surroundings of camp-life and all its restrictions, and those for whom they work would, in their turn, learn more of their peculiar ways and habits. A mutual confidence would thereby arise, and they would learn where to look for safety and to whom to apply for orders, &c.

13. Taking the list of followers attached to a battery in succession, state how the duties performed by them are carried on at home.

	List of followers.	How their duties are performed at home.
Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.	Lascars ...	By limber gunners.
	Syces ...	„ gunners and drivers.
	Grass-cutters ...	„ contractors.
	Bhisties ...	„ gunners and drivers.
	Sweepers ...	„ gunners and drivers.
	Moochies ...	„ collar-makers.
	Mistry carpenters ...	„ wheelers.
	Filemen, firemen, hammermen, and mistry smiths ...	„ farriers and shoeing-smiths.
	Lascars, store ...	„ gunners.
	Lascars, tent ...	„ ditto.
Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.	Puckalies ...	„ gunners and drivers.
	Bhesties ...	
	Sweepers ...	

In England water is always laid on; a soldier has only to go to the tap. There are also sewers, conservancy arrangements, and scavengers, which do not exist in India.

Syces ...	Gunners and drivers.
Grass-cutters ...	Contractors.
Bullock drivers ...	Nil.
Mistry smith ...	Farriers and shoeing-smiths.
Fireman ...	
Fileman ...	
Hammerman ...	
Mistry-carpenters ...	Wheelers.
Carpenters ...	
Moochies ...	Collar-makers.

All duties at home are of course performed by Europeans, but under very different circumstances and conditions. The two countries are so essentially different in every particular, that comparison in the foregoing particulars seems quite inapplicable.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

1st, *lascars*.—Their duties are at home performed by the men, but, owing to the climate in this country, their assistance is necessary for the due preservation and care of the expensive and valuable stores of a battery.

2ndly, *syces*.—Ditto.

3rdly, *grass-cutters*.—By the Commissariat at home.

4thly, *bullock-drivers*.—By extra European drivers.

5thly, *bhisties and puckalis*.—By a system of pumps, handy to the men.

6thly, *sweepers*.—By fatigue-parties and room orderlies.

7thly, *Native artificers*.—By extra European artificers.

I would call attention on this point to the large extra number of Europeans and horses to a battery on war establishment at home over that in this country. If the climate even admitted of Europeans performing all and every duty here, I do not think any saving would be effected by the substitution of Europeans for these Natives.

In my opinion, the Government of India now possess really efficient batteries; and I would avoid tampering with their establishments at the risk of lessening that efficiency.

Colonel H. Stover, Commanding Royal Artillery, Thayetmyo.

I have had no experience with a battery of field artillery out of India, except for a short time in New Zealand; but I know that the drivers, artificers, and gunners have no assistants—everything is done by them. But the climate, the proximity of the water, the difference in the sanitary arrangements, enable this to be done in England; and

harness lasts longer there. Artificers are sometimes sent about to do special work or alterations to gun-carriages in England. Probably skilled labor is always to be obtained there when required.

Colonel A. C. Johnson, Royal Horse Artillery.

*Syces.*—At home the soldier grooms and attends entirely to the wants of his own horse.

*Grass-cutters.*—Hay is issued as part of the daily ration of forage.

*Cooks.*—The men at home cook for themselves.

*Dhobies.*—The washing is done at home by soldiers' wives.

*Bhisties.*—Water is laid on in barracks, and, when necessary, is carried by the soldiers themselves.

*Mchters.*—Cleaning of barrack-rooms, squares, &c., is carried on by fatigue-parties.

*Native Mistrics.*—These men are assistants to the European artificers. The working-hours in India are so limited (as far as Europeans are concerned), that the work of a battery could not be carried on without them.

*Gun lascars.*—The duties of these men are at home performed by gunners.

With the exception of washing of clothes, by the men of the battery.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

*Syces.*—Altogether by the gunners and drivers themselves (the climate making this feasible).

*Grass-cutters.*—Corn and hay supplied by the commissariat daily, exactly in the same way as the men's rations.

I cannot see why this should not be done in India. I think it would be much better than the present system.

*Cooks.*—By the men themselves (the climate making this feasible).

*Dhobies.*—By the men's wives (the climate making this feasible).

*Bhisties and puckalis.*—By the men themselves, pipes, pumps, &c., being close at hand or in barracks and stables.

*Sweepers.*—By the men themselves in part, and by contract.

*Lascars.*—By the men themselves; but the out-of-door work done by the lascars in this country could not be done by Europeans on account of the heat during the day-time, the men having the whole day to work in out-of-doors. At home they have sufficient time to do all; but they could not stand working out-of-doors in this country during the day.

*Bildars.*—As for lascars.

*Native artificers.*—By the European artificers themselves.

But in the same way that an officer requires a number of servants in this country to replace his soldier servant and groom, the battery requires its extra Native establishment, and cannot do without it.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

As British soldiers do every thing for themselves at home, except washing, there is, I think, no comparison to institute. There are artificers, with appropriate rank and pay for the repair of the different descriptions of equipment and for shoeing horses, &c. A tailor's shop is an obligatory, and a shoemaker's shop a usual regimental institution; and, under the superintendence of non-commissioned officers, soldiers do all cleaning and carrying work for themselves.

Washing, with repair of under-clothing, except on field service, is put out, and usually done by soldiers' wives, who are not often above working at home. On field service, as on boardship, each man must wash for himself.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

The duties of the lascars, which mainly consist in those of messengers, letter-carriers, care-takers, office orderlies, are at home performed by non-commissioned officers and gunners; those of the artificers, by the European soldier artificers; those of the syces, by the gunners and drivers and rank and file non-commissioned officers; those of the cooks, by the gunners.

The duties of the sweepers, as far as latrines are concerned, are matters for the attention of the Barrack Department. Sweeping, cleaning up, &c., &c., are done by fatigue-parties of soldiers and room orderlies, &c.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

The duties of store and tent lascars, syces, cooks, and sweepers are carried on by the men of the battery.

The duties of dhobies by the wives of men of the battery.

The duties of grass-cutters are performed by the commissariat.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

The following is a list of followers attached to a battery of royal horse artillery, with the duties performed by them, and the manner in which these duties are performed at home:—

*Mistry-smith.*—Does all the iron-work required for the repairs or alterations of carriages and all iron-work with the exception of the shoeing.

The work performed by this mistry at home would be done by the farrier or a skilled workman sent on purpose from the arsenal, Woolwich.

*Filemen.*—These men make horse-shoe nails, and finish off the shoes before they are finally nailed on. On emergency they can make shoes, though not fit or nail them on. In England nails are generally bought, and the other work is done among the farrier and shoeing-smiths and acting shoeing-smiths.

*Fireman.*—Attends the fire and blows the bellows. This work at home is done by the Europeans.

*Hammerman.*—This man is the regular striker. At home this is done by the shoeing-smiths.

*Mistry-carpenter and carpenter.*—These men do wheeler's work and wood-work of every kind.

The work would be performed by the wheeler at home.

*Moochees.*—Moochees do all kinds of leather work, but the greatest part of their time is taken up in continually repairing the line-gear.

There being no line-gear ordinarily in use at home, the greater part of the work done by these men does not occur.

I would wish to add that although the number of Native artificers seems large, yet it must be remembered that service in India is so entirely different as not to allow of a fair comparison.

*Farrier's shop.*—The ordinary establishment of horses in a battery, royal horse artillery, at home is about 100, whereas in India it is 178.

At home there are three shoeing-smiths per battery. In India there are only two.

During half the year in this part of India the Europeans can only work in the morning and evening.

The farrier's time is almost entirely taken up with superintending the sick horses in the infirmary. There are a far larger proportion of sick horses than in England, and the infirmary is often a considerable distance from the stables.

In India it often happens that a battery is very short-handed through shoeing-smiths and acting shoeing-smiths being sent to the hills. I have known a battery have to go through a whole summer with only two Europeans in the shop, even reduced to one European for some little time. Again, if sent into camp during the hot season, unless good shade can be obtained, a battery is almost entirely dependent on the Native artificers. Had the Europeans more work to do than they have, I believe it would tell upon their health.

*Wheeler's shop.*—The establishment of carriages at home is now 9 and in India 21; but without taking this into consideration, the Native artificer's principal work is the continual renewing things that are used in the lines.

*Collar-maker's shop.*—Two moochiees assist the collar-maker, but principally for preparing and making up line-gear.

To this latter work there is no equivalent at home. Were the Native artificers reduced, the Europeans would have to be increased.

*Tindal.*—Is the senior lascar. He has charge of the 12 lascars, and also assists the quartermaster sergeant in superintending the Natives about barracks.

*Store lascars.*—These are enlisted Natives; they assist the limber gunners in the washing and cleaning and charge of the guns and carriages, orderlies, and guards; they take many duties that cannot be performed in India by Europeans, especially during the hot weather.

Some of the duties performed by these are done by Europeans at home, but the greater part of their duties do not exist at home.

*Puckalis (water-carriers).*—Their duties are to bring water to the barracks for cooking, drinking, and washing, often from a distance. At home water is laid on all over the barracks, and their duties do not exist.

*Bhisties.*—Same as above.

*Sweepers.*—These men sweep out and keep the whole of the barracks, wash-houses, cook-houses, and out-buildings clean.

Their duties at home are performed by men told off for these duties.

*Syces.*—Assist in the care, grooming, watering, and feeding of the horses.

These syces or Native grooms are necessary on account of the large number of horses in a battery, and the impossibility of Europeans working in the middle of the day in the hot weather. If the climate was more temperate, their numbers might be reduced, but they cannot be reduced for ordinary work.

During the hot weather, if there is an unusual amount of sickness, a battery is sometimes under 100 Europeans fit for duty; therefore at such times if the syces were reduced, the work of the Europeans would

be immensely increased and cause even greater sickness, or the horses would be neglected.

*Grass-cutters.*—Bring in grass. No such thing at home, as hay is delivered every day at the barracks by the commissariat.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

<i>India.</i>		<i>England.</i>	
Lascars	... ..	... ..	Soldiers.
Syces	... ..	... ..	Do.
Cooks	... ..	... ..	Do.
Bhcesties	... ..	... ..	Do.
Mistries	... ..	... ..	Do.
Grass-cutters	... ..	... ..	Contractors.
Sweepers	... ..	... ..	Do.
Bullock-drivers	... ..	... ..	No bullocks.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

Non-commissioned officer, quartermaster sergeant.

Limber gunners.

Quartermaster sergeant and battery storeman (usually an old gunner).

The men.

The men.

The men.

Hay is always supplied by commissariat contractor.

Artificers, farrier, and shoeing-smith.

Wheeler.

Collar-maker.

No bullocks in England.

The men.

Artificers.

Major C. F. Nairne, Royal Horse Artillery.

*Tindal store lascars.*—By storemen and limber gunners. But in India these cannot work in the sun or during the heat of the day. Store lascars are also used for orderlies, and to provide guards and sentries over stores which in England do not amount to one-eighth of those in India. They also occasionally take sentry work, when the Englishmen are so reduced that they do not get the minimum of five nights in bed.

*Permanent tent lascars.*—In England no camp equipage is left in battery charge.

*Puckalis; bhisties.*—Water is always laid on in England.

*Sweepers.*—Permanent water closets.

*Syces.*—By the gunners and drivers; but it must be remembered that the number of men in England during peace time in a battery is the same as in India for both peace and war, while there are only 108 horses in England against 178 in India. (There are no wagons in England.) Grooming of horses can be done throughout the day in England, the principal stable hour being mid-day.

The grooming of horses in India during the hot weather is so fatiguing and deleterious to health, that, if I had my way, no Englishman should do it. He is too valuable to be expended in that way; and the morning and evening sun in the hot weather, coupled with the stooping position of the man, induces much fever.

*Grass-cutters.*—By the supply department of the army service corps.

*Bullock-drivers (permanent).*—Partly by the army service corps, partly by railway and carriers, and occasionally by regimental fatigues.

*Native artificers.*—By the English artificers, of whom there are a larger number in England than in India, and they are able to work all day all the year round.

*Mutsuddy (weighman).*—These are connected with duties in the bazaar, and their work is unnecessary in England, owing to the superior enlightenment of and competition among the shop-keepers.

*Cooks and dhobies.*—These men are no expense to the State, being entirely paid by the men. The cook's work is done by the men in England, but is manifestly impracticable during the hot weather in India. The dhobie's work is at home done by the soldiers' wives.

Major P. Fitzgerald Gallwey, Royal Artillery.

Without the trouble of writing down all the followers of a battery, it will be sufficient to say that *all* the duties performed by them in India are done by the men of the battery at home, and much more could be done by the latter out here than is done now.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. R. C. Brough, Royal Artillery.

*Store lascars.*—Thanks in a measure to that excellent system which allows a rotten strap or worn-out article of equipment to be replaced without committees, long indents, and useless delay, there are no stores almost, save those in the battery carriages, at home. The quartermaster sergeant and his assistant look after such few articles as there are.

*Tent lascars.*—Tents there are none.

*Native artificers.*—The collar-maker and his assistant, the wheeler and his, the farrier-sergeant and his shoeing-smiths, are at home equal to the work of all ordinary repairs, but line-gear is unknown, and arsenals take in all articles requiring extensive repairs, re-issuing others in their place at once, and reserving these articles, when repaired, for after-issue.

*Syces.*—Cleaning stables, harness, watering, feeding, and cleaning horses (helped by the gunner when not on other duty), is simply the life of the driver at home. Up early in the morning, both summer and winter, he is never clear of work and duty till late in the evening, unless indeed on Sunday, when, if not on stable duty, he has the afternoon to himself.

*Grass-cutters.*—Hay, or in summer hay or soil, is drawn and brought to the stables by a fatigue-party.

*Bhisties and puchalis.*—Water laid on or pumps render water-carrying unnecessary.

*Sweepers.*—The barrack-rooms, grates, &c., are cleaned by room orderlies.

*Cooking* is done by the men themselves. Coal is drawn once a week by fatigue-parties and distributed by them.

*Washing* is given as a means of making a little money to deserving wives of soldiers.

*Tailors.*—Every battery has men employed in the master-tailor's shop, and he undertakes the making up and repairing of clothing.

*Boot-maker.*—Some outside tradesman enters into an agreement to execute repairs, and contracts to supply boots at a certain cost.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

1 Mistry-smith ...	}	1 Farrier sergeant and 3 shoeing-smiths, with 2 or 3 acting shoeing-smiths.
1 Fireman ...		
2 Filemen ...	}	2 Wheelers.
2 Hammermen ...		
1 Mistry-carpenter ...	}	3 Collar-makers.
2 Carpenters ...		
1 Moochee ...	}	Gunnery.
1 Tindal ...		
12 Store lascars ...	}	Cook's mate.
2 Tent ...		
1 Hand-bhistie ...	}	Gunnery and drivers.
3 Barrack sweepers ...		
3 Jemadar syces ...	}	Drivers.
71 Syces ...		
2 Halalcore bhisties ...	}	Engineer department.
2 Latrine sweepers ...		
1 Bildar ...	}	Contractors.
1 Filth-cart driver ...		
2 Chowkidars for hay-stacks ...	}	All hay is in the hands of contractors.
Grass-cutters ...		

Captain A. D. Anderson, Royal  
Artillery.

See answer to question 1.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

By the non-commissioned officers and men, European soldiers; those who perform these duties being either kept to them more or less continuously (employed men), or else the duties are performed by fatigue-parties. The only exceptions are the duties performed by the dhobies and bhisties, and part of the duties of the sweepers. Water is commonly laid on to barracks at home in pipes, or supplied by pumps; in fact, a barrack resembles a private house in this respect. Any soldier can pump, or turn a tap, and fetch a can or bucket of water. Any soldier may have to cook, sweep, or scrub a barrack-room, staircases, &c. There being water-closets at home, obviates the necessity of the more disgusting part of a sweeper's duties. The contents of dust-bins are, I believe, removed by civilian contractors. The washing is done by soldiers' wives, who get half-a-crown a month (1*d.* per day) from each man they wash for.

14. Is the issue of cloth clothing for British troops necessary in all parts of India?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

I think so. In all stations in Bengal it can be worn with advantage for a short time in the cold season. Batteries ordered northwards for service or in relief must have it, and men ordered to the hills require it.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

Yes, necessary, because troops are liable to be moved from one end of India to the other at a moment's notice. The soldier must be clothed for service in any part of India. See also reply to question 13, paper A.

Colonel C. R. O. Evans, Commanding Royal Artillery, Madras Division.

I should say certainly not. There must be many stations at which it is seldom or never required; but a difficulty in not issuing it at such stations would arise by a battery being suddenly ordered elsewhere where it might be necessary.

Colonel H. Strover, Commanding Royal Artillery, Thayetmye.

In Burma cloth clothing is almost necessary for about six weeks in the early mornings and at night from the middle of December to the end of January; but if the question were put to the men, they might prefer to have serge instead. A serge patrol jacket, that could be worn with or without a serge tunic under it, would give sufficient warmth; but the field artillery have no serge trousers or pantaloons issued to them.

Colonel A. C. Johnson, Royal Horse Artillery.

If cloth clothing is necessary in one part of India, I should say it was necessary in all parts, as in course of relief a regiment or battery is liable to be removed from a very hot station, where there is little or no cold weather, to the Punjab or hill station, where the winter months are very cold.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

The only stations with which I am acquainted where serge clothing would be more suitable than cloth are Madras, St. Thomas' Mount, and Trichinopoly.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I think so; there is no part of India where cloth clothing is not necessary during the night in the cold or monsoon season. I speak from having served in Trichinopoly, Bangalore, Bellary, Secunderabad, and Kamptee (all in the Madras presidency), and of course there can be no question as to the necessity in the north of India; but if it were feasible as regards the climate, such arrangement would interfere greatly with considerations of relief of troops, or immediate movement on service to colder climates, which, with railways, is a matter of a few hours.

Major Bertie Hobart, Royal Artillery. Military Secretary to His Grace the Governor of Madras.

As a matter of necessity for warmth, I do not think that cloth jackets and tunics are required at all stations in India. There are certainly some places in the Madras presidency where they would never be required all the year round; but who can prophesy that any corps may not suddenly require cloth clothing on transfer to a northern station, or to one on high plateaux, as Bangalore or Poona? Instance a regiment from this presidency sent to Afghanistan (as lately), or a battery sent from the almost continued heat of St. Thomas' Mount to the chilling climate of Bangalore, one of the most treacherous stations for the unwary in India. And what man is not liable to be sent as an invalid to a hill station any summer?

Cloth pantaloons are an undoubted necessity for mounted corps for mounted duties; and there is hardly a station in India where cloth overalls and trousers are not a sanitary necessity to keep men from chills in the fall of the year and the winter months, when damp evenings come on and the nights are cold.

Putting aside for the moment (since the question is perhaps raised on the prospect of a possible economy) the fact (though it is by no means unimportant) that the army, without full dress, could never turn out with the parade due and proper to special occasions, which occur from time to time to every corps at almost every station, there is the fact of the British soldier, having enlisted on certain terms, one of which is a suit of full dress annually (or compensation in lieu), and these terms cannot be set aside when he serves in India.

There might by habitually paying compensation be some saving on the freight of material from England and on local clothing establishment charges, yet it is a doubtful policy to make their regulated clothing a source of profit to soldiers; and then it will be evident that any clothing substituted for the cloth full dress must be an extra charge to the State, since the soldier bargained for the same clothing as his comrades in England, and it cannot be insisted that he should take anything inferior.

New terms may be made for a local army; but the terms of his engagement cannot, I think, legally or safely be varied with the present general service British soldiers beyond the alternate annual issues of full dress and undress with compensation.

Major H. C. Lewes, Commanding 1 Battery 1st Brigade, Royal Artillery.

No.—Where there is no cold season it is quite unnecessary. Serge lined with flannel or serge preferable. Cloth trousers, as at present issued, needlessly heavy and hot. A lighter material would be better. Of course pantaloons for mounted men must be strong.

Major J. Haughton, 1-5th Brigade, Royal Artillery.

I don't think it can be necessary anywhere south of Bombay. Serge would be better in the Madras presidency, where I served last year (except at Bangalore in the cold season, and in the Nilgiris).



Major E. T. Hume, Commanding  
C Battery C Brigade, Royal  
Horse Artillery.

Yes, in all parts that I have been to.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse  
Artillery.

I cannot say, having only served in the North-Western Provinces and Punjab. It is certainly necessary there.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

I think not, except pantaloons for mounted troops. Cloth undress jackets and trousers might be done away with, and thick serge given instead.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

No.—Cloth clothing is not worn as many hours at Calcutta as days at Peshawar; and the regulation cloth clothing is too thick for many stations in India at any season of the year.

*N.B.*—A report upon this special subject has lately been furnished to head-quarters by all commanding officers (myself included).

Major C. F. Nairne, Royal  
Horse Artillery.

I have never served in Southern India. Cloth is necessary elsewhere.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

Certainly not to the extent now issued. A soldier at Trichinopoly gets the same clothing as one at Peshawar: this is quite unnecessary. I would have a scale to suit certain geographical circles and also a scale of light clothing; both these the soldier should obtain free, and all compensation be abolished. This system of compensation gives a great deal of trouble to commanding officers, and is a very clumsy one. For cavalry and artillery I would abolish the stable jacket altogether in India: it is never worn on service, and in peace time the serge jacket generally takes its place.

I would retain the dress jacket and tunic (latter for all arms except horse artillery), as, if properly made, it is a warm and becoming dress in a cold climate; but in the Madras and Bombay presidencies, in Burma and Bengal proper, I would issue these only triennially instead of every two years. I have seen Native followers in Southern India wearing cast-off full-dress clothing which was quite good.

I should also like to see the present boots and pantaloons done away with for the above districts. They are totally unsuited to a hot climate, and are a great expense.

Major W. H. Noble, Royal  
Artillery.

The wearing of cloth clothing is certainly not necessary in all parts of India, but its issue depends upon whether batteries in the southern portions of India are liable to be suddenly ordered to stations where cloth clothes are necessary.

Major W. R. C. Brough, Royal  
Artillery.

I do not think the present scale of issue of cloth clothing for artillery can be necessary in any part of India. Even in the Punjab a man in a few years accumulates a heavy kit of duplicates, whilst further south articles as good as new are disposed of.

Major C. Wilson, Royal Artillery.

I consider serge might advantageously be substituted for the tunic and jacket in all parts of the Bengal presidency in which I have served.

Major Barlow, Commanding  
10-8th, Royal Artillery.

I consider cloth clothing to be useless in Burma. During the rains it is found necessary to wear serge. Cloth is quite unbearable in the close damp heat. In the hot weather white clothing is worn. In my experience at Rangoon the so-called cold weather lasts a few days only, and even then serge is warm enough. I have not been at Thayetmyo in the cold season, but have no doubt that serge would be best here also and for the whole of Burma.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

Wherever I have been, cloth pantaloons and trousers are necessary. Serge jackets made loose would do as well as tunics.

Captain A. D. Anderson, Royal  
Artillery.

Yes; I know of no station where it could be dispensed with entirely. The present issues, with occasional compensation in lieu of them, seems to work well. It might be an advantage if at stations (say Barrackpore) where white clothing is much worn if, at the recommendation of commanding officers, compensation in lieu of the clothing were allowed oftener, and in the same way not so often at stations like Bangalore or Poona, where white is but little worn.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

Not in the Madras presidency, nor in Burma, so far as I know. Serge and white clothing are quite sufficient for those parts, and I have never seen cloth worn except on a Queen's birth-day, 1st January, or a general's inspection.

15. In what way can the uniform and equipment of the British army in India be improved?

Brigadier-General C. G. Arbuth-  
not, Inspector-General, Royal  
Artillery for India.

The stable jacket might be abolished, reducing the coats to tunic or dress jackets, white tunic and serge. All drivers should be armed with revolvers.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

The soldier should be clothed for war, and not as at present for peace. Every one should be so clothed as to be able to take the field at a moment's notice with the greatest comfort to himself, so that the most work may be got out of him; and the dress should be such as to be suitable for dusty, sandy, stony roads, rainy muddy weather, hill-climbing, dragging, or carrying heavy weights, marching or riding long distances, sleeping in the clothes, suitable for hot weather and also cold by adding under-clothing. At present the service uniform meets none of these requirements.

See also reply to question 17, paper A.

Colonel C. R. O. Evans, Com-  
manding Royal Artillery, Meerut  
Division.

I consider the uniform and equipment of the mountain batteries as a vast improvement, in every particular almost, on that now in use by either horse or field artillery. The sword, however, of any description, should never be worn on the body of a man serving a gun, in my opinion.

Colonel H. Stover, Command-  
ing Royal Artillery, Thayetmyo.

It might be an improvement to have the drill dyed grey, just dark enough not to show dirt easily. The helmet in use is thought not to give sufficient protection against the sun and not to have sufficient ventilation. Perhaps the wickerwork and cover could be put over pith, and large moveable buttons or pieces closing the tops of the helmets or bases of spikes used. The spike could be fastened into the button, and the button could be placed so as to give more ventilation (if desirable), and could be fastened with three screws with nuts. The knapsack and valise appear to be too heavy for use in India in marching. A light tourist's knapsack made of the flax cloth used for shooting, gaiters, bags, &c., and lined with cloth macintosh, that should be kept from touching the back by a framework of wood or cane, would make it possible for a man to carry always a change of clothes, brushes, &c., in it on marching. The valise and large bag do not appear to be made of sufficiently strong material. I consider these could be made with great advantage of the material I have stated as used for the tourist's knapsack, and have leather at the bottom, and leather straps that should take all the strain going nearly all round, being stitched to the leather bottom, so that the weight of the valise or bag should never bear on the material they are made of only, but always on the leather straps. In Afghanistan, Canadian knee-boots, fur caps and gloves, and the rest of the Canadian winter kit, would be very good in the cold season.

Lieutenant-Colonel J. Taylor,  
Commanding Royal Artillery,  
Mysore Division.

The present tunic should be made like a Norfolk jacket. It could then be made far looser, without looking unsightly, and thus allow of more clothing being worn underneath in cold climates; it would also be a suitable dress in which to work. I will make no observations on the stable jacket, as it is about to be superseded by the patrol jacket. I am of opinion that want of elasticity is the great fault to be found with the material of which all soldiers' uniform is made. This remark applies particularly to material for mounted men's clothing. Valises ought invariably to be made of water-proof material, as also cloaks and capes.

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

For all occasions, except when full dress is worn (which ought to be kept intact as it now stands *above* the waist). I would have a loose blouse for all branches, with neat and necessary distinctions, tied in comfortably at the waist; and for mounted men knee-breeches and gaiters, with ankle boots and hunting spurs (dress and all kinds of undress).

Each man should always have two pairs of these boots; but they would not weigh with the gaiters as much as one pair of the present knee-boots. Baggage would thus be greatly reduced. The carriage of three pairs at least of *different* kinds of boots for mounted men as at present (for a soldier) is absurd.

Then a khaki blouse and pair of knee-breeches, to be used in all seasons on service and instead of the white during the hot weather in peace, should be introduced.

Some years ago khaki was ordered instead of white for the British army; but in a very few months afterwards khaki was represented by all sorts of colors, even in the same regiment. Since then, however, I have seen Native regiments dressed throughout in a uniform khaki color (so the dye is now apparently better understood). I speak notably of the 20th Punjab Native Infantry at Peshawar in 1876. If that color could be secured to the whole army, it would be a workman-like and really serviceable one. Officers, however, should be allowed to wear white at mess, as at present in the hot weather during peace, but not on service.

In this way both a hot and cold weather dress for peace and war would be in each man's possession, and both should be carried on all occasions.

The khaki suits should be made large enough to be worn over the cloth suits, if necessary: their addition in cold weather on service would be an advantage both as regards warmth and color. In hot weather the cloth clothing must be carried as baggage.

I think buff leather should be discarded altogether; it retains wet longer than any other kind, and when it does dry, it is found to be out of shape and hard.

An extra supply of *cool* water could very well be carried for horse and field artillery were a large piece of leather slung under each wagon body. On this *mussocks* when filled might be placed by the bhistics. This system was carried out by the old Bengal artillery.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I do not think that the uniform of the British army for all-round purposes can be improved on. I believe the equipment of each branch of the service is very well maintained in all matters up to the latest ideas and improvements. The only improvement I would advocate is one which has often been put forward, and demonstrated by adoption in the irregular cavalry of this country and in some volunteer corps at home as being the best notion of efficiency, *viz.*, leather scabbards for all swords, say black with brass or steel mountings, according to the arm of the service.

That steel scabbards were of late years adopted for infantry officers seems only to be accounted for on the grounds of fashion. Leather wood-lined scabbards will after a time break, according to the fate of all perishable articles; yet steel scabbards are not superior to wearing out and accidents. Infantry bayonets are in black brass-mounted scabbards; so are the sword bayonets of the royal engineers, and so might be the sword bayonets of the royal artillery. Cavalry regiments now at camps of exercise, and when ordered for field service, often blacken their sword scabbards, to avoid the conspicuous glitter. Why should they not have black scabbards with steel mountings, and horse artillery also; although the more constant mounting and dismounting, the liability to catch looped swords in wheels, and the fact of artillery not having to perform conspicuous outpost duties makes such a change less necessary or desirable for them? The decrease of rattle in both services is desirable, and often very necessary.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

Abolish the tunic. Introduce for royal artillery a jacket more of the cut of the officer's patrol, or hussar's pattern, sword-belts underneath. For infantry, Norfolk jacket pattern, which, neatly made, will give freedom and look well; Sam Browne's belt.

Knee-boots on service anywhere are a mistake. There is nothing like the gaiter, shooting (or ankle) boot, hunting spur, and pantaloons.

Knickerbockers for dismounted men.

The soldier's great-coat is a most inferior article—the infantry worse than the royal artillery; but both bad enough. They get wet through in about 20 minutes in rain. Then what can be worse than dark-blue as a color? The cloth that is made in Afghanistan and those parts, or an Irish frieze, would be better. The good brown color of the former would be most serviceable, and the quality of the stuff is undeniable. Than the appearance of inferior blue cloth after a hard march through rain and slush there is no comparison.

It is admitted on all sides that the present peace uniform is of little use in time of war.

I do not like the mounted man's valise. It takes too much packing, and the material (blue cloth) is not so good as leather; but the latter would be heavier, which is an objection. If saddle-bags could be substituted, it might be an improvement. Then the *appearance* of the valise is in its favor. At reviews, &c., &c., it *looks* well.

*N.B.*—Royal artillery drivers should have some means of defence. I think a double-barrelled breech-loading pistol, same bore as carbine, so that on emergency that ammunition could be used.

The nose-bags and horse sacks are not durable.

Major J. Haughton, 1-8th Brigade, Royal Artillery.

By making all tunics of the Norfolk jacket shape, loose about the shoulders, confined at the waist by a cloth belt, removable when a leather belt is required. Instead of trousers have knickerbockers for foot-soldiers, with gaiters to spread over the instep. Mounted men to have no trousers, only breeches and long boots, with gaiters and shoes also. Two breast-pockets and two skirt-pockets in the coat.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

1st.—By adopting the hook at the side of the helmet, as at home.

2nd.—By introducing the valise bed for all ranks, in place of the present cumbersome and unsightly method of carrying the men's bedding and bags.

3rd.—In the horse artillery by adopting the loose serge jacket for wear at all drills, &c., when the tight-fitting stable jacket is at present worn by the men; also in lieu of the full-dress jacket when on the line of march.

4th.—In the horse and field artillery by replacing the present collar chains by head ropes, attaching covers to the wallets on officers' saddles, making officers carry field-glasses in place of the present useless pouch, and arming all drivers.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

I would not recommend any sweeping changes in the uniform of the army.

It must be remembered that a state of war is exceptional, a state of peace being the rule; and in an army entirely recruited by voluntary enlistment, it is most essential that the dress should be attractive.

The uniform is very good for peace soldiering, and is serviceable for campaigning in a temperate climate. In India, for hot weather campaigning, the present white cloths dyed khaki are suitable.

For campaigning in exceptional cold climates it will always be necessary to serve out extra warm clothing, as had to be done in the Crimea.

There are some few things that should most certainly be altered; and these are—

Pipe-clay belts should be abolished and brown leather substituted.

The manner of carrying the sword should be altered, and a short frog substituted for the present slings. All mounted corps should wear the sword underneath the tunic; the belt could then be of strong soft webbing and made like a girdle, with a webbing support over the right shoulder.

The white doeskin gloves used in mounted corps should be abolished, as they are useless, expensive, and get filthily dirty inside.

The eye would soon get accustomed to their loss.

Gloves only should be worn by a soldier in very inclement weather, as a protection; they should then be woollen gloves.

The officer's pouch belt should be altered or abolished; at present it is useless.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

Have one full dress and only one undress, say of serge. Do away with undress jacket, cloth trousers, and Wellington boots, heel spurs, pipe-clay white belts, and leather gloves, also present forage cap.

Let issue be—

1 full-dress tunic	...	...	} Biennially.
1 pair of jack boots	...	...	
1 serge coat	...	...	} Annually.
1 serge trousers, pair	...	...	
1 cloth pantaloons, pair	...	...	
1 warm gloves, pair	...	...	
1 ankle boots, pair	...	...	Twice a year.

Issue brown leather belts—those for sergeants of all services and drivers of artillery, with pouch and case to carry pistol and ammunition. Issue a folding forage cap.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

The first thing is to arrange to open the coat at the throat and abolish the stand-up collar; introduce trousers very high in the waist and regular *kamarbands*; let the hot-weather jacket only fasten across the breast, hanging open over *kamarband*; have a serge coat and a cloth coat of Norfolk pattern or the present serge pattern, which would answer well; keep one full-dress suit for state occasions.

Major C. F. Nairne, Royal Horse Artillery.

Abolish undress jackets and make the undress loose, comfortable, and easily kept clean. A Norfolk jacket of blue serge with pockets, made loose enough to be worn over the dress jacket, if needed, would do well, and might supersede the white tunic as well as the undress jacket. Give up buff belts and have either brown or black leather; brown is best.

If the sword be retained, it should be hung from a frog. The present slings are very dangerous when leaping, as well as fatiguing. The sword belt should hang from the shoulder.

I prefer the booted overall to boots and breeches; but if the long boots are retained, they ought to have a gusset over the instep closed with a lace, much as in the so-called field-boot. The leather of the spur could be made to hide this. At present many of the men cannot get a wet boot off and on. Change the present soda-water bottle for a flat one made of ebonite. The present bottle is heavy, holds too little, and breaks in large numbers. All garrison artillery should have gaiters.

Major P. Fitzgerald Gallwey, Royal Artillery.

I think for the provinces referred to in answer 14 the issue *free* should be—

1 dress jacket or tunic	...	Every three years.
2 neatly-made serge jackets or short tunics	...	Annually.
2 pairs cloth trousers	...	Annually: 1 to infantry and dismounted royal artillery.

3 khaki jackets or short tunics.	} Annually: 4 to mounted men.
3 pairs khaki trousers ...	
2 pairs Wellington and 1 pair Cossack boots ...	Annually to mounted men.
2 pairs infantry boots ...	Annually to dismounted men.

It is difficult to suggest any improvement in equipment without the same being carried out at home; but I look on the present white belts (certainly in the infantry and garrison royal artillery) as totally unsuited to the soldier. I would substitute brown leather belts for them. An infantry or garrison artilleryman is now a mass of pipeclay when he turns out in marching order, especially with the new valise equipment on.

Major W. H. Noble, Royal Artillery.

The uniform and equipment of the British army in India are undoubtedly open to great improvement.

I would suggest that the whole question should be considered by a special committee of regimental officers representing the various branches of the service, and with experience in the several climates of India.

The broad principles which should govern their recommendations should be—

(a) Clothing the soldier in time of peace in garments which, with slight alterations or additions, would be suitable for time of war.

(b) The abolition of articles, the care and preservation of which require extra work, and thus worry the soldier. Buff belts for example.

(c) The abandonment of mere appearance in favor of workman-like efficiency.

(d) Shaping the clothing so as to admit of free motion, and the addition of under-garments if necessary.

Any one who has seen a European mountain battery in India must have been struck by the admirable nature and soldierlike appearance of the clothing and equipment.

There is no reason why other services should not be made equally efficient.

Major W. R. C. Brough, Royal Artillery.

In the royal artillery a really serviceable and uniform head-dress of durable material is urgently required. A cork and india-rubber helmet issued from home turned out a complete failure; but I have seen felt helmets procured privately last in use with the men for years. Spikes are in the artillery not alone useless, but dangerous. A drab felt helmet, with brass dome ventilator and leather chin strap, if of proper shape, would be a serviceable and soldierlike head-dress. White clothing is unserviceable; and for mounted duties necessitates the one thing difficult to avoid in India—an immense kit. Yarn-dyed drab or khaki drill, if of good quality, retains its color for years; and Government might well substitute suits of this for some of the present useless cloth clothing. Men could complete this kit themselves, mounted men being allowed pantaloons for mounted duties.

*Equipment.*—The present water-bottle, being tightly covered with leather, is broken by a blow or jar against any hard substance: a piece of common country *numnah*, or thick coarse cloth, between the bottle and leather would almost totally prevent this. The havresack should be of khaki or drab canvas—*never worn folded*, and washed only when necessary. Brown leather instead of buff for sword-belt, &c., would be cheaper, more serviceable; and the material for repair would be always either at hand or easily procurable. Leather, not cloth, should be used for the manufacture of valises of men and line-gear bags of artillery. Cloth or canvas cannot last. At home valises are protected by sheep-skin covers—not so in this country; and not alone do they admit wet, but both they and the present line-gear bags become quickly worn out.

Picket ropes should be of three-inch not two-inch rope, and should be occasionally re-tarred.

Picket-posts should be large-headed iron pins, which would drive in almost any ground without breaking, as the present wooden ones so often do.

Major Barlow, Commanding 108th, Royal Artillery.

In lieu of any free issue of clothing, add the value to the pay, and then let the whole of the uniform be kept up in the same way as the rest of the regimental necessaries. I believe there would be a saving to Government, as well as an advantage to the men, if this method was adopted. Once the material for uniform is fixed on (say for Burma serge and white drill), the officer commanding would indent on the clothing department for material. Payment would be made as is now done for regimental necessaries—*i.e.*, as the material was used up, payment would be made. All returns connected with clothing might be simplified by this, and much waste would be prevented, as a careful soldier would be able to keep up his uniform with a small expenditure.

Under the present system a man with good tunic receives a second at a fixed time, the issue is of no use, and is so much value thrown away. The same system might apply to bedding.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

As regards artillery, by throwing the tunic and stable jacket into one loose-made patrol coat for dress, and undress to be made of cloth one year and serge the next, and so fitted that it could have extra under-clothing to adapt it to various weathers. Abolish the white helmet, which is conspicuous and wears badly, and adopt a grey and drab felt one, with colored turban according to facings. Abolish white belts, and sling cavalry swords by a frog. A sharp spike is bad and dangerous in limbering up or picking up a horse's foot. A cannon-ball ornament would for artillery be safe and appropriate.

Captain A. D. Anderson, Royal  
Artillery.

The committee of which Colonel Macgregor was president was going very fully into this point, and good was likely to have come of it. I beg to suggest that that committee be reassembled at the beginning of next season and the work commenced by it be completed. Generally speaking, in artillery the shell-jacket is unserviceable; but its abolition is being introduced in England, and India will follow. This will only leave us a full and an undress coat. The long boot has, I think, by all been proved unserviceable. A lace-up boot with a leather legging could be made serviceable as well as neat in shape. The artillery carbines could well be dispensed with; and give every man a pistol. Something more serviceable than the forage cap might easily be devised. A serviceable water-bottle is required.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

I have never seen troops so well turned out as the Sikhs and Goorkhas (*i.e.*, as regards the khaki uniform of the latter)—I mean for service. I think the uniform of an officer (European) of a khaki-wearing Native regiment might be taken as a model for the British army in India. Of course, some slight modification would be necessary, but that might be the model; and a neat, soldierlike, and most serviceable uniform might be provided, vastly superior to the present.

16. Would you recommend the issue of a service suit of clothing made of cheap and durable material to be worn on service in the field instead of the present uniform?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

There should be a good khaki suit for service, sufficiently loose to go over serge or cloth clothing.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

See answer to question 15.

Colonel C. R. O. Evans, Com-  
manding Royal Artillery, Meerut  
Division.

I would not. I would dress the soldier in a uniform that he could wear on service, and not in one which he has to lay aside on being called upon to perform a soldier's most important duty.

Colonel H. Strover, Commanding  
Royal Artillery, Thayetmyo.

I have no experience of the grass and flax cloths, &c. The regiments and batteries that are now in this station, on being ordered to be in readiness for active service, had the white drill uniform dyed. The 10-8th and K-1st Brigades Royal Artillery and the 31st Regiment Punjab Light Infantry now wear drill dyed a reddish-brown color with catch. The 43rd Light Infantry and 19th Regiment Madras Native Infantry and 44th East Essex Regiment have the drill dyed a dull greyish yellow with gunpowder. The 32nd Regiment Madras Native Infantry have the drill dyed a dark-grey color with a purple tinge. The last appears the best and seems to keep its color well. I consider the last an improvement on white for service on all occasions.

Colonel A. C. Johnson, Royal  
Horse Artillery.

I think the uniform worn by the European mountain batteries admirably adapted for field service for all branches, mounted men being supplied with boots and breeches instead of knickerbockers and gaiters.

Lieutenant-Colonel J. Taylor,  
Commanding Royal Artillery,  
Mysore Division.

I would recommend the issue of two suits per man of khaki drill, made loose enough to be worn over cloth clothing when necessary, or by itself when the weather suited.

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

I would not. Its issue would cause great trouble, just at a time when there is always plenty to do, and also add greatly to expense.

Were the suggestions in answer 15 carried out, this would be quite unnecessary.

Major Bertie Hobart, Royal  
Artillery, Military Secretary to  
His Grace the Governor of Madras.

I do not see the object of issuing an additional dress for service. White clothing is out of the question; but if the soldier has one of his white suits dyed khaki color, has his serge suit, which by itself will practically do for any climate, and has his cloth full dress, which can

be worn by itself for warmth in ordinary cold climate, it is as much as can be carried. I do not see the object of saving full dress clothing when it is required, even on rough service. It is made to be used; it is an annual issue under agreement with the soldier, and is the property of the State. A full-dress jacket or tunic can be worn under a serge frock, as if it were a warm waistcoat, in severe cold; and in an exceptionally cold climate (when the wearing of cloaks and great-coats is insufficient), *poshtcens* or other thick over-jackets would doubtless be issued to the troops.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

Yes; and made large enough to wear over the uniform in cold weather.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

No; I would not.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

Campaigns in India are under such different circumstances, the troops may suffer from the extreme of either cold or heat.

Should the troops have a winter campaign in the hills, I would recommend the issue of a suit of warm clothing of durable material; but I doubt any material being at the same time durable and cheap.

For a summer campaign in the plains nothing is better than cotton khaki suits, and during a winter campaign in the plains the ordinary uniform.

Major T. M. Hazebigg, Commanding E-3rd, Royal Artillery.

No.—Undress uniform ought to suffice, if made of good material.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

Yes; an established pattern should be arranged for, so that commanding officers could procure it locally when required. Distinguishing badges for staff departments, regiments, and ranks *very much needed for discipline* as well as convenience, even in hot-weather clothes.

Major C. F. Nairne, Royal Horse Artillery.

Yes; a thick khaki cotton Norfolk jacket, made loose and comfortable with pockets; if necessary, to be worn over the dress jacket or cloth uniform.

This is necessary, and during recent operations was provided by the men themselves.

Major P. Fitzgerald Gallwey, Royal Artillery.

No.—I think if the present uniform was modified as above, it would answer all purposes of a campaign. White clothing should be abolished and good strong khaki issued instead: this, with the serge, would be ample. We have too many dresses as it is.

Major W. H. Noble, Royal Artillery.

This would not be necessary if the soldier were suitably clothed in time of peace.

Major W. R. C. Brough, Royal Artillery.

Yes, certainly: but why not issue this suit for cold weather wear, and abolish the issue of the confessedly useless portion of the present uniform?

Major Barlow, Commanding 10-8th, Royal Artillery.

Certainly, as I do not consider the present uniform suited to the climate; but, as an alternative, I would prefer to extend the principle recommended above in answer to question 15.

It would be difficult to fix on any dress which would be suitable to such variations of climate as are experienced in the Indian empire—for example, a dress suited to a campaign in Afghanistan, or to one in Burma. As a general rule, the ordinary dress would be suited to work in the field, or would be capable of being made so by a few alterations or additions. Much elasticity would be gained by making a payment in money of so much a head when troops are placed in order for active service; the sum to be expended by the commanding officer, under the sanction of the general, in providing such extra clothing as may be required. For a campaign in the hills warm under-clothing would be useful. For a summer campaign in Burma a strong dyed suit of drill or canvas, and in all cases an extra issue of boots.

Captain W. Law, Commanding C-2nd, Royal Artillery.

Velveteen and corduroy are keepers' wear: the former could be smart enough for every-day use. I think the soldier's ordinary uniform would be fit for him to go fighting in: it undoubtedly is not so at present; and until such a uniform is suggested, the service suit seems a necessity.

Captain A. D. Anderson, Royal Artillery.

No; extra suits mean lumber and trouble. The peace and war dress should be the same. The present arrangement of summer clothing being supplied regimentally is good, and would provide everything if Government, to gain its object, would do the following:—

(1) Order all summer coats to be made Norfolk pattern. This, being itself a loose fitting article, would provide for its being worn over other coats, and cloth might be doubled under at the side-seams.

(2) Contract with private firms to supply commanding officers, on payment, with yarn-dyed khaki cloth in the piece.

The summer clothing would then be what is required for service; and uniformity would be ensured without the hurry and confusion that arose regarding much of the summer clothing at the beginning of this campaign.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

Yes, of khaki. But the uniform should be neat and soldierlike as well as cheap and durable. It should have metal buttons, the ordinary regimental buttons in fact, and the regimental facings; also the usual distinctions of rank, though not in gold lace. See remarks above. Though cheap, it need not be nasty. I much doubt, however, that if this uniform were not worn in peace, it would be forthcoming on the outbreak of war. At the end of the war, or say six months after it began, the uniform would no doubt be available in large quantities.

17. Can you suggest any economy in such matters as lighting of barracks, punkha-pulling, barrack furniture, bedding, &c.

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

No.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

No, I cannot, never having studied the question.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

In these matters the commissariat ought to be more economical than any other in so far as supplying; but I think certain extravagance is incurred through the system of fixing maximum rates for such matters.

Colonel H. Strover, Commanding Royal Artillery, Thayetmyo.

The lighting at present in practice should be economical. It appears to be the simplest form of lighting; but I consider it would add greatly to the comfort of the men to have oil-lamps with good-sized chimneys and reflectors, that should be hung against the walls or posts about five feet from the floors. The hanging lamps now used give no light for reading or writing. The barracks in England are well lighted with gas. The artificers and Native carpenters could be directed (when not actually employed at work on carriages of the field and heavy artillery) to make or repair furniture, they being remunerated for it. It might answer to have a machine of wood, with some ironwork, which should reduce the number of punkha-pullers in large rooms. It is very probable that this has been tried; but as I do not know what has been done, I mention it. The machine consists of two wheels, placed in the plane or direction of the punkha ropes to be pulled, connected by a framework of timber, and working together by means of a leather or gutta-percha band. The axles of the wheels are to revolve in sockets fitted into beams of wood, which should be fixed firmly on the ground. The smaller wheel is to be near the building, and is to have a projecting arm standing out perpendicularly from it at a distance of eighteen inches from its centre. To this the end of the punkha rope is to be fastened. This will give a pull of three feet on the punkha rope when the wheels are revolving. The large wheel is to be turned by a winch handle of a convenient length of lever, two feet three or two feet six inches long. This lever is to be worked by two coolies. It is to have a moderately small wheel on the horizontal part of it, and to work like a winch the large wheel, which is to be seven or eight feet in diameter. The cogs of the wheel on the winch handle and on the nave of the large wheel are to be of iron, which could be lacquered when the punkha season is over. The front or smaller wheel is to be four or five feet, or of whatever diameter may be found to give the required rate of pull to the rope. The axle of this front wheel is to be very long, to counteract the effect of the weight of the pull of the punkha rope coming only on one side; and the distance the arm projects from the side of this wheel is to be just sufficient to keep the rope from grazing against the circumference of this wheel.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

I can only suggest the lighting of barracks by kerosine oil as a great improvement and possible economy, and punkha-pulling by machinery as an economy.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

I believe a system of pulling punkhas by bullock draught has been carried out successfully in some places. If this could be done in barracks, it appears to me that it would result in great saving of money.

I can suggest no other economy.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I cannot suggest any economy in the lighting of barrack-rooms. As a regimental officer, I think the light in the men's room is generally most inadequate. The gloom of the usual ill-lighted room adds to the



dispiriting effect of the hot weary evenings, and makes cold evenings seem colder. Men cannot read or write without keeping a private lamp. There is no reason why they should not put themselves to such a useful expense, but it is not right on principle. The reading-room certainly can be resorted to for these purposes; but the more genial canteen is the usual result.

I think any less punkha-pulling would be very very bad economy to the State in respect of the health of the soldiers as well as inconsiderate to the men themselves; but I do think that the work of pulling might be done mechanically at a direct saving in the cost of coolies and at a manifest advantage in doing away with their presence about barracks. The mode in which it is to be done might now be fairly worked out. Attempts to solve the problem have been, I believe, made from time to time during many past years, but without any scheme being established. I doubt steam-power being used economically or efficiently, except perhaps at the capitals, and at a few large stations, where the services of mechanical engineers are available to keep the engines going. Professional knowledge of steam machinery not being usually available, engines are more often an encumbrance in India than a lasting benefit, since the ordinary modes of labor of the country, which are suppressed and abandoned on their introduction, cannot be revived when a breakdown occurs. I believe bullock power working trains of punkhas through appropriate gearing will be found the best.

A scheme proposed by Lieutenant-Colonel Nowell Swanston, of the Quarter-Master-General's Department, Madras, seems well worthy of the consideration of the Commission.

I do not think that the ordinary barrack furniture is more than sufficient; and I do not know how it can be supplied in the first instance better than by contract with or without the intervention of the commissariat or other department.

I would not curtail the soldier's bedding in any way. To do so would, I am sure, be a danger to his rest, and therefore to his health; but I have always thought that certain unnecessary rights and privileges in respect of bedding (or compensation in lieu) are given to British soldiers in India. Why he should have a portion of his bedding given him here any more than in England or the Colonies, I never understood. The privilege, however, would have to be dealt with carefully as regards men now serving; but economy might be exercised in the matter when framing terms for local enlistment.

As regards other items of supply, I should think economy might be exercised by a larger supply of hill-brewed beer, instead of imported English beer. The large consumption of Murree beer at stations in the Punjab proves its popularity, especially in the summer months. I do not see why, if the supply of a good article can be maintained and developed, there should be any option given in the matter, at all events during the hot months of the year. The introduction of Indian teas in place of China teas was at first made on the vote of the British soldier; but in this matter the local article has been at length accepted as almost, if not entirely, the sole article of issue.

An opportunity for a similar economy in this presidency has just presented itself by the opening of a brewery with the latest forms of improved machinery and appliances at Ootacamund. The encouragement of Government may develop this into an industry economical to the State.

I would further recommend that the most stringent orders be given, since the *suggestions* for many years past of the highest authorities in England and in India have been of little avail, that the departments of supply, such as medical, commissariat, and ordnance, obtain every article that can possibly be got in India, not demurring to country-produce or country-made articles, because in shape, color, or texture they are not quite equal to European goods.

Trades may be developed in the country by a Government demand, trades which in some cases have languished or disappeared in the face of foreign importations. The British soldier has not that I ever learnt any prescriptive and inalienable right to European supplies when he serves in India.

I cannot. Everything seems to me to be done as economically as possible. An idea has struck me that Government bullocks might be made available for punkha-pulling, but I am not sure that my plan is feasible.

I can suggest none.

No; these items are already cut down to the lowest possible allowance.

Major H. C. Lewis, Commanding  
I Battery 1st Brigade, Royal  
Artillery.

Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse Artil-  
lery.

Major T. M. Hazebigg, Commanding E-3rd, Royal Artillery.

Major the Hon'ble A. Stewart, Commanding I-C, Royal Horse Artillery.

No.

I cannot pretend that I have any knowledge of the actual cost to Government of all these matters; but it seems quite certain that in a well-organized regiment or battery in India, where there are many long weary hours to pass, and where it is good to find useful easy employment for as many officers and men as possible, economy would result, and extra comfort would be ensured, if the lighting of barracks was under regimental arrangements.

But—

1st, an allowance for purchase of lamps upon arrival in India (they would soon be brought from England with the regiment) must be made;

2ndly, a monthly allowance for their maintenance and hanging and purchase of oil or candles.

The contract for punkha-pulling also always induces lively competition, which shows it must be a "good thing." So again a good commanding officer would probably make a better *bunderbus* if entirely independent than as at present.

The same argument would apply to bedding, and I imagine also to the supply of tea, sugar, salt, rice, &c., whilst a large amount of correspondence would be saved and wholesome competition introduced, and necessarily a number of intermediate issuers and officials of various kinds at present in the employment of Government would be also saved. But, then, on a campaign out of India these things would have to be supplied as in Europe.

Would it not be possible to have barrack furniture supplied by contract to regiments on hire by Native contractors, and save Government the present enormous barrack establishment?

The demand should soon create the supply.

Major C. F. Nairne, Royal Horse Artillery.

Work punkhas by machinery; tatties might be discontinued in barracks. My experience is that the men do not take the trouble to keep them properly wetted. We get on without them at Sialkot very well.

At the recommendation of the principal veterinary surgeon, 4 inches of sand is ordered to be laid down in permanent stables and 4 inches of arable soil in the open horse standings; these are supplied from a distance at a considerable expense by the Public Works Department, and removed as they become soiled. I offered to keep up the supply myself of *dry earth*, which is all that is necessary, but the principal veterinary surgeon insisted on sand and arable soil respectively. I have my own private carts, and my plan would have cost nothing; but sand is only procurable at a distance, and I don't know "arable" from any other soil; common clean dry earth would of course be equally efficacious.

Major P. Fitzgerald Gallwey, Royal Artillery.

I can only suggest the larger use of powerful thermantidotes instead of punkhas. I think all beds should be iron; wooden cots are too frequently condemned, and a great source of expense; they are moreover very dirty.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. R. C. Brough, Royal Artillery.

No; and I trust no reduction in the number of lights now allowed will be decided on. Barrack-rooms are cheerless enough without reducing them to their former darkness. I believe every possible economy of labor has been effected in the arrangement of punkhas; and I cannot see how fewer men are to pull the sets. The allotment of barrack furniture and bedding is, if anything, too low already; and I cannot call to mind any article of petty supply to batteries admitting of reduction.

Captain A. D. Anderson, Royal Artillery.

The present means of obtaining grass for Government horses is unsatisfactory, difficult for the grass-cutters and unjust for the land-owners.

The question is one of yearly increasing importance, is constantly brought forward in all parts of India by complaints from the tillers of the soil, and must sooner or later be taken up by Government and provided for. Ultimately, I feel certain there will only be a choice of two ways of meeting our requirements:—

(1) Through the commissariat buying and contracting in the public markets.

(2) By Government taking up tracts of land within reach of cantonments, settling grass-cutters on them, and going in for the cultivation of grass and hay.

The results to be obtained from plan No. 2 (as may be shown from experiments at Bangalore) are so successful, the yield and quality of the grass and hay are so much improved, and the economy over the present system so marked, that should the committee deem it worthy of consideration, I will be glad to lay a paper on it before them.

Captain G. C. Bayley, Royal Artillery.

Not as regards barracks and matters connected with them.

18. Could not petty barrack repairs and maintenance of barrack furniture, &c., be provided for regimentally by fixing a maximum allowance within which the officer commanding might sanction expenditure?

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

I think this could be done with advantage.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I do not think this would be found to answer. I think the voluntary contract system the best: *vide* my reply to question 19, paper A.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I am opposed in the interests of Government to the principle of fixed maximum allowances; for I almost invariably find, try what I may, that the same become normal rates, and rather naturally so; for, let once the maximum allowance be found insufficient for any fixed period and a demand made upon private resources to make good the deficiency, and through dread of any repetition thereof it will cause the maximum to be demanded for all future time. I have no doubt, however, that these repairs, being provided regimentally, would result in a saving.

Colonel H. Stover, Commanding Royal Artillery, Thuyetmyo.

I consider that it might be done by some corps, but that it would be uncertain, depending upon the number and good behaviour of the skilled workmen. The non-commissioned officers might not wish to be employed in this manner.

Colonel A. C. Johnson, Royal Horse Artillery.

I think a large saving to Government would accrue by placing petty barrack repairs and maintenance of barrack furniture in the hands of the officer commanding, even if the maximum allowance limiting the expenditure was very liberal. I also think it would place the assessment of barrack damages on a much more satisfactory footing.

Lieutenant-Colonel J. Taylor, Commanding Royal Artillery, Mysore Division.

Yes; and the system would do away with much annoyance, and bring benefit to the men themselves, as most likely barrack damages would then be brought home to the perpetrators.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

No.—The commanding officer has too much to attend to as it is, but besides this would lead to endless disputes on the relief of troops. The present plan is more satisfactory in every way.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I quite think that a maximum allowance for such services would be a very good move. Many things would be done without, or made to last longer than now, when the demands on the public works and barrack departments are not specifically limited.

Some of the allowance might be paid to commanding officers, who will undertake to get the work done by corps arrangements and so keep the money in the family.

Repairs to furniture might be executed in regimental voluntary workshops to a great extent, if soldiers will work at moderate rates; and whitewashing and similar work not requiring skilled labor might be done by many of the followers, when they can be spared from their proper avocations, who will be glad to earn something to supplement their pay at low rates of daily labor.

Such a system of annual repair allowance would probably enable the discharge of a portion of the subordinate supervising establishments of the departments concerned, as well as the discontinuance of much hired labor.

Major H. C. Lewes, Commanding I Battery 1st Brigade, Royal Artillery.

Yes, with advantage I think, provided uniformity was observed.

Major J. Haughton, 1-8th Brigade, Royal Artillery.

I think so, decidedly. Sappers are as good soldiers and as soldier-like as any in the service, and their time is mainly spent at manual labor. Useful work at any trade is good for a soldier, although his drill should be greatly curtailed by it.

Major E. T. Huene, Commanding C Battery C Brigade, Royal Horse Artillery.

Yes, certainly they could, and with advantage both to the State and the soldier.

Major W. W. Munroch, Commanding E A, Royal Horse Artillery.

Yes; petty barrack repairs and the maintenance of barrack furniture could be so provided for.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

No.—Work could hardly be performed satisfactorily.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

It appears to me that the Executive Engineer in charge of the barracks could do this with the assistance of the artificers and workmen in a regiment. But great difficulty would be found in giving and taking over barracks and assessing damages, &c., if the commanding officer received the allowance for maintenance and repairs, as proposed in the question.

Major C. F. Nairne, Royal Horse  
Artillery.

Yes; I think it would be a good plan.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

I am unable to answer this question; but I can testify that there seems to be a constant state of repair existing in most barracks, and gangs of coolies are constantly employed about them.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. B. C. Brough, Royal  
Artillery.

I do not think so—at least with artillery, where a tradesman is always employed as an artificer; and these artificers already have their hands full.

Captain W. Law, Commanding  
C-2nd, Royal Artillery.

The battery wheeler says he could not do it at the rates of the public works department tender, which I got for him to compare, i.e., if he had to provide his own materials, such as glass, &c.

Captain G. C. Bayley, 13-8th,  
Royal Artillery.

No doubt such a plan is possible; but I consider it in the highest degree undesirable, at all events as regards the artillery. The commanding officer has already (at all events the commanding officer of a battery) far too many things to look after without undertaking any such addition to his duties.

### 19. What do you consider to be the results of experience in the working of the medical and hospital system as practised generally in India?

Brigadier-General C. G. Arbuthnot,  
Inspector-General, Royal Artillery,  
for India.

My opinion is, that a system well adapted to the requirements of a large force at home requires considerable modifications to render it suitable to this country. Even when there is a large force in the field, it is usually so dispersed, that the system of base hospitals can with difficulty be worked. In deciding on a medical and hospital system for India, epidemics of cholera, which unfortunately are so frequent, must be taken into consideration. Dispersion is then the order, not concentration. When a station is attacked, the troops are dispersed; and much depends not only on the zeal and ability of the regimental medical officer, but also on his personal knowledge of the men and the influence he has acquired over them.

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

Hardly satisfactory. I have always clung to, and my sympathies are with, the regimental system. Experience of years in all parts of the world assures me that under the old system much good resulted owing to the relations between the soldiers and the medical officers.

I have always encouraged that confidence; and from the perfect harmony which existed between myself and the medical officer, much good has resulted, not only in the prevention of disease, but even in the interests of discipline.

I am of the opinion that we must revert again to a modification of the regimental system as the best; but, as remarked in reply to question 3, under heading Medical, paper A, I think we should have base hospitals where feasible, in view to relieving those with the corps in the field, and to keep the force as mobile as possible.

I have no faith in the plea of those who urge the unification system for the sake of economy. Doubtless in outlay the latter is the cheapest; but I consider that the saving of soldiers and the good effect on health and discipline, as also, as before stated, the prevention of disease, under the old system, would, if it could be calculated, more than counterbalance its increased expense.

Colonel C. R. O. Evans, Com-  
manding Royal Artillery, Meerut  
Division.

There is no doubt a very considerable saving could be effected by the establishment of general hospitals at large stations, and by lessening the large preponderance of senior medical officers on high pay through introducing a proper proportion of junior officers.

Lieutenant-Colonel J. Taylor,  
Commanding Royal Artillery, Mysore  
Division.

I am of opinion the present system does not work so well as the old one under which, for the most part, every battery had its own doctor permanently posted to it, who thus became acquainted with every man, his habits and constitution.

Lieutenant-Colonel J. Kotchen,  
Royal Artillery.

As far as I have seen, late changes have all been in the wrong direction. The doctor, like everybody else in camp or barracks, should be under the commanding officer, and his not being so has hurt discipline.

He should be a component part of a battery. He never was interfered with in his prescriptions for the sick; and that should be the only point in which he could claim exemption from interference.

In three months under the present system, I have had three different medical officers in medical charge of my battery; and on one occasion of relief between two of them they never even saw each other, one went before the other came, although at the time there were many sick. No explanation of cases took place! They certainly have no interest of the old kind in a battery, and the commanding officer has almost nothing to say to them. They make their own arrangements, and are responsible to their own superiors only. There is one marked exception to this rule. The battery commanding officer is now made responsible for all the medical officer's errors of account. Although he (the commanding officer) actually knows nothing about them, they are always submitted under the signature of the medical officer; and by present rules the commanding officer must pay to the medical officer the amount he claims each month on his hospital pay list. *But* if the medical officer is removed, say to England, and an error in *his* pay list be discovered by the pay department, the money is demanded from the battery commanding officer! And then he is required to recover it from the medical officer.

(The artillery divisional prison accounts are also in like manner thrown upon a battery commanding officer, although he has no possible way of knowing whether they are correct or not.)

These are not mere formal responsibilities. At this moment I am out of pocket by a medical officer's error of account; and after two years' tedious correspondence, I have within the last few weeks recovered a retrenchment against the Peshawar *Divisional* Prison Fund Account, for which I was in no way responsible; but these accounts are ordered to be submitted through *some* battery pay list, and with the above unfair result! These accounts should not pass through a battery commanding officer at all; they should be submitted direct to the pay department, by the properly responsible officers.)

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I understand that practically the regimental system is still in force, inasmuch that the one or more medical officers attached to a corps have their separate regimental work in distinct hospitals and wards, but with the disadvantage that they are liable to be sent away on any call when the surgeon-general is obliged by paucity of officers to equalize the establishments, and that the corps they are attached to feel the tie is only a temporary one, and the officers themselves have little interest, beyond the professional honor of doing their duty.

Major H. C. Lewes, Commanding 1 Battery 1st Brigade, Royal Artillery.

The interior economy of the system is of course best known to the doctors themselves. I can only say that the system itself has many abusers in the army, both amongst the medical profession and outsiders; and hence I conclude the results are not eminently satisfactory. I do not pretend to say what are its weak points, if there are any. What I had chiefly to find fault with was the doolies were too heavy for the men who had to carry them, or the men were not properly trained. The carriage was bad and insufficient as a rule. I heard complaints of want of drugs; and it is a common wish in the army that the old system could be readopted, and medical officers once more become regimental.

The arrangements of base and field hospitals appeared organized on a sound basis; but the medical officers did not appear to have sufficient means at their disposal. Had there been any severe fighting, I am quite sure the means were inadequate, both as regards conveyance, stores, and hands.

Major E. T. Hume, Commanding C Battery C Brigade, Royal Horse Artillery.

I consider that it has proved a failure.

Major W. W. Murdoch, Commanding E-A, Royal Horse Artillery.

The medical system as at present worked in India may be economical; but it is unpopular with every one concerned, and as far as I can judge does not work well.

It must be bad when medical officers have to be so continually sent from place to place in ordinary peace time.

Not having been in Afghanistan, I cannot say how it worked there.

Major T. M. Hazelrigg, Commanding E-3rd, Royal Artillery.

In cantonments, as far as I know, sick are always treated in regimental hospitals, which system cannot be improved upon. In Afghanistan men, if kept in regimental hospitals, drew rations, so that all but the most trivial cases were sent for treatment to the field hospitals. I did not like the system; but I do not see how it could be improved upon without adding largely to regimental baggage.

Major the Hon'ble A. Stewart, Commanding 1-C, Royal Horse Artillery.

It was extravagant, as far as the artillery was concerned. The surgeon in charge of a battery had no medicine to treat even ordinary trivial cases of sickness, and was obliged to send them to the base hospital, where they were under doctors who did not know them or their constitutions, and who were probably hardworked, whilst the battery

surgeon had nothing to do after the morning attendance of those sick.

It might have been different if we had been moving instead of being nearly stationary; but I think the old system more suitable for the English army, and it was *far* more popular with all ranks, *surgeons included*.

Of course, base hospitals would also be necessary as well as regimental when upon service in the field.

Major C. F. Nairne, Royal Horse Artillery.

Nothing could be better or more liberal than the regimental system as practised in India, and, as far as I saw the base and field hospitals, worked well during the late operations.

As a matter of economy, general hospitals must be better for cantonments; but it is absolutely necessary, both in justice to the men and as a true economy in preventing malingering or shirking, that one medical officer should remain with each corps.

Major P. Fitzgerald Gallwey, Royal Artillery.

Without pretending to know much of the matter, I may say that, from all I have seen and heard, the general hospital system is the only one which can hold for service, and seemed to work well in the last campaign.

Major W. H. Noble, Royal Artillery.

See answer to question 9.

Major W. B. C. Brough, Royal Artillery.

In this country at no station that I have yet served at has the central or general hospital system been in force. Barracks are necessarily scattered; and, from the exposure the sick might have to undergo, and the sudden course of many diseases, I think the system unsuited to the mass of Indian stations. Under the present medical system, an officer of the department is permanently attached to each regiment, who can see to everything being ready for any emergency likely to arise, and who will (that immense benefit to the service) know something of the men. A battery of artillery, though often nearly as strong, is in a measure left to chance. In my own battery some 500 human beings during the recent outbreak of cholera, and when in cholera camp, had their medical officer taken away for duty elsewhere (he was supposed to have joined the battery permanently after a succession of five different medical officers in six months). Fresh cases occurred, and the battery was ordered, and did march, to a camp of then healthy men for the sake of medical attendance. I cannot speak in praise of a system which has apparently left the medical department inefficient from short-handedness. I had not the honor to be present during the recent operations in Afghanistan.

Captain A. D. Anderson, Royal Artillery.

(19, 20.) I believe the field hospitals as compared with the regimental system to be the better of the two, as likely to allow of smaller establishments and followers being taken into the field, to admit of more control over the working of the medical arrangements, and to free the troops themselves from a portion of what I call necessary impediment. All that the fighting line requires are dandies sufficient to carry 2 or 3 per cent., for a day's march or to the field hospital, and their proportion of stretchers to carry men out of action, with a junior medical officer or apothecary to administer the most every-day requirements of medicine, &c., serious cases being moved at once to the field hospital. I would, therefore, attach to each battery one apothecary, giving him a proportion of medicines (to break up into three parts with the different divisions of the battery when separated) and one tent, all packed on ponies or mules. *The blot* in medical arrangements in India, I submit with all deference, is the doolie. It was a necessary evil of countries without roads. No other country in the world uses it; and in India though roads, railways, and wheeled carriages have nigh driven it out of the field, still the military stick tenaciously to it. Its accompaniment too, eight bearers to carry one sick man requiring to be fed, guarded, very often themselves doctored and carried, render the system on the line of march an encumbrance of the greatest magnitude. There was nothing on the whole road from Sukkur to Khelat-i-Ghilzai to have prevented any ordinary spring cart ambulance from accompanying the troops. The saving in cost would have been great, while the gain of efficiency by reducing followers and facilitating transport would have been still greater. It struck me also as an outsider that the percentage of sick for whom carriage was provided must have been unnecessarily large; for doolies and dandies were found spare and utilized for all sorts of purposes, while, when filled with sick, the occupants were chiefly followers.

Captain G. C. Bayley, 13.8th, Royal Artillery.

I am inclined to uphold the unification system; but I think it might be improved by permanently (or for a given term of years) attaching one medical officer to each regiment. If the two medical services, British and Indian, could be placed under one head in every station,

brigade, district, or division (in the same way as all the troops, whether British or Native, are subject to the same authority, *i.e.*, that of the general or other officer commanding), a further improvement might be effected. Of course, I am not speaking of medical officers holding civil charges. I also think that, on the outbreak of a war, a depôt for medicines, surgical appliances, &c., should be *at once* formed at the base of operations, from which all the hospitals of the troops employed on that particular expedition might be supplied.

20. State your views as to the efficiency of the arrangements in cantonments and on field service for the transport of the sick both in *personnel* and *matériel*.

Brigadier-General C. G. Arbuthnot, Inspector-General, Royal Artillery for India.

The system of transport for the sick in cantonments must depend to a great extent on the hospital system. With regimental hospitals the doolie is perhaps the best; but with general hospitals one or more ambulances would probably answer better, supplemented however by a few regimental doolies for the immediate conveyance of urgent cases. On field service doolies should be reduced to a minimum; and there should be ambulances, camel *kajacahs*, and mule litters, varying in proportion according to the nature of the country.

Colonel A. H. Murray, Deputy Adjutant-General, Royal Artillery in India.

I have not sufficient experience to venture an opinion on this subject.

Colonel C. R. O. Evans, Commanding Royal Artillery, Meerut Division.

I think the present arrangements admirably suited to the country and its capabilities.

Lieutenant-Colonel J. Ketchen, Royal Artillery.

In cantonments efficient. On field service, as far as my experience (very little) goes, efficient also.

Major Bertie Hobart, Royal Artillery, Military Secretary to His Grace the Governor of Madras.

I think the arrangements for the transport of sick in cantonments are not susceptible of change in view of safe economy. There must always be some transport present with every corps on a parade away from barracks; and it is a question of expense and the nature of the country whether doolies or hospital carts with bullocks are the better. The same reasons must govern the description of ambulance on field service. There must, too, be means of giving sick men air and change in the evenings; and for very serious cases doolies are absolutely necessary, just as they are on service.

The question of doolie-bearers is becoming serious, and must be faced, if the experience in this presidency of the impossibility of making up an establishment on an emergency is to be of any use. Travelling by *palki* having become almost extinct in most parts of India owing to the improvement of country roads and the introduction of railways, trained bearers can rarely be enlisted. To reduce the ordinary establishment of bearers would be fatal. A reserve of trained men whose services could be utilized in camp and cantonment in other ways would be more to the point. The caste-bearers are, to my experience, and as I have always heard, about the most honest hard-workers in the country in each presidency, and are worth their pay.

I do not see that the material now in use, as the result of many years' experience, can be improved for cantonment service, *viz.*, hospital carts and doolies. Out of many proposals for the improvement of the latter for field service, probably one to lighten it, with due regard to protection from heat and rain, and the necessity of its having feet, so that it can be put down with a patient in it or act as a bed if required, may well be adopted.

Yes; I think it would be more efficient were a proportion of the spare horses of cavalry regiments and batteries kept together in a depôt on field service; though I doubt much direct economy, and I doubt any indirect economy, as the horses are not likely to be so well cared for; but it will often be a relief to a corps not to have unnecessary horses and followers present, and there will not be the same commissariat demand for gram, &c., in the front.

I would recommend, however, that such a depôt should be an aggregation of regimental depôts which could be easily separated, and that any equalization of such depôts or transfer from one to the other should only be done by order of superior authorities, *viz.*, the general of cavalry and the colonel commanding the artillery.

Major H. C. Lowes, Commanding I Battery 1st Brigade, Royal Artillery.

The arrangements in cantonments seem to meet the case. It is on service where the difficulty is met. In the Bombay presidency there seem to be but few doolie-bearers; and in the last expedition those sent were inexperienced and unfit for the work. Ambulance wagons, such as those given in cantonments, could not have travelled. I am told they are unsatisfactory; the bullocks given to draw them are too small; they get along with great difficulty, and jolt and tire the occupants much.

Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

I consider that the arrangements are the best possible both in cantonments and in the field.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse Artil-  
lery.

The present arrangements in cantonments for the transport of the sick are good and efficient.

Never having been on field service, I prefer to leave suggestions on this head to be made by those that have.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

In cantonments arrangements suffice; in the field ambulance carts might be used for slight cases; though I imagine that, taking into consideration cost of horses, harness and carts, and pay of drivers, they would be more expensive than doolies and dandies, and probably not so comfortable for the sick.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

New means of transport are much required. The enormous force of doolie-bearers (when doolies are the only means of transport) would cripple the movements of an army anywhere.

Surely suitable spring-vans, with light moveable covering, could be introduced, at any rate for a large proportion of the sick and wounded. In Afghanistan I weighed the clothes of the Native followers given them *in addition to their own clothes*. They weighed 17 lbs. Each man's *lota* and cooking things weighed at least 4 lbs. more. We met empty doolies returning to bring up sick between the Khyber and Dakka *in the month of June*. These men's bundles filled the doolies. There were six bearers to each, so that they were carrying at least 126 lbs. (or 1 cwt. 14 lbs.) in addition to the weight of the doolie, besides the clothes they were wearing, and I suppose their food also.

Major C. F. Nairne, Royal Horse  
Artillery.

In cantonments the transport of sick is simple, and is done in the most economical manner; while on service, so long as doolie-bearers can be procured, I cannot think there could be a more efficient method devised. When the time arrives that doolie-bearers shall be no longer procurable, mule ambulances should be substituted for service in the hills, wheeled carts in the plains; but nothing will ever do so well as the doolie for a wounded man. The supply of the material should be carried on by the transport train, which I hope will be introduced.

Major P. Fitzgerald Gallwey,  
Royal Artillery.

With the varied conditions of service for Indian armies, I don't think it would be possible to substitute any other system of transport for the sick for the present doolie carriage; but I think the number of these articles and the number of kahars allowed (certainly at the commencement) in the late campaign were excessive; and throughout the operations the kahars were much more employed in other duties (coolie work in fact) than in their own.

Major W. H. Noble, Royal Ar-  
tillery.

See answer to question 9.

Major W. R. C. Brongh, Royal  
Artillery.

The arrangements for transport of sick in cantonments appears most efficient; and I cannot suggest a better conveyance than the doolie and kahars. But all the present moveable column kahars are not necessary; and a regimental establishment under the medical officer, and which the commanding officer would have full authority to increase or decrease on his recommendation, would perhaps be much less costly and equally efficient, making a species of hospital service corps for India. In war time for the conveyance of convalescents to the base hospitals mule or camel litters would be useful; but the want of roads bars the employment of wheeled carriage for this purpose. For actual field-work doolies and bearers cannot, I do think, be improved on; but for service across the frontier, hill bearers might be employed. These men would, if suitably clad, probably stand the exposure and cold well.

Captain A. D. Anderson, Royal  
Artillery.

See answer to question 19.

Captain G. C. Bayley, 13-  
Royal Artillery.

The present arrangements appear to be fairly efficient, but I think some improvement might be made in the following ways—

(a) by having one standard pattern doolie for all India.

(b) by substituting ambulance wagons drawn by horses or mules for doolies wherever practicable. At present the conveyance of seven sick or wounded men requires seven doolies and 42 doolie-bearers; but the work could be done by one ambulance wagon drawn by two animals, and with one driver and one other attendant. Now two horses or mules and two Natives would, I should think, be far cheaper than 42 doolie-bearers. The ambulance would take up far less space along a road than seven doolies would. At the same time, I am quite aware that doolies could not be entirely replaced by ambulances, there being many places where a doolie could go and a wheeled carriage could not.



21. Do you not consider that in field service it would be both more efficient and economical if there were with each division a troop or depôt of spare horses for cavalry and artillery, instead of each cavalry regiment or battery of artillery having a large number of spare horses attached ?

Colonel A. H. Murray, Deputy  
Adjutant-General, Royal Artillery  
in India.

No; see correspondence attached, marked A.

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A

No. 2504K., dated Simla, 22nd May 1879.

From—COLONEL H. K. BURNE, C.B., Secretary to the Govt. of India, Military Department,  
To—The Adjutant-General in India.

With reference to your letter No. 3219, "R. A. in India," dated the 12th April 1879, and previous correspondence, I am directed to request that, under the orders of His Excellency the Commander-in-Chief, the question may be considered whether, in lieu of having a large proportion of spare horses with batteries and regiments, it might not be more expedient, in future military operations, to limit the number of spare horses with corps and to have a small remount troop or depôt with an army in the field, which could feed the cavalry and artillery as circumstances required, this depôt being either with the field force or in the line of communication, and moving forward as the troops advanced.

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No. 5111, dated Simla, 31st May 1879.

Memo. from—COLONEL A. H. MURRAY, Deputy Adjutant-General, Royal Artillery in India,  
To—The Adjutant-General in India.

Forwarded for favor of disposal as a general question.

2. As regards the royal artillery, it is absolutely necessary that the number of spare horses at present allowed should at all times remain with batteries for the following reasons:—

- (a) It frequently happens on the march that the services of every available horse are required on an emergency at a moment's notice, for increasing the draught power in difficult places, replacing animals tired out, or injured, &c., &c.; if therefore the spare horses were kept with the remount troops, which would necessarily be in the rear, they would not be available at the very time they were most needed.
- (b) It has been found during the recent campaign that the present number of spare horses is not sufficient.
- (c) It is desirable that the spare horses should be under the care and control of the regimental officers for whose use they are intended, and who are responsible that their batteries are at all times efficient in every particular.
- (d) It is the custom throughout the British army for the spare horses to remain with corps, and it would appear desirable, instead of allotting them to remount troops, to "decentralize" as much as possible, so as to render each unit complete in itself.

3. Under these circumstances, undersigned sees no advantage in the proposed change, but is on the contrary of opinion that the efficiency of batteries would be seriously affected thereby, and Government would be put to the expense of a special establishment of officers, &c., to carry out duties now performed regimentally.

Colonel C. R. O. Evans, Com-  
manding Royal Artillery, Meerut  
Division.

I do not advocate this change.

In conclusion on this paper, I would beg to state that I am not at all prepared to admit that the cost of the British army in India, considering its paramount importance, is, when compared with other departments in this country, in any way extravagant; while, on the other hand, I cannot attempt to defend the system by which I see a Native regiment officered by five field officers, one captain and one subaltern, as being otherwise than extravagant.

Colonel H. Strover, Commanding  
Royal Artillery, Thayetmyo.

I consider that it would be very much better in every way if the horses were kept up to their proper work; that they should be in a troop or depôt for spare horses away from the regiments or batteries.

Colonel A. C. Johnson, Royal  
Horse Artillery.

Certainly not. As spare horses may be required at a moment's notice to replace casualties in action or from accidents on the march, their place is with the battery; elsewhere they would be useless except as a reserve. The number of spare horses with a battery is by no means excessive.

Lieutenant-Colonel J. Taylor,  
Commanding Royal Artillery, My-  
sore Division.

No; I think that the number of spare horses allowed to a battery should always remain with it. They are thus on the spot to supply casualties as they occur; moreover, if the marching should be continuous and severe, you can relieve horses on the first signs of over-fatigue, collar-galls, &c. During the mutinies the battery I served was considerably over its strength in horses, and yet we found use for them all, and would have found ourselves crippled without them.

Lieutenant-Colonel J. Ketchen,  
Royal Artillery.

No.—It would not be so efficient or so satisfactory as the present plan, nor do I think it would be even as cheap.

Major H. C. Lewes, Commanding  
I Battery 1st Brigade, Royal Artillery.

Speaking for myself, I should very much prefer having my own spare horses to look after. A reserve of spare horses over and above the recognized number attached to regiments and batteries would undoubtedly be a good thing.

Major E. T. Hume, Commanding  
C Battery C Brigade, Royal Horse  
Artillery.

No; I certainly do not consider that such an arrangement would conduce to either greater efficiency or economy.

Major W. W. Murdoch, Com-  
manding E-A, Royal Horse Artillery.

Yes; I think it would be both more economical and efficient for there to be a depôt of spare horses, but they must be trained horses, or they would be little or no good.

Major T. M. Hazelrigg, Com-  
manding E-3rd, Royal Artillery.

No.—The system might work in cavalry; though I should fancy horses would not be so well looked after.

It certainly would not work in artillery, where capabilities of every horse ought to be thoroughly known. Many a bad gall is saved by taking horses out of draught as soon as possible after a rub is observed, and this could not be done unless spare horses were close up to the battery.

Batteries ought to have spare horses without harness, as well as spare horses with harness.

Major the Hon'ble A. Stewart,  
Commanding I-C, Royal Horse  
Artillery.

The extra spare horses do hamper a battery, but, if detached, they should have one Native to each of them, and a trustworthy non-commissioned officer of the regiment or battery for every 25 to 30 horses; and although all spare horses of the division might be kept together, under one officer, with farrier, shoeing-smith, &c., still they should belong to the battery or regiment upon whose strength they would be borne to supply casualties. I do not think a general service depôt would answer, and I question their remaining spare long. What general officer (short of carriage, &c.) would allow, say, one hundred spare horses to remain idle and eating up his supplies daily?

This seems a suitable place to insert a question, which I do not know if the Commission would deem worthy of consideration.

Would it be possible to pay a retaining-fee to Europeans and Natives for Government to have the call of their horses at a valuation or for hire, under certain conditions, such as these—

(1) the horse to be passed by a committee as fit for service with artillery or cavalry;

(2) his descriptive roll to be made out; age, &c., determined;

(3) to be attached for muster to a regiment or battery;

(4) to be mustered monthly or quarterly;

(5) to obtain the retaining-fee at the end of each year upon certificate of commanding officer of regiment to which he was attached for muster, that he was sound and sufficiently well fed to be fit for the service if required at a moment's notice?

I think a similar arrangement might be made for transport animals.

Major C. F. Nairne, Royal Horse  
Artillery.

I do not.

The troops or depôts suggested will require additional officers and men not compatible with the economy so freely urged in this paper. Where will spare horses be so well looked after as by those whose chief interest it is to keep them efficient, *viz.*, those who will have to use them? I can see no single advantage in the plan proposed, except a saving of trouble to commanding officers and men of regiments and batteries. Being on leave, I have not gone into detail so much as I could had I had my books of reference around me.

It is perhaps out of the province of this paper to remark that I consider the very liberal free provision of rations made for Native troops and followers during the recent operations unnecessary.

I believe their sense of gratitude (if they have it at all) would have been as much excited if food had been provided at the usual current rate obtainable in the bazaars of India.

The late gift must have been an enormous expense to the State, and was, I believe, an excess of generosity which costs more and is less appreciated than a direct gift like *batta* for instance.

Major P. Fitzgerald Gallway,  
Royal Artillery.

No.—I prefer to see the horses looked after by their own regiments and batteries. A separate depôt would entail an establishment. Moreover, as far as the artillery is concerned, I look upon the number of spare horses allowed on service as excessive, especially in a country like Afghanistan, where field artillery can only be employed very partially as compared with mountain batteries.

Major W. H. Noble, Royal  
Artillery.

Certainly not for artillery.

The spare horses of a battery are required to be upon the spot in case of emergencies, and, moreover, would probably not be so well looked after if they were away from the battery.

Major W. B. C. Brough, Royal Artillery.

Yes, decidedly, if the horses are trained ones; otherwise it would be better to follow the present clumsy and expensive plan of sending unbroken horses to their batteries and let the breaking go on before their services are actually required. I would, on war breaking out, increase the strength of each battery in the front division of the army for service by, say, 5 per cent. of trained horses. A moderate depôt would then suffice with the division; for the increase to the battery would enable relief to be given to a horse on becoming sickly or weak till restored to strength. An immense number of horses renders a battery troublesome to move and difficult to feed; and, as seen in so many cases lately, the extra horses may never be required.

Captain W. Law, Commanding C-2nd, Royal Artillery.

I am not aware that regiments of cavalry have any spare horses attached on service. For batteries of artillery they are absolutely necessary, whether there is a divisional reserve or not. Extra horses must frequently be hooked in and must be with their battery, and there must be horses to replace casualties in teams in the field at once. There should be a reserve for each army-corps or division, but not with the division. The front depôt would in my opinion be the best place for it.

Captain A. D. Anderson, Royal Artillery.

Batteries of artillery could never afford to go into the field without their spare horses. We all know that if a horse gets in any way tender on his shoulder, back, legs, &c., sparing him from work for a few days may save him (this has to be done every day in batteries of artillery), while continuance at work generally ends in a break-down. The experiences of the batteries on the Kandahar Column will amply bear out that without their spare horses they would constantly have required to drop carriages. Had the horse artillery battery on that line been required to make a forced march beyond Khelat-i-Ghilzai, it could not have done so, in spite of all the spare horses they had, owing to general weakness in condition; and no fresh supply could have reached them under two months from that time. That a depôt of spare horses to replace casualties would be an advantage, at the base of operations, to be forwarded on with spare men as required, there can be no doubt. Four months from their start the horse artillery had lost 20 horses, the field batteries; 12 to 15 per battery; but this should not be done at the cost of the establishment of spare horses in battery charge.

In conclusion, I take the liberty of noting a few points that struck me on the march to and from Khelat-i-Ghilzai. One of the last officers at work was the superintendent of the line of communications. I submit he should be the first, with his staff laid down beforehand, to be filled up as rapidly as possible and prepared to endeavour to keep pace with the advance, in road-making, formation of depôts, sanitation of camps, and the numberless duties that fall to his lot.

I believe it would be advisable to select a senior officer, second only to the general officer commanding the force. Anyhow, give him full authority on the line of communications, and place at first a regiment (Native cavalry for choice) at his disposal, to be spread out and extended as the line lengthened, for general protection and military duties, and to be added to from the base as required.

The wear and tear to all, had a road been constructed at first on the Kandahar line, would have been sensibly lessened, while, as it was, each detachment found the road worse than its predecessor had. Every possible arrangement in rear of the advancing main body should, if possible, be left to the officer in charge of the communications, whose duty it would be to supply camp grounds with tradesmen from the locality or from the rear, to fix the *nerick*, to arrange for water-supply by local labor, to attend to sanitary arrangements, to carry out in fact all that he deemed requisite for the safety and comfort of those ahead and those coming on.

The sanitation of camps, I submit, should be part of the line of communications, thus enabling troops to march with the smallest possible establishments of sweepers, *bildars*, &c., and would, I think, lead to its being better done. An organized establishment of this sort on the line of communication, let it be ever so drawn out, would, I believe, put a stop to what one constantly saw,—officers in their anxiety to get to the front, leaving before properly relieved, making over order books, &c., to any one who would take them; transport officers making over four bare walls and a table and chair, as the assistance to be given to another relieving them of the charge of 40 to 50,000 camels or pack animals; by all of which the good of the service must suffer.

In short, the work done under General Phayre's superintendence should have been commenced and with a will at the outset of the movement.

There is yet another point where power was lost and labor wasted—supplies. It was evident to all that barley, bhoosa, firewood, and in

many places flour poured in in abundance at almost every camp ground on the arrival of troops, and that at places where depôts were fixed, as Dadur, Quetta, Gulistan Karez, Chaman and several smaller stations, in fact wherever a Government official with authority to buy was posted, large stores of these supplies were accumulated; still at intermediate points, especially through the Bolan Pass, nothing was to be found and everything had to be carried. A political officer informed me that, had the order been given in time, ample supplies could have been collected at each end of the Bolan Pass, and a very moderate-sized pony or mule train could have dispersed them at the different stations in the pass. What actually happened was this: supplies were plentiful enough at Dadur, but virtually none for the next eight marches to Quetta. Each unit on arrival at Dadur with its full complement of carriage was ordered to indent on the transport for carriage for eight days' supplies, amounting, in the case of one heavy battery, with its escort and followers, to 300 camels. These animals were laden with barley, flour, bhoosa, kirby, and wood. The whole of the last three things were either eaten or wasted in the first three or four days, and a large proportion of the extra carriage camels died before reaching Quetta from neglect and starvation. Exactly the same occurred from Gulistan Karez through the Gwaja Pass, and one could not help the feeling that it seemed a pity officers could not be despatched in advance in our own territory, and with the advanced force if across the frontier, to sweep together the resources of the country, and by a little preparation save all this labor and waste of transport power.

I take the liberty of attaching a paper\* from Captain R. Wace, Royal Artillery, Commanding No. 2 Bombay Mountain Battery, bearing entirely on the organization of the two Bombay mountain batteries. The subject is an important one and deserving of attention, for these two batteries are the only ones in India that approach the German plan of having four guns ready with power of increasing to six. Unfortunately for them, however, the six guns are given them with ammunition, &c., but no men or power to increase number of mules or ponies on outbreak of war; they therefore go on service with four guns, leaving the other two in store or arsenal.

Captain Wace has, I think, treated the subject in a sound and practical way, advocating full establishments of men, with mules for four guns in peace time, and I feel assured that his scheme of some modification of it might, with advantage to the service, as well as economy to the State, be introduced, not only for all the other mountain batteries, but for the whole force of artillery.

Captain Wace's scheme shews an increase of expenditure for the Bombay mountain batteries (but they are admitted to be almost inefficient as regards their establishment); this would be more than counterbalanced by the saving created by putting other mountain batteries on a 4-gun footing in peace time. They now have six.

Decidedly so, *provided, and only provided*, that this depôt of spare horses was sufficiently large and was certain to be forthcoming, say, shortly after the commencement of a war. I fear, however, that it would not be forthcoming in time. But in any case there must be some spare horses with every mounted corps. If the proposed horse depôt were formed, it might relieve mounted corps of the care of sick or lame horses which might be transferred to it from time to time, either in exchange for serviceable animals or not, as the case might be. See Wolseley's *Soldier's Pocket-book* for further details on this subject.

## E.

### SAPPERS AND MINERS, ROYAL ENGINEERS IN INDIA, MILITARY WORKS, &c.

1. Is the present organization of the corps of sappers and miners in your presidency such as to meet the requirements of peace and war?

Major-General F. R. Maunsell,\*  
C.B., R.E.

I do not think that the Bengal sappers are adequate to the duties expected of them, and for which they should be efficient, even in peace, much less for war.

Major-General A. Fraser, R.E.

The present organization of the corps of sappers and miners is not such as *best* to meet the requirements of peace and war, except as regards the class of Natives recruited.

Colonel H. N. D. Prendergast,  
R.E., Commandant, "Queen's Own"  
Sappers and Miners, Madras.

It does not thoroughly meet the requirements of peace and war.

Colonel the Hon'ble C. J. Merriam,  
R.E., C.S.I., Acting Secretary  
to the Government of Bombay,  
Public Works Department.

I should say most certainly not.

\* These answers are supplementary to those of Captain North, R.E.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

Decidedly not so.

In October 1870 a new organization was given to the corps of Bombay sappers and miners in G. G. O. No. 692 of 1870.

In this it was distinctly laid down that all the officers, of whom there were to be ten, were to be royal engineer officers. This has not as yet (nine years afterwards) been carried out, and staff corps officers are still attached.

In 1873 a still more extraordinary G. G. O. (No. 1235-51E.-G. of 1871) appeared, in which it was stated that only three royal engineer officers were to be employed on military duty. The effect of this was that in 1872, when some officers wished to remain with the corps, making the number up to five in place of ten, two were taken away on application of the Secretary, Public Works Department, who pointed out this G. G. O., thus leaving only three royal engineer officers with the corps. But it may be added that the organization of the G. G. O. of October 1870 is of itself most insufficient, and that it by no means supplies the wants of the corps, which has been reduced in numerical strength far below all efficiency. It has no equipment of any sort, and even all tools and plant were by circular No. 222 of 10th January 1877 taken away, except barely company entrenching tools. All plant for educational purposes, as scaling ladders, mining cases, pontoons, rafts, &c., were by this circular abolished, and the corps reduced to a skeleton pioneer battalion.

\* Tables I to VIII, marked R, will give a small idea of what is required of purely training plant; while paper II, marked S, will give a detail of what is required to make the corps efficient even for peace.

I am quite unable to give the reasons why such heavy retrenchments were introduced into the Bombay corps which was even then the smallest numerically, and which had been proved to be numerically inefficient for war; for in Persia and Abyssinia the Bombay companies had to be supplemented by companies from the Madras corps, out of which presidency no other troops were sent. These companies, it must be mentioned, spoke a different language and possessed a totally different organization.

The starved condition of the Bombay corps will, I trust, receive the special attention of the Committee.

There are only five companies with but 80 privates in each: of these, one is practically a depôt and recruit company. There are no pontoons, no train, no telegraph, not a wagon nor a horse, nor are there any tools or plant for training purposes. As regards men, a copy of letter No. 995A. of 1879, just forwarded to the Adjutant General, will give an idea of the condition to which the corps at head-quarters is reduced after sending merely two companies on service.

Finally, though organized on the model of the Bengal sappers, the training staff has been cut down far below the practical limit of efficiency. In Bengal there are four staff and four assistant staff officers; these were reduced in Bombay to two staff and two assistant staff. It is absolutely necessary, in order to carry on work properly, to have at least three staff and two assistant instructors.

The above does not include the instructor of army signalling, &c., as he is detached at present, and has special duties not wholly connected with the corps proper, but usually with the army.

Extract from the Proceedings of the Government of India, in the Public Works Department,  
No. 1235-51 E. G., dated Simla, 28th October 1871.

READ again—

From Secretary of State, No. 35 of 19th March 1868, and enclosures.	
To Military Department, No. 139 E. G., dated 21st January 1870.	
From " " " 50	" 3rd May 1870.
To " " " 699 E. G.,	" 14th June 1870.
From " " " 606	" 29th June 1870.
From " " " 1255	" 30th January 1871.

OBSERVATIONS.—To give effect to the conclusions arrived at in these papers, the Governor General in Council in this department considers the following arrangements will be necessary.

1. To inform the Governments of Madras and Bombay that henceforth the proportions of the royal engineer officers assigned to those presidencies for all duties will be one battalion each, leaving for the provinces under the Government of India five battalions.

The distribution of any future increase, and in excess of the normal strength of the seven battalions of the old Indian establishment, will be made in the same general proportion, subject to any revisions that from time to time circumstances may show to be suitable.

2. That the proportion of royal engineer officers for military duty in the several presidencies will be as stated by the Military Department, *viz.*, seventeen for Bengal, five in Madras and three in Bombay.

3. That the rules under which officers will do duty with the sappers and miners on first coming to India will be determined in the Military Department.

4. That the proportion of officers for the survey and telegraph departments may provisionally be taken at their present numbers, *viz.*, 23 and 5, respectively.

5. That, as a rule, all other officers will be considered available for duty in the Public Works Department, subject to the conditions (1) that their services have in the first place been made over to the Public Works Department; and (2) they will be liable to be recalled to military duty at any time on requirement by the Military Department.

6. That royal engineer officers will continue to obtain leave to Europe and in India in all respects as heretofore, but that in all cases in which they give up their appointments on taking leave, or by absence beyond the limit of time during which their appointments can be retained, a report shall be made to the Government of India, in the Public Works Department, of the fact, and state by the Government or Administration under which the officer was serving, or by which the leave was given.

7. That officers returning from leave who have lost their appointments as aforesaid shall be held to be at the disposal of the Government of India, and that if the Government or Administration under which such officer was before serving desires to obtain his service again on his return to duty, an application to that effect should be made to the Government of India, in the Public Works Department, before such return.

8. That the distribution of the proportion of royal engineer officers to the several provinces will be made as far as possible so as to preserve the proportion of the ranks given by the regimental organization, and to interfere as little as possible with the employment of the officers of the old Indian battalion within the presidencies to which they were attached under the old organization.

9. That the lists of officers of the royal engineers of the old Indian establishment should henceforth appear in the Indian Army Lists in the form adopted for the cadres of the old Indian army, but that some distinction should be made to show the officers serving in the presidency and those serving elsewhere; also, that the effective lists of royal engineer officers in the Army List should only contain the royal engineer officers actually at the disposal of the Local Government, or the Government of India in the case of the Bengal Army List, including those on leave who have not forfeited their appointments. All royal engineers, not specially posted to a province, to appear as under the Government of India.

10. That for purposes of discipline, only all royal engineer officers under the Governments of Madras and Bombay should be held to be under the orders of the Commander-in-Chief of those presidencies, and all others under the orders of the Commander-in-Chief in India.

As regards promotion and pension, and other like matters, the present orders will make no changes.

11. That royal engineer officers, returning to India from England, will receive orders from the Secretary of State as to the port to which they should go to report themselves for duty.

12. That the Secretary of State be informed, from time to time, of the strength of the officers in the several presidencies, and advised as to the numbers of the several ranks wanting to complete the proper proportion allowed to each, and be requested so to issue his orders to officers returning to India, and so to distribute the officers coming to India, for the first time as to adjust the proper proportions as nearly as may be, reasonable attention being given to any claim made by the officers of the old Indian battalions to return to their former presidencies.

13. That the Government of India will not in any way interfere with the distribution of the officers assigned for duty under the Governments of Madras and Bombay, and will only so far control the distribution of the officers in other provinces as is now customary in respect to Public Works officers generally.

14. That, as a rule, all applications for the services of royal engineer officers serving in India for duties other than purely military duties, which will be dealt with exclusively in the Military Department, should be made to, and dealt with by, the Government of India, in the Public Works Department; this rule will still apply, and the Public Works Department will make any needful reference to the Military Department for the purpose of making the officers available to the department that has need of his services. The same rule should be observed by the Governments of Madras and Bombay so far as it becomes applicable.

15. That all departments other than the Military Department, obtaining the services of royal engineer officers, shall comply with the rules thus laid down, so far as they are applicable, and that the Military Department be requested to keep the Public Works Department informed of the number of officers, &c., doing military duty, or not specially placed under any other department in the several presidencies, and of the dates of departure on, and return from, leave of such officer, so that the registers in the Public Works Department may be as complete as possible.

16. That hereafter all orders relating to the subject referred to above will issue from the Public Works Department, including orders for transfer from one presidency or province to another.

Military Department.  
Home " "  
Foreign " "  
Governments of Madras, Bombay, Bengal, North-  
Western Provinces, and the Punjab.  
Chief Commissioners, British Burma, Oudh, Central  
Provinces, Mysore and Coorg.  
Resident at Hyderabad.  
Agents to the Governor-General for Central India and  
Rajpootana.  
Superintendent of Port Blair.

ORDER.—Ordered, that copies of this Resolution be forwarded to the Departments, Governments, and Administrations marginally noted; and to the Director General of Telegraphs for information and guidance.

No. 995A., dated Kirkee, 17th September 1879.

From—The Officer Commanding Sappers and Miners,

To—The Station Staff Officer, Kirkee.

I have the honor to bring to your notice the fact that, after the departure of the torpedo company for sub-marine mining practice at Bombay and Kurrachee, there will be considerable difficulty in carrying out the duties of the corps of sappers and miners (guards, line takeedars, &c.)

On the departure of the torpedo company, the number of privates of the corps for duty will be 23, exclusive of 41 recruits, who will not be fit for transfer to the ranks until April 1880.

Of the 22 privates there are—

4 lance naiks (1 permanent store orderly);

1 armourer (permanent duty).

The number of privates required for daily duty, if reduced to the lowest possible, is as may be seen from the accompanying table 15; and allowing for 2 men permanently employed, sick, &c., it will be seen that nearly all the privates of the corps be on duty daily; also, there will not be a single man available for workshops, &c.

I feel it my duty, again, most respectfully to bring to the notice of His Excellency the impoverished state of the corps as regards men. The company at Aden has only 45 privates instead of 80. There has been a good number of deaths among the men in the companies on service, and, as above shown, the company at head-quarters will be reduced on the departure of the torpedo company to such a state, that it will not be able to carry out the guard duties, &c., or to provide a single man for duty in the corps workshops.

I would further beg to point out that there will not be sufficient men to protect the lines with the families of those who are on service, both Native and European, were such a step rendered necessary.

Under the above circumstances, I trust that His Excellency the Commander-in-Chief will be pleased to approve of the torpedo company being detained until the return of some of the companies from field service.

HER MAJESTY'S BOMBAY SAPPERS AND MINERS.

*Table showing the details of guards, &c.*

Description.	Privates.	Remarks.
Quarter-guard	6	
Pontoon-guard	3	
Takeedars	3	
Commanding officer's orderly	1	
Office orderly	1	
Post and Order Book orderly	1	
TOTAL	15	

(Sd.) J. HILLS, Colonel, R.E.,

*Commanding Sappers and Miners.*

Lieutenant-Colonel W. Fichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

No. I think in peace they should be capable of being used in the construction of military works of all descriptions, and in war they should be something more than mere pioneer companies trained to construct field-works.

Lieutenant-Colonel W. H. Burton,  
R.E.

The present organization is not fit for peace or for war.

Captain W. North, R.E.

No; the companies are too small in Native strength. There is no provision for securing properly qualified officers; and though a sufficient number of British non-commissioned officers are obtained, a large proportion of them are inefficient; and there is no transport for engineer equipment.

Captain H. H. Cole, R.E., Executive Engineer.

Viewed as a scientific branch of the army, I do not think that the Native sappers and miners are all that might be trained and made usefully available both in war and peace time. There is a want of skilled labor among combatants, such as we enlist in England, and such as is to be found in force in continental armies. For purposes of earthworks of a rude kind, for military roads, and clearing lines of communication, the Native sapper is no doubt of excellent material—not better, however, than the men enlisted in pioneer regiments. For pontooning, the Native sappers are easily taught to handle boats and pontoon; but in this respect I am unaware of their possessing any special qualifications not found among strong and athletic Natives of the fighting classes enlisted in other corps. For distinctly scientific army work, I cannot but think that no sufficient training is given to Native sappers and miners. In England men are enlisted from the artisan classes, and have, as a rule, special qualifications, such as those of a carpenter, mason, smith or clerk. In India the fighting Native has no such qualifications, and can have none except through special training. It would, I believe, be acceptable to Natives to be taught the rudiments of carpentry, masonry, and how to repair their tools. They could, I think, be made to feel that such work was an honorable adjunct to their fighting use.

Captain W. T. Stuart, Interpreter  
and Quarter-Master, Bengal Sappers  
and Miners.

The corps of sappers and miners up to 1857 was composed of 12 companies, with 2 companies of local or secondary sappers stationed at Darjeeling = 14 companies in all. Since then the frontier has been considerably extended towards the north-west, and 12 companies of 120 private sappers in time of peace, increased to 150 in time of war, would not be a man too many. Sappers can and should be usefully employed

in various ways during peace, especially on roads in and leading to hill stations, where hired labor costs much and cannot be obtained at any price.

2. If not, what changes in its constitution and organization are, in your opinion, desirable, bearing in mind that in peace the corps should be at a minimum strength, but with the means of expansion for war?

Major-General F. R. Manssell,  
C.B., R.E.

The general organization is sound: a few detail improvements are wanted.

Assuming the present strength efficient for peace, the depôt company should be able to supply casualties and accidental requirements, for which purpose it should be about 150 strong.

*Note.*—I would bring to notice here that one of the formerly existing ten companies was formed into a depôt company in 1873, which reduced the number but increased their efficiency. The Madras corps has a depôt company besides the ten service companies.

I would have some of the companies on war footing, or the means at hand to bring them to that at once. My aim has ever been to render my sappers ready to take the field at once without any of those changes which injure efficiency.

Major-General A. Fraser, R.E.

The changes in its constitution and organization which I should recommend are detailed below in the answers to subsequent questions. The total strength that should be maintained both in peace and war is, according to my views, 1,000 rank and file, exclusive of non-commissioned officers for Bengal only, of which 200 (or such number as constitute the ordinary strength with the colors or in reserve of two complete companies of royal engineers) should be Europeans and 800 Natives. For Madras and Bombay probably a smaller number would suffice.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

The corps is at present on a peace footing. During war it would be perhaps better to raise the strength of a company to 150 rank and file; and, before the commencement of another war, special companies should be added for the pontoon train, telegraph train, and sub-marine mining.

Colonel the Hon'ble C. J. Merri-  
man, C.S.I., Acting Secretary to  
the Government of Bombay, Pub-  
lic Works Department.

I would increase the strength and employ the corps on public works, military or civil, or both, in time of peace.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

The organization now required is detailed in paper II,\* marked S, which gives the necessary establishment for peace.

Every attempt has been made to keep the *personnel* and *matériel* within the bounds of economy; but as it is impossible to train a sapper in a day, a greater number of them must be kept available than in other branches of the service. It greatly depends on the assistance the Public Works Department give in employing companies, whether their cost will be great or small. An essential point is to change the name of the corps to "Indian Royal Engineers."

Briefly, the peace establishment should be—

1 depôt company.

1 torpedo "

1 telegraph "

1 pontoon "

1 field service "

} These three to be kept in a state of  
readiness for immediate service.

3 companies under instruction at head-quarters.

3 " detached at Aden, Public Works Department, &c.

1 43rd company, Royal Engineers.

Total 11 Native and 1 skeleton company, Royal Engineers.

Head-quarter staff of "Bombay Royal Engineers"—

1 commanding officer, colonel or lieutenant-colonel.

1 2nd commanding officer, major commanding 43rd company.

1 adjutant.

1 quarter-master and superintendent of park and train.

1 inspector of field works, &c.

1 " army signalling.

2 assistant instructors.

9 company officers to ordinary companies.

3 attached to detached companies.

3 officers to torpedo company.

Total 23 officers.



Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

In my opinion, each company of sappers and miners (putting on one side the special companies for pontoons and telegraph) should be a fully-officered company of artificers and miners. The men who in India sink wells and in this country make *karezes* must be born miners.

Lieutenant-Colonel W. H. Burton,  
R.E.

I would substitute skilled artificers for nearly all the privates in each of nine companies, would abolish nearly all the so-called head-quarter artificer maistrys, reduce the numbers in nine companies, and substitute a sub-marine mining company for one of the present ten companies.

Captain W. North, R.E.

Instead of the present system, which only provides four properly qualified officers between the ten companies, there should be two officers per company, permanently attached, with sufficient staff pay.

I would obtain the greater part of the British non-commissioned officers by volunteering from British regiments in India.

If I saw how the corps could be expanded in war time, I would be content with the present numbers of Natives in peace time.

Twelve trained and good mules per company, with a mule-driver to each, are most urgently required, both in peace and war.

Captain H. H. Cole, R.E.,  
Executive Engineer.

In times of peace, besides drill, field-works, telegraphing, pontooning, bridge-making, road-making, signalling, &c., much useful work could be executed to the benefit of the State in public works by the Native corps of sappers and miners. I think that it would not be impossible to enlist a certain proportion of carpenters, smiths, masons, painters, &c., or to instruct the ordinary Native sappers in the rudimentary duties of such trades. I would strongly recommend that 50 per cent. of the men in each company should have some special training to fit them for executing in all their details such works as—

field fortifications,  
roads,  
telegraph lines,  
trestle and other bridges;  
huts for troops,  
repairs to boats and pontoons;

whilst the remainder of the company should be kept specially to ordinary duties.

Captain W. T. Stuart, Interpreter  
and Quarter-Master, Bengal Sappers  
and Miners.

The minimum strength then would be 1,440 private sappers in peace, increased to 1,800 private sappers in time of war.

3. As it is obviously impossible to maintain an army always on a war footing, what should be the strength of a company of sappers on a peace establishment?

Major-General F. R. Maunsell,  
C.B., R.E.

*File answer 2.*

Major-General A. Fraser, R.E.

The Native companies should be maintained at their full war strength in time of peace, meeting the necessity for economy by keeping entire companies on the reserve list as detailed further on rather than by retaining the full number of skeleton companies in time of peace and expanding them when war broke out.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

The strength should be—

1 officer, royal engineers.	1 pakali.
1 subadar.	1 carpenter.
1 jemadar.	1 smith.
4 havildars.	1 hammerman.
8 naiks.	1 bellows-boy.
2 buglers.	1 non-commissioned officer,
105 privates.	royal engineers.
1 regimental lascar.	

The pontoon company should be stronger than the above; otherwise, after guards and sick are deducted, there will not be enough men to handle the pontoon gear efficiently. The telegraph and pontoon train companies should each have—

2 sergeants.  
2 corporals.  
2 2nd corporals.

The strength of a sapper company may at first sight appear too great, but it can be well commanded by one British officer. Nearly the same number of Native officers and non-commissioned officers is given to weaker companies of Native infantry. If a company were weaker, there would be very few men for work after deducting those required for guards and the sick in hospital. This would be specially felt when

sappers are employed (as they often are) in road-making through unhealthy places. For instance, on the Tambracherry Ghât two companies of sappers could at last only give one man for work per diem between them.

I retain the hammerman and bellows-boy on the peace establishment, as they cost very little and do work which would otherwise occupy the time of sappers; moreover, hammermen and bellows-boys sometimes develop into excellent sappers.

One hundred.

Colonel the Hon'ble C. J. Merri-  
man, C.S.I., Acting Secretary to  
the Government of Bombay, Public  
Works Department.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

The peace establishment of a company should be at head-quarters—

- 1 company officer.
- 3 non-commissioned officers, Europeans.
- 1 subadar.
- 1 jemadar.
- 5 havildars.
- 7 naiks.
- 8 lance naiks.
- 2 buglers.
- 100 privates.
- 5 artificers.

If the company is detached, another officer and some more privates should be added especially for Public Works Department works.

Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

I think all companies should be kept up on a war footing; they might profitably be employed upon public works during peace. The establishment should be about 150 rank and file.

Lieutenant-Colonel W. H. Bur-  
ton, R.E.

The company for sub-marine mining service, I think, should be of the following strength and trades:—

Native officers, Native non-commissioned officers, buglers, puckallies, sergeants, corporals, and 2nd corporals, as at present.	<i>Sappers.</i> 10 blacksmiths. 10 hammermen. 10 boat-builders. 4 carpenters. 1 locksmith. 70 boatmen.
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Total ... 105

The remaining nine companies to be each composed as follows:—

Native officers,  Native non-commissioned officers, buglers, puckallies, sergeants, corporals, and 2nd corporals, as at present.	<i>Sappers.</i> 12 bricklayers. 6 stonemasons. 6 blacksmiths. 3 locksmiths. 6 hammermen. 6 carpenters. 3 coopers. 3 chucklers. 3 lime-burners. 3 brick-makers. 3 wheelers. 14 excavators.
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Total ... 68

Captain W. North, R.E.

- 2 British officers.
- 6 British non-commissioned officers.
- 2 Native officers.
- 4 havildars.
- 8 naiks.
- 2 buglers.
- 100 sepoy.
- 12 drivers.
- 8 artificers.
- 12 mules.

Captain J. Dundas, R.E.

For the reasons stated under (35), I think the sappers should always be on a war footing. The present strength of a company is, I believe, 100 men, and this appears sufficient.

Captain H. H. Cole, R.E., Execu-  
tive Engineer.

Excepting for mere fighting purposes, the company should be composed in peace time of as large a number of skilled men as in time of war. In peace I would have 150 men, out of which 75 should be artisans or have some knowledge of artisan work.

Captain W. T. Stuart, Interpreter  
and Quarter-Master, Bengal Sappers  
and Miners.

*Vide* answer 2.

4. As it is obviously impossible to maintain an army always on a war footing, what should be the strength of a company of sappers on a war establishment?

Major-General F. R. Maunsell,  
C.B., R.E.

The war establishment may be taken as 150; 180 would not be too many for the duties.

Major-General A. Fraser, R.E.

The war strength of a company of Native sappers should be 100 rank and file, exclusive of non-commissioned officers.

Colonel H. N. D. Prendergast,  
R.E., Commandant, "Queen's Own"  
Sappers and Miners, Madras.

It should be—

3 officers, royal engineers.	1 regimental lascar.
1 subadar.	1 pakali.
1 jemadar.	1 carpenter.
4 havildars.	1 smith.
10 naiks.	2 non-commissioned officers,
2 buglers.	royal engineers.
128 privates.	

Or if likely to have trench-work or working parties of British infantry—

2 sergeants.  
2 corporals.  
2 2nd corporals.

I omit all mention of the special companies, as much depends on the duty on which they would be employed and on the animals given for draught; but I would deprecate army foot-officers with cavalry swords, mounting drivers on saddles, and other fancies that have crept into nearly all the schemes for telegraph and pontoon trains, though of course line inspectors should be mounted and armed as horsemen.

Colonel the Hon'ble C. J.  
Merriman, C.S.I., Acting Secretary  
to the Government of Bombay,  
Public Works Department.

One hundred and fifty.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

The war establishment should be as follows:—

3 officers.	2 buglers.
6 European non-commissioned officers.	140 privates.
1 subadar.	8 artificers.
1 jemadar.	6 drivers.
5 havildars.	10 horses.
7 naiks.	1 wagon.
8 lance naiks.	16 doolie-walas.
	6 bheesties.

It is necessary on a war footing to increase the number of privates, for it must be borne in mind that the details of guards, fatigue duties, sick, &c., have a very much greater proportionate effect on a small number than on a large, and more work would be obtained from two companies of 140 each than from three of 100. Thirty to forty men will always be unavailable for work out of each company; this reduces the small company to from 50 to 60; whereas in the company 140 strong there would still remain 100 for work.

At Cyprus, with the numerically small company strength of 80 men, both at Larnika and Dalli, the working parties were so reduced in numbers as to be of small use; for a fortnight at one time the average daily party was only 15 men.

The officer in charge of the company in his final reports states: "I beg to bring to the notice of the commandant the following points connected with the organization of the company; first, strength of company. At present a company is only 94 strong of all ranks. The consequence is that if sections are ordered on detachment, they are so weak that they cannot carry out work properly, and whenever sickness breaks out to any extent, the whole company becomes practically useless; men are always required for guards; there are defaulters, &c., and the working parties become too small for efficient work. I would suggest that the strength of the company be increased to 175 non-commissioned officers and file as in the English service, the non-commissioned officers being increased in proportion."

Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

*Vide* answer 3.

Lieutenant-Colonel W. H. Burton,  
R.E.

The sub-marine mining company to be of same strength in war as in peace.

The remaining nine companies to be each increased in strength by 40 excavators.

Captain W. North, R.E.

3 officers.	2 buglers.
6 British non-commissioned officers.	150 sepoy.
2 Native officers.	12 drivers.
6 havildars.	9 artificers.
12 naiks.	12 mules.

I wish to repeat that I don't see how this expansion is practicable.

Captain H. H. Cole, R.E., Executive Engineer.

I would increase the company to 200, making the additional 50 merely an addition to the fighting capacity.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

*Vide answer 2.*

5. What should be the number of royal engineer officers per company, and how distributed?

Major-General A. Fraser, R.E.

To each company one officer should be posted. The corps of royal (Bengal) engineers is moribund, and as officers would have to be obtained for the Bengal sappers and miners from the imperial list, the arrangements must be made with that view; and it is a question whether we might not revert somewhat to the old plan of sappers and pioneers, or say now royal engineers and sappers, the Europeans being the royal engineers officered from the royal engineers, and the sappers the Natives officered by staff corps or other officers from the infantry branch of the army having knowledge of the language.

The quarter-master should be of the latter class, the officer commanding a field officer, and the adjutant a subaltern of royal engineers. The Native companies might be commanded by either a captain or a subaltern in equal numbers of each grade.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

There should be a captain or senior subaltern, royal engineers, in command of a company, and a lieutenant, royal engineers, to each half-company, with a major, royal engineers, in command of a detachment of two companies on war establishment; but one officer, royal engineers, is enough in time of peace.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Governor of Bombay, Public Works Department.

One in time of peace; two in time of war.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

At head-quarters, one royal engineer officer per company is sufficient. Two ought to be posted to each detached company as on public works department, &c., and three on service.

Lieutenant-Colonel W. Hichens, Commanding Royal Engineers, Southern Afghanistan Field Force.

One major and two subalterns in peace, three subalterns in war, one of these subalterns being put in special charge of the equipment and necessary carriage.

Captains appear to be neglected in this proposal, but they would in war time find their natural positions as adjutant, majors of brigade, and in charge of field and siege parks.

Lieutenant-Colonel D. Limond, R.E.

Each company on service should, in my opinion, have at least two officers attached. If sapper officers are appointed assistant field engineers, there should be three.

Lieutenant-Colonel W. H. Burton, R.E.

1 commandant, colonel or lieutenant-colonel, royal engineers.

1 second-in-command, major, royal engineers.

1 instructor in field works and army signalling, captain or lieutenant, royal engineers.

1 adjutant, captain, royal engineer.

1 quarter-master and interpreter, royal engineer or staff corps officer. European non-commissioned officers as at present.

To each of nine companies in peace—

1 captain, royal engineers.

1 lieutenant, royal engineers.

In war—

1 captain, royal engineers.

3 lieutenants, royal engineers.

To sub-marine mining company in peace and war—

1 captain, royal engineers.

3 lieutenants, royal engineers.

One of these officers to be instructor in sub-marine mining. None of the above appointments or positions to be tenable for more than five years.

Captain W. North, R.E.

At least three in war time, one to command and one to each half-company.

For peace time it would be satisfactory if we even had two permanently per company.

Captain J. Dundas, R.E.

One officer per company seems sufficient. In war time as many officers as may be required are attached to a force, and the sappers should work with, and under, the field engineers.

Captain H. H. Cole, R.E., Executive Engineer.

One major for general command and supervision; one captain and two subalterns for ordinary duties and instruction in war time; and one captain and one subaltern in peace time.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

Two royal engineer officers per company would be ample,—one as commandant, the other as paid duty officer.

6. Is the strength of the corps in proportion to that of the army to which it belongs?

Major-General F. R. Maunsell, C.B., R.E.

From a treatise before me, I note the following proportion of sappers to infantry:—

Bengal	...	...	...	1	to	62
Madras	...	...	...	1	„	27
Bombay	...	...	...	1	„	57
England	...	...	...	1	„	25
Germany	...	...	...	1	„	26
Italy	...	...	...	1	„	24
Russia	...	...	...	1	„	82
Austria	...	...	...	1	„	33

So that Bengal has about one-third the proportion of other armies, while Madras is about par.

The constant demand for sappers, eight of the nine companies constituting its effective strength being now detached (and the remaining at head-quarters being shattered from detached duty), is the plainest evidence of their deficiency; and this demand is one not tending to a decrease. I believe, indeed, that this system can only result in rendering the corps totally inefficient.

I believe that the sappers might be trebled and not be too many, and that, if doubled, they would not be out of proportion if the infantry were reduced to 50,000 from 77,000.

I believe that an increase in this sense would be economical, because the staff sufficient for the corps and for the companies would suffice for a considerably increased number of workmen.

The sappers on detached works in peace and on service are never enough. A company on service seldom turns out more than between forty and fifty men. What with guards, sick, specially employed, and casualties when 200 would well be utilized. There is an enormous difference between the work of trained and untrained men, and the want takes four or five times the number of line men, and some times they cannot do it owing to difficulties requiring skilled labor.

Again, sappers are good as fighting men; they have ever distinguished themselves in front of the enemy.

Major-General A. Fraser, R.E.

I think that the strength I have suggested would be suitable for the work likely to be required under the present conditions of the service.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

The strength is less than that which would be allotted to a similar force of the British or German army. A British army-corps, containing 21 battalions, has 1,267 engineers, which is about the strength of the corps of "Queen's Own" Sappers and Miners, although there are 49 battalions in Madras.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

I should say most certainly not.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

No; quite out of all proportion. In the Prussian army, before the war of 1870-71, the proportion of engineers to infantry was 1 to 21. Since the lessons of the war it has become 1 to 19; and this does not include certain special branches, as the new railway battalion, &c.

In an English army-corps the proportion is 896 non-commissioned officers and men, engineers to 21, 924 non-commissioned officers and men, infantry; but adding the drivers, &c., it is 1,238 to 22,386, or either 1 in 24½ or 1 in 18, or, say roughly, 900 for 21 battalions.

In Bombay the proportion is 1 to 61 infantry, or 430 to 29,334; leaving out torpedo company and depot, the proposed number is 1,100 to 30 battalions.

Lieutenant-Colonel W. Hitchens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

I don't know; the proper strength is two companies sappers and miners to each division.

Lieutenant-Colonel D. Limond,  
R.E.

Yes; for India, sappers are very easily called upon to perform more than pioneer duties.

Lieutenant-Colonel W.H. Burton,  
R.E.

Both that of royal engineers and of sappers and miners are.

Captain W. North, R.E.

It is altogether below the proportion maintained in all other armies that I know of. Taking the infantry of an army as represented by 1, the usual proportion of sappers would seem to be  $\frac{1}{2}$ . In this army it is about  $\frac{1}{7}$ .

Captain J. Dundas, R.E.

So far as the establishment of Native sappers is concerned, I think the strength is not excessive, and that, aided as the sappers would be when necessary by pioneer regiments, it is sufficient. The strength of royal engineer officers in India is more than sufficient for military purposes.

Captain W. H. Pierson, R.E.

The proportion of engineers laid down in the English army is one company to each division, and one company, one pontoon train and one telegraph troop to each army-corps, say six companies to every twenty-one line regiments. The strength of the sappers and miners in Bengal is below this standard, and might be increased with advantage.

Captain H. H. Cole, R.E., Execu-  
tive Engineer.

I do not think that the number of companies are distributed equally over the three present armies. There are five companies in the Bombay sappers, ten in the Bengal sappers, ten in the Madras sappers. It would, I think, be better to have a battalion of six companies for each *corps d'armée* of 30,000 men.

Captain W. T. Stuart, Interpreter  
and Quarter-Master, Bengal  
Sappers and Miners.

It is under the ordinary strength of other armies as regards Bengal.

## 7. What have been the usual peace stations of the companies within the last five years ?

Major-General F. R. Mansell,  
C.B., R.E.

Besides whole companies at the stations mentioned by Captain North, detachments have been at Calcutta on torpedo duty; also at various stations on garrison instruction duty.

Colonel H. N. D. Prendergast,  
R.E., Commandant, "Queen's Own"  
Sappers and Miners, Madras.

During the last five years usually one company has been in Burma, one at Ootacamund, two or three at Secunderabad.

One company was employed on the water-supply project near Bangalore.

During the famine three companies were employed on the Buckingham Canal and one in the Bellary district.

One company has been detached to Bombay for sub-marine mining.

Three companies were in Afghanistan, two were at Malta and Cyprus. At present two companies are in Burma, two in the Rumpia country, one at Secunderabad, and the remainder at head-quarters.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

The ordinary peace stations have been Kirkee, Aden and Butcher's Island, Bombay.

Lieutenant-Colonel D. Limond,  
R.E.

Roorkee.  
Peshawar.  
Rawal Pindi.  
Quetta.

Lieutenant-Colonel W. H. Burton,  
R.E.

Bangalore.  
Secunderabad.  
Rangoon.

Captain W. North, R.E.

Roorkee.  
Rawal Pindi.  
Peshawar.  
Cherat.  
Quetta.

Captain H. H. Cole, R.E., Exe-  
cutive Engineer.

Bengal sappers—  
Roorkee.  
Peshawar.  
Quetta.  
Madras sappers—  
Bangalore.  
Cyprus.  
Bombay sappers—  
Poona.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

Peshawar 2 companies, Rawal Pindi 1 company, Quetta 1 company, with detachments at Calcutta and garrison classes.

8. Are the number of officers of the royal engineers with the several corps of sappers and miners sufficient?

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

It is not usually quite sufficient. Majors and lieutenant-colonels of the staff corps have sometimes held the command of companies when officers of the royal engineers were scarce, owing to the demands of the public works department. The established number of officers, 25, is ample for the peace establishment, but the organization is defective.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

Certainly not; there has been a perpetual shifting of the royal engineer officers in the Bombay corps, and often there have been more than three or four royal engineer officers at a time with the corps. The whole establishment is totally inadequate for proper instruction or even for proper command of companies.

Lieutenant-Colonel W. Hichens, Commanding Royal Engineers, Southern Afghanistan Field Force.

No. If they are to be used in peace and efficient in war, the companies should be officered as I have proposed.

Captain W. North, R.E.

In the Bengal sappers and miners they are not sufficient.

Captain H. H. Cole, R.E., Executive Engineer.

The number of officers at present with the various corps of sappers and miners are as follows:—

*Bengal Sappers and Miners—*

10 companies.  
1 commandant.  
1 adjutant.  
1 quarter-master and interpreter.  
1 superintendent of instruction.  
1 superintendent of park and field train.  
1 instructor of army telegraphy and signalling.  
4 doing-duty officers.  
1 medical officer.

Total 11

*Madras Sappers and Miners—*

10 companies.  
1 commandant.  
1 adjutant.  
1 quarter-master and interpreter.  
1 instructor of army signalling and telegraphy.  
1 medical officer.  
2 captains doing duty.  
8 lieutenants doing duty.

Total 15

*Bombay Sappers and Miners—*

5 companies.  
1 commandant.  
1 adjutant and superintendent of instruction.  
1 quarter-master and interpreter and superintendent of park and field train.  
1 instructor of army telegraphy and signalling.  
5 company officers.  
2 doing-duty officers.  
1 surgeon.

Total 12

The unequal distribution of officers to the number of companies seems unnecessary. If 11 in Bengal are sufficient for 10 companies, the same number should be equally so in Madras; whilst 12 for 5 companies in Bombay seems an unnecessary extravagance.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

Royal engineer officers are rather expensive; in former days they could not be got to stay with the corps, the public works department offering too great inducement. I would say that one officer per company would be enough at head-quarters, and two with each on detachment command. It would add to the efficiency of the corps to have a field officer as 2nd-in-command, and at least two of the rank of captain, the commandant being a lieutenant-colonel, and the officers taking up duty with the sappers should remain for their full tour of duty in India, or say seven years.

9. It is stated that there is a difficulty experienced in retaining young officers of ability at their legitimate duties with the sappers and miners, consequent on the superior inducements held out to them by the Public Works Department. Is that the case; and if so, does the service suffer in efficiency therefrom; and how would you propose to remedy it?

Lieutenant General C. W. Hutchinson,  
Inspector-General of  
Military Works.

Under the present system, young officers of royal engineers on first arrival in India are posted to the corps of sappers and miners; and, after a certain period passed with these Native troops, those who do not prefer to remain with the sappers enter the public works, survey, or other departments.

So far from "superior inducements held out by the public works department" withdrawing officers from the sappers and miners, it is often found difficult to attract these officers from the pleasanter and easier "regimental" life to adopt a "departmental" career.

The advantages enjoyed by the royal engineer subaltern with the sappers are—

- light work;
- casual, privilege, and general leave, often and easily obtained;
- a pleasant and healthy head-quarters station;
- an independent position when on detached duty;
- sufficient pay and few expenses;
- generally a settled life;

whereas in the public works department he is liable to increased expenses, constant changes, very heavy and often irksome work, rare opportunities of leave, and liability to unhealthy, lonely, or disagreeable locations; and to compensate for these disadvantages the scale of pay and the rate of promotion in the public works department are not such as to offer any strong attractions.

As far as my own experience goes, I believe that there is no difficulty in retaining, for regimental service at Roorkee, a sufficiency of able young royal engineer officers; and that, on the contrary, there is generally a disinclination on the part of the subaltern to abandon the more easy and attractive military life for a civil or quasi-civil career on public works, and that the prospects of very slightly higher pay hardly compensate for the very much greater responsibilities and harder work of that department.

As will be seen further on (in my answer to question 66), I consider that young royal engineer officers on arrival in India (Bengal presidency) should be appointed *not* to the sappers and miners, but to the Military Works Branch, which in its (proposed) improved military organization should be the legitimate field of employment for royal engineer officers in India; and that not until after a certain period of approved service in the Military Works Branch should the royal engineer subaltern be allowed to elect for service with the sappers or for departmental employment.

It will be remembered that the royal engineer subaltern, on landing in India, is fresh from regimental duty and from the school of military engineering at Chatham, and has no immediate need for a further course in similar work at the sapper head-quarters; and that he will have opportunities of learning the languages, the modes of life, and the official routine of India under the guidance of the commanding royal engineer and garrison engineers of the Military Works Branch more thoroughly than in the purely regimental routine of life at Roorkee.

Major-General F. R. Maunsell,  
C.B., R.E.

I agree with Captain North as to the ability of the sapper officers. I am quite sure that the sapper officers are rather above par as to ability as compared with those who join public works. But it is that the allowances to more than half of the company commanders are totally inadequate; they are less than those of any officers in the army having any duties with Native troops, while their duties are very onerous and much is expected of them.

Officers commanding Madras sapper companies get Rs. 100 a month more than them; subalterns of mountain batteries get Rs. 90 more, with hardly any responsibility.

I would remedy this by simply placing all officers commanding companies on the same footing; also one subaltern per company, besides on the lower scale of doing-duty allowance, or Rs. 52 more than at present. I do not object to all royal engineer officers joining the corps.

Major-General A. Fraser, R.E.

In former days, before the abolition of the separate corps of Bengal Engineers, service in the public works department was as much the legitimate duty of the officers as service with the sappers and miners was;



and young officers were posted either to the sappers or to the public works department, simply in accordance with the requirements of the public service, and not with reference to their views of superior inducements. Latterly, service in the public works department in the case of young officers of the imperial list in India has been to a certain extent treated as optional. The appointments with the sappers carrying staff pay have been increased in number and emoluments; and I believe there has been no difficulty in recent years in retaining the full complement of officers required with the sappers.

Colonel J. G. Medley, R.E., Consulting Engineer to the Government of India, Railway Department.

I do not understand the use of the word *legitimate* as here applied. The royal engineers are a corps of officers similar to the staff corps, and do not belong to the sappers and miners, except when temporarily attached to it. Their duties, therefore, in the public works or any other department to which they may be posted are quite as "legitimate" as when attached to the sappers and miners. I should say that at present the difficulty is rather the other way, namely, to induce many of the young royal engineers attached to the sappers to join the public works department, as their promotion with the sappers proceeds (I think up to 3rd grade executive engineer) *pari passu* with that of their public works contemporaries, and there are many inducements (in the shape of a more idle life, greater facilities of getting leave, &c.) to their remaining with the sappers. Of late years, too, a feeling has arisen among the young sapper officers that the civil duties of the public works department are undignified for a soldier. I believe this state of things to be very unfortunate and detrimental to the best interests both of the sappers and the public works department. The life of a young sapper officer in time of peace is a very idle one, and he has little opportunity of learning more than he knows already. In the public works department he is always learning something, and much that is of essential service to him in time of war. He learns the language, something of the people, how to manage workmen, the nature of the materials and modes of construction peculiar to and best adapted to the country: above all, he learns to rely on himself and his own resources. And even if, after being out of military harness for a few years, he has forgotten some of the details of the parade-ground, he has acquired an experience, a feeling of confidence and a readiness of resource under difficulties that are far more valuable than what he has lost. I should therefore be inclined to insist on all young royal engineer officers joining the public works department in the first instance for from three to five years, after which I would allow a certain number to return to the sappers if they wished, drafting others, if necessary, from the public works department in time of war.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

Formerly, the superior inducements held out by the public works department attracted nearly all the young officers, royal engineers; but now a smart officer finds that he will draw quite as good pay by staying with the sappers as he would by entering the public works department, if he is only to stay in India for his tour of seven years.

I advise officers who are going to make India their home to join the public works department after serving a year with the sappers, unless they have a strong military bias. The prospects of a young officer in the public works department are at present not brilliant; but when a reduction in favor of public works sets in, there may be again a good opening for officers, royal engineers, and a tendency to leave the sappers as soon as possible. To be prepared for this contingency, the staff of the corps of sappers and miners should be rendered attractive; and staff and company commanders should be graded in the public works department. During peace the sub-marine mining company should have two officers; ordinary companies one officer each; pontoon and telegraph companies several officers each.

The commandant,  
adjutant,  
quarter-master,  
instructor in field works,  
superintendent of park,  
instructor of army signalling,  
instructor of telegraphy,

} should have the same advantages as officers holding similar appointments in Bengal.

Some of the staff would require assistants, and reserve officers are required. During the present year two officers have died, two are invalided, and one is on leave.

Colonel the Hon'ble C. J. Merriam, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

Yes, I should say it certainly is the case.

The service is liable to suffer in efficiency.

I would increase the sapper allowance to Rs. 120 per mensem; and when the companies are employed upon public works, allow the officers to draw public works department salary.

Lieutenant-Colonel R. De Bour-  
bet, R.E., Consulting Engineer to the  
Government of India for Guarant-  
eed Railways at Lucknow, now on  
special duty in Beluchistan.

Royal engineer officers enter the service to work with royal engineer soldiers, who are enlisted as skilled workmen or educated men. When serving with sappers and miners in the Bengal Presidency, they become schoolmasters in elementary pioneering and field-work to ignorant Natives, and do not themselves advance in knowledge. It is for this reason, and not for the sake of lucre, that many royal engineer officers prefer to enter the public works department as a better field for their own practical improvement in their profession.

On the other hand, the unceasing work and toil, the heavy responsibility in money and accounts, the want of holiday rest and leave, and, above all, the slowness of promotion in the public works department, are serious drawbacks, not compensated for by the small additional salary earned in the lower grades.

If the sappers and miners were also enlisted as a skilled body of workmen, there need be no fear of young royal engineer officers preferring the public works department as a career.

If appointments on the army staff were practically open to royal engineers, in the same way as they are to the royal artillery, this would be a strong inducement to a large number of officers to elect for purely military duty with the sappers and miners to begin with. At present such openings are so rare, that a royal engineer officer has no hope of attaining to one.

Lieutenant-Colonel A. M. Lang,  
R.E.

There is no difficulty in retaining young officers of ability with the sappers and miners. On the contrary, the public works department does not attract royal engineer subalterns.

The young officer with the sappers and miners has light duties, a good head-quarters station, pleasant society, sufficient pay, and small expenses.

The young officer in the public works department has hard and often uncongenial work; but little better pay, constant changes and expenses, and often unhealthy and lonely stations.

Every officer of royal engineers should, on arrival in India, be posted to a military works department (remodelled so as to be more military in character). When reported qualified in language and departmental tests, he should be posted permanently to the military works department, the sappers and miners, or some other department, as he may elect, or as vacancies may occur. The military works department and the sappers and miners to have the first claim to his services. The trigonometrical survey should also be exclusively officered by royal engineers; and one or more state railways should be constructed and worked by a staff of royal engineer officers and men, so as to ensure systematic training for the corps in all details of this most necessary adjunct of military operations.

The sappers in the three presidencies cannot require more than 60 officers, if so many; and as there are more than 400 officers in the 9 battalions of royal engineers in India, there can be no difficulty in securing one-seventh of this number for sapper duty; the difficulty may rather be to find suitable employment for the remaining six-sevenths of the corps.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

Undoubtedly, and naturally so for two reasons. First, many are tempted by the broader range of, and more independent life opened out by, the public works department; and, secondly, by the pecuniary considerations. The engineer officer is more or less a mathematician, and fully realizes the value of Rs. 250 staff pay, *plus* travelling allowances, free life, with change of scene and employment, when balanced against Rs. 60 staff, with a possible addition of Rs. 30 more should he be fortunate enough to obtain a company. The service naturally suffers, as there is a constant change of officers when companies are handed over to royal engineer officers; and still greater harm is done when staff corps officers, who do not and cannot acquire the many details of the several branches of engineering are retained in command.

The only practical remedy seems to be the slight increase of the sapper allowance from Rs. 60 to Rs. 112 (assistant field engineer's staff pay): this Rs. 112 to rise the fourth year, out of a royal engineer's seven years of Indian service, to Rs. 200. The company allowance to remain the same.

The difference of pay is still greatly in favor of the public works department; but this is what it should be in my opinion; only there should not be so great a disproportion as at present.

Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

I believe it is so; and the young royal engineer officers attached to the sappers are not nearly so efficient as field engineers as they would be if they were employed with their companies as I propose, and as is the case in England and the colonies, upon military works during peace. They would then be employed on public works and paid accordingly.

Lieutenant-Colonel D. Limond,  
R.E.

I do not recognize the only legitimate duty of a royal engineer officer to be to serve with a company of Native sappers. As far as I can

judge, service with the sappers in Bengal is only too popular. The practical training received in the public works department is most valuable to an officer on service, although I quite recognize knowledge on military matters generally is not kept up in that branch to the extent it should be.

Lieutenant-Colonel W. H. Burton, B. E.

I believe this is the case. I consider the service suffers by its royal engineer officers being kept in grooves and provinces by the conditions of pay, or by being kept *all their service* in the sappers from disinclination to accept the lottery of employment in public works department. Royal engineer officers undoubtedly are the better officers in war from having had previous employment under war department or in public works department, if, that is, such employment has not been purely office work at head-quarters. They would be also the better for having had some experience of Native sappers. But an officer who has been many years with sappers, and never, or only seldom, employed in constructing works, will be generally found comparatively inefficient in war. The remedy I would propose is that of making "Her Majesty's warrant for pay of royal engineer officers at home and abroad, except in India," applicable in principle to officers in India; and I would post every officer to sappers or to public works according to the requirements of the service from time to time. Because in India the receipt of staff pay in public works department and its amount is made a personal question, depending very much on an officer's personal friends, and very little on either his seniority, previous employment, or efficiency, therefore this difficulty of retaining any officer in particular, either with sappers and miners, or at unfavorable stations, exists. It should not be so; and would not be so, if the following remedy be adopted.—Place all royal engineer officers under the orders of His Excellency the Commander-in-Chief, to be moved about from station to station every three or five years, and from sappers to public works every five years, and from province to province throughout India: such orders to be promulgated through a deputy adjutant-general, royal engineers.

In this connection as I have always understood.

The present system was intended to have been broken up in 1861, and would have been, but for the suggestion that the departmental interests and prospects of the Indian engineer officers would be partially or wholly ruined thereby, and that the royal engineer officers who had then only home and colonial experience of engineering were unfit for Indian engineering. Although the former argument may, in the opinion of some individuals, be partly true, there was never a greater fallacy than the latter. I have no hesitation in saying that, as a body, royal engineers of Indian experience only in works are far behind officers of English and colonial experience in the knowledge and practice of engineering in all its branches, both military and civil, with the one exception of the duty to be done in an "irrigation revenue division," and that the Government of India suffers thereby in the cost, efficiency, and permanency of its public works.

Captain W. North, B. E.

The officers who remain with the sappers are most certainly not inferior in abilities to those who go to the public works department.

There is, however, a difficulty in retaining the services of sufficient numbers, as only those with strong military instincts or with sufficient private means would think it right to forego the very superior pay of the public works department. The service therefore suffers in efficiency.

I would remedy it by—

(1) Having a distinct class of officers out from England for the sappers, and allowing candidates for the public works department to join that department at once.

(2) Giving a staff pay of Rs. 200 a month to officers commanding companies, and Rs. 150 to attached officers.

Captain W. H. Pierson, B. E.

The legitimate duties of an officer of royal engineers will be considered in my reply to question No. 66. But, so far from admitting that the service suffers in efficiency from young officers of ability being employed in the public works department, I am of opinion that it would greatly gain in efficiency if no officer were appointed to be an instructor at Roorkee, or even to the command of a company of sappers, until he had served some time on military works, so as to obtain practical experience of engineering in India. Under the present system, officers with the sappers have no opportunity, except at the expense of an army in the field, of acquiring more than theoretical knowledge; and this, however essential, cannot provide them with that readiness of resource in engineering difficulties which is the outcome of experience and not of book-learning. In support of this view, I invite attention to Sir Garnet Wolseley's remarks, Part IV, page 271 of the Soldier's Pocket Book.

Captain H. H. Cole, R.E., Executive Engineer.

When I first joined the Bengal sappers and miners in 1865, it certainly was the case that young officers preferred employment on the public works; but I observe that of late there has been an increased desire to serve regimentally; and this has no doubt been increased by the operations on the frontier and in Cabul. With the contemplated reductions in public works, it will be rather a question to find employment for officers of royal engineers with the sappers, or in some way beneficial to the army generally and to its requirements.

Captain W. T. Stuart, Interpreter and Quarter-master, Bengal Sappers and Miners.

I believe such is the case; and, to remedy the defect and increase efficiency, all officers doing duty with the sappers should have the same pay as those on the public works. Military duty is lighter than is the work in the department public works, and more leave is granted.

Lieutenant H. Pilkington, Acting Deputy Consulting Engineer for Railways, Bombay.

I think that royal engineer officers prefer employment in the public works department to doing duty with sappers and miners, as the former gives them better pay, the work is more varied and interesting; they have greater opportunity of seeing the country, and they have more responsibility and independence. Departmental promotion is also open to them, independent of promotion in the corps. On the other hand, service with the sappers and miners in the Bombay presidency cannot be said to have many attractions; and the continual change among the officers hinders the feeling of *esprit de corps*.

The service undoubtedly suffers in efficiency from the difficulty in retaining officers with the sappers and miners.

Officers might be compelled to join the sappers and miners and serve a certain time with them; but as long as the public works department is open, it would be hard to get officers to display much zeal or interest in their duties, while they see their comrades holding what they consider a better position in the public works department. If only a certain number of officers were selected for the public works department, the best would probably be taken away; and the intention of retaining the most efficient officers with the sappers and miners would be defeated.

The only way of inducing officers to join voluntarily and remain with the sappers and miners seems to be to increase the pay, or increase the number of staff appointments. Increased pay might be arranged by grading all officers, as in the public works department, but on a reduced scale of pay, as officers serving with troops have certain advantages in the matter of quarters, mess, forage, &c.

I have never served with sappers and miners in India.

#### 10. Will you be so good as to detail the daily duties of the—

Quarter-master and interpreter?

Superintendent of instruction?

Superintendent of park and field train?

Instructor of army telegraphy and signalling?

Major-General F. R. Maunsell, C.B., R.E.

I can answer that the duties of the regimental staff were very heavy, under me. I never worked less than eight hours a day, and often ten and twelve, and my staff officers suffered in proportion; in fact, there is an enormous amount of work in such a miscellaneous corps.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

The quarter-master is charged with the care of the stores and ammunition, the equipments, clothing and necessaries. The barracks, stores, schools, workshops, and Native lines are in his charge, together with the roads, drains, sewers, latrines, bazaar and bazaar establishment. He is a member of the school committee, and the means of communication between the schoolmasters and the commandant. He keeps the cash chest and regimental accounts. He indents for the rations of the Europeans for all stores, applies for railway warrants, carriage, tents, &c. He takes charge of the regimental signal instruction every afternoon, and of the regimental signal practice once a week.

The superintendent of instruction puts company after company through a short course of field works, insuring uniformity. He lectures on tactics, arranges all working parties, and the details of field work instruction, including bridging and practice with the models; he is also responsible for field-work training of the recruits, and supervises all field-work experiments. He attends the 8 A.M. parade daily, and himself superintends the working parties.

The duties of superintendent of park and field train are carried out partly by the quarter-master and partly by an officer nominated by the commandant, who however receives no salary for it.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

The instructor of army signalling devotes his whole time to teaching classes of British and Native soldiers of all arms; he parades twice a day with his classes, and his success is proverbial. An instructor of army telegraphy has not yet been appointed, but is required.

In the Bombay corps the duties of quarter-master, interpreter, and superintendent of park and train are performed by one and the same officer. Similarly, one officer conducts the duties of the adjutant, the paymaster, the instructor of field works, and the superintendent of instruction.

Both these officers have work beyond their powers of executing, especially the adjutant.

The duties of the quarter-master and interpreter of course vary from day to day, but are comprised in the following:—

Preparation of all indents on the commissary of ordnance and other departments; all survey reports and papers connected with stores of every description required by the corps from day to day.

Inspection of lines and regimental buildings, and inspection of schools and workshops.

Issue of necessary orders and instructions for all manufacture and repairs of every kind as required for field and park train.

Issue of pay to lascar and conservancy establishments; finally, the custodianship of all the training plant and field practice plant.

He has also to perform his parade duty like other officers.

The duties of the superintendent of instruction are—

The instruction of the recruit field work class; the superintendence of company annual course of field works in conjunction with the company officers; the working out of projects and details connected with special field works.

Working hours for men at all works are eight hours per diem.

This appointment is at present merged in that of the adjutant; the consequence is that as the adjutant is paymaster and has heavy office work, the work of field instruction has constantly to be delegated to others.

The superintendent of park and train is in Bombay merged in the quarter-master. He ought to have special charge of all plant and stores, and not only repair and issue, but should construct most of the special plant and equipments required during the course of instruction of a military engineer.

The instructor of army signalling and telegraphy is employed in Poona. He has annually two signalling classes for Europeans and three for Natives. He, moreover, visits the whole of the European regiments in the Bombay presidency, and gives a detailed report of the efficiency and training of the regimental signallers.

From the above it will be seen that his duties vary from day to day according to the season of the year.

At the same time the telegraphy of the Bombay army has not been initiated at all, nor has the corps any plant of such a nature as even to instruct men in the subjects.

When a telegraph train is sanctioned, some advance will be made.

Captain W. North, R.E.

*Quarter-master and Interpreter.*—Office-work, orderly-room hour; and from 10 A.M. to 4 P.M. inspection of lines and transport animals: interpreting duties when required.

*Superintendent, Park and Train.*—Office-work, as above; constant supervision over manufactures: constant references on scientific subjects.

*Superintendent of Instruction.*—Office-work as quarter-master: attendance at all out-door instruction, varying as a rule from two hours in summer to eight in winter: attendance at all schools.

*Instructor of Army Telegraphy and Signalling.*—Office-work same as quarter-master: instruction of classes in army signalling in the winter.

The duties of these three officers are arduous, owing to the large size of the corps, to its being both British and Native, and to the number of scientific and other questions referred.

Captain W. T. Stuart, Interpreter  
and Quarter-master, Bengal Sappers  
and Miners.

The duties of the interpreter and quarter-master are onerous to a degree; the work is owing to the double nature of the corps, British and Native, and the number of the companies and men detached is equal to the work of a British and Native regiment. This post might, with advantage to the State, be filled by a quarter-master promoted from the ranks, as it would be some inducement for really good men to volunteer and a position to look forward to. There is nothing at present to give encouragement to the British non-commissioned officers, who have of late years fallen off very much; good men can do better by remaining with the companies in England or the colonies. The interpreter's duties might fall upon the superintendent of instruction who has now under him the whole of the educated Native staff. I refrain from offering an opinion upon the other three staff appointments.

11. Why should there be instructors in field-works and assistant instructors in any subjects not very special, if the officers of the corps are capable of imparting instruction ?

Major-General A. Fraser, E.M.

The appointments of instructors in field works and assistant instructors in various subjects were, I suppose, made in order to give the officers actually engaged in such duties something more than their bare military pay, which is nearly the same as that of an infantry officer who has not gone through successfully the same scientific training.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

Instructors in field works are required to insure uniformity of practice, to guide officers in command of companies, and to keep all companies to a nearly uniform standard, to conduct experiments, originate ideas, &c., &c. Assistants are very useful to keep up the records, to be ready to help or succeed their seniors. An assistant to the instructor of telegraphy would be very useful in teaching the sappers; for the instructor would probably teach the army generally, as the instructor of army signalling now does.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

There is a vast difference between one officer imparting instruction in a systematic, uniform, and continuous method, and others who in command of companies keep up so far the knowledge already acquired. Of all the staff appointments, I consider that of the superintendent of instruction to be the most vital and important. So long as a sapper can march fairly, his drill is of little moment; but once a sapper learns his field work in a slovenly or irregular manner, he is damaged almost beyond remedy. It requires steady practice and judgment to regulate the classes, to notice minor imperfections; and, above all, it demands the constant presence and eye of the instructor on the field work ground as an essential to successful outturn of sappers. The company officer has his daily details and duties to execute; he has his regimental tours of duty as well as garrison ones, &c., all of which would frequently interfere with his personal attendance.

All the arguments which may be quoted in favor of the appointment of a regular staff officer as adjutant, instructor of musketry, &c., may be arrayed, but in greater force as regards the superintendent of instruction; for the multiplicity of subjects make his work all the more important, and whatever is done to resuscitate the Bombay corps, I trust the first step may be the appointment of this third staff officer the superintendent of instruction.

The assistant instructors called doing-duty officers are detailed, one to assist the adjutant and superintendent of instruction, the other the superintendent, park and train.

The first is in special charge of all schools and theoretical instruction, surveying and European schools, and more generally in superintending any experiments or trials in field practice, assisting the superintendent of field works in any special duty, and acting for him when the latter is absent from any cause. He has of course his regimental and station duties in addition.

The second has special charge of the photographic, lithographic, and printing schools, will be in charge of the telegraphic and mining apparatus when we get them, and teaches signalling and telegraphy; is specially in charge of the Native artificers and over the sapper workshops; he assists the superintendent of park and train in drawing out working-plans, making calculations, &c., and acts for the latter when he happens to be away; and finally has his regimental and garrison routine duties to perform.

In fact, there is ample work for more than two assistants in the multiplicity of the military engineering studies.

Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

Officers may have a very sufficient knowledge of their work without being able to impart it to others. It is also important that the system of instruction should be uniform. And, again, an officer whose time is devoted to one special branch of engineering, may be expected from time to time to be able to introduce improved and more economical methods of working that branch.

Lieutenant-Colonel D. Limond,  
R.E.

I understand the instructor of field works deals with recruits; obviously it is preferable to instruct as many of this class together as possible.

Lieutenant-Colonel W. H. Burton,  
R.E.

I presume because no royal engineer officer is willing to perform such duties without extra or staff pay; and when staff pay is attached to such duties, very likely the Government does not obtain the services of the officer most qualified for such work, because, may be, he has better prospects and interests and friends in the public works department or elsewhere. It must be clearly understood that Her Majesty's royal

pay warrant for royal engineers is the fundamental principle of remuneration on which the corps of royal engineers has been raised and is founded. Disregard it, as it is now disregarded in India, and the efficiency of the whole corps suffers; adopt it in principle, and so upset the present distorted provincial—so-called—system, on which the royal engineer officers in India are dealt with; and then the Government will gain the best service from those officers most experienced in any particular branch of their profession, in any province, &c.

Captain W. North, R.E.

The instruction of the recruits alone would give a very fair amount of work to the superintendent of instruction and his one assistant.

But he has the superintendence of all the schools, and other instruction exercises as well. And his most important duty is to keep himself *au fait* in all the changes in military engineering going on at home. It is absolutely essential to have a special officer for this.

The only other assistant instructor is the telegraph one, and he is most necessary to help the instructor.

Captain W. H. Pierson, R.E.

From my own experience as one of the assistant instructors in field works at Chatham, I believe it to be necessary for the efficient training of sappers that there should be officers whose whole time can be devoted to the work of instruction. I do not wish to imply that the company officers, as far as regards their knowledge of the subject, are incapable of imparting this instruction; on the contrary, it is part of their duty to assist in doing so. But they cannot have sufficient time and opportunities to prepare lectures, conduct experiments, and keep up that acquaintance with contemporary professional literature, both English and foreign, without which the standard of instruction will not improve, if it does not even deteriorate. Again, the company is too small a unit to be thoroughly trained in field works. To enable men to form an intelligent idea of the object of their individual work, they must be shown the result in its completed state; and this cannot be done in the case of a company under separate instruction except at a cost of time and labor quite disproportionate to the object in view. To avoid waste of time, the course of instruction of each company must be combined with that of as many others as possible; and this involves a systematic direction of the instruction which cannot be arranged by company officers. Whatever necessity there may be for riding-masters in the cavalry, for gunnery instructors in the artillery, for musketry instructors in the infantry, there is far more need for field-works instructors in so special an arm as the sappers. The duties of the instructor in field works are indeed so important, that in my opinion he should be an officer of proved qualifications for the post, and, if possible, of the rank of field officer. This point will be again referred to in my reply to question No. 62.

12. What is the course of duty actually undergone by the young officers of royal engineers during the period they are attached to the sappers?

Major-General A. Eraser, R.E.

This should be answered by the officer commanding the sappers. I was adjutant of the sappers and pioneers, but my duty with them was mostly on field service.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

They are usually posted to companies, with which they go through drill, musketry, field-works, &c.; they usually have some particular work under their charge, such as the quarries, the survey school, the printing and lithographic presses, a brickfield or some work in progress, besides orderly duty, courts-martial, and committees.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

In Bombay there has been no excess of young officers, but much the reverse. Young officers of royal engineers are on first coming out attached (nominally for a year, practically for a much shorter time) to the head-quarters of the corps. They are employed on the usual company duties,—drill, field-works, &c.; are required to work at Hindustani, and make themselves generally acquainted with the interior economy of Native troops and the methods of work of Native artificers.

Lieutenant-Colonel W. Hichens, Commanding Royal Engineers, Southern Afghanistan Field Force.

Beyond learning the Native languages, the training at Roorkee is nothing more than a feeble continuation of that through which they have already passed at Chatham.

Captain W. North, R.E.

They are attached to companies at head-quarters and go to work and drill with them.

They do orderly duty as in British regiments.

They learn the language, most of them working very hard at it.

## 13. Are the numbers of British non-commissioned officers sufficient ?

Major-General F. R. Maunsell,  
C.B., R.E.

I am of opinion that the number of British non-commissioned officers might be reduced if those maintained were placed on a better footing and better selected. The supply from the royal engineers should not be shut off; but the chief supply should be from the line, under the plan proposed by me for the last five or six years.

I think that three per company would then answer.

The whole arrangement requires remodelling—more headmen as instructors and fewer drones.

The remands are a great evil.

There should be a small number of younger hands to supply sudden calls in the 41st Company.

I am sure that it should be clearly understood that these men are selected men in responsible positions with very important duties, and not available for other casual duties or calls. An order for some British non-commissioned officers sometimes denudes a company of special men to its very great injury.

Major-General A. Fraser, R.E.

I would not have any British non-commissioned officers with the Native companies; there is no regular discipline for them. The Europeans should be confined to the sergeant-major and the quartermaster sergeant, who should also look after the sapper stores.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

It is excessive. Very few of them are sober, intelligent, active, and trustworthy; the remainder are not of much value.

Lieutenant-Colonel J. Hillis, R.E.,  
Commanding Bombay Sappers and  
Miners.

Sufficient for peace, but not for service. Each service company should have six non-commissioned officers attached. It would be a great matter to obtain a better and higher class of men sent out than have been arriving in India of late years. A good man is of great use; an indifferent one is worse than useless. I am afraid the good openings which are within the reach of a well-educated man in England will always act against the requirements of the Indian army.

Lieutenant-Colonel D. Limond,  
R.E.

Theoretically there are six European non-commissioned officers with each company of Bengal sappers. I think this number sufficient, but not excessive for service.

Captain W. North, R.E.

They would be amply sufficient if they were all the proper kind of men.

Captain W. T. Stuart, Interpreter  
and Quartermaster, Bengal Sap-  
pers and Miners.

I consider they are too many. I would reduce the number to 3 per company, viz., 1 sergeant-major, 1 sergeant and 1 corporal.

## 14. What are the daily duties of each rank of the 63 British non-commissioned officers with each of the Bengal and Madras corps ?

Major-General F. R. Maunsell,  
C.B., R.E.

The British non-commissioned officers are also employed in the park and workshops, and in training special classes of Natives in carpentry, &c., and in superintending works on equipment, drawing plans, &c.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

The British non-commissioned officers with the "Queen's Own" Sappers and Miners are as follows:—

- 1 sergeant-major.
- 1 quartermaster sergeant.
- 1 company sergeant-major.
- 20 sergeants.
- 5 corporals.
- 5 second corporals.

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With the exception of the staff sergeants, and sometimes a survey instructor, all are attached to and drill with companies. They work daily in the shops and schools. The sergeant-major has charge of the printing and lithographic presses. A sergeant has the lithograph school. One sergeant is assistant instructor in army signalling. Several are learning telegraphy and surveying; two are employed in the quarry, and several in the carpenter's and smith's shops.

Lieutenant-Colonel J. Hillis, R.E.,  
Commanding Bombay Sappers and  
Miners.

The non-commissioned officers with the Bombay Sappers and Miners are—

- 1 sergeant-major.
- 1 quartermaster sergeant.
- 1 assistant instructor of army signalling.



- 1 schoolmaster.
- 4 sergeants.
- 4 first corporals.
- 4 second corporals.

The sergeant-major and quartermaster sergeant at the ordinary duties of such non-commissioned officers. The sergeant-major has in addition the general charge of working parties employed at field-works, &c.

The assistant instructor of army signalling is employed at Poona under the orders of the officer instructor, whose duties have been already explained.

The schoolmaster is employed in the corps European schools in teaching such non-commissioned officers as desire to prepare themselves for the public works department; also in instructing men who remain with the sappers and miners in surveying, drawing, &c.

The remaining non-commissioned officers are employed either at their trades or superintending workshops, field-works, &c., and in the sub-marine mining and telegraph schools. Their working hours are eight per day.

All non-commissioned officers, except the staff sergeants, take their turn of regimental duty at New Jhansi and Kirkee.

Captain W. North, R.E.

The duties for all the ranks are the same in the Bengal sappers.

Field-works (or other military engineering) with their companies from eight hours to two or three hours a day, according to season; three hours drill per week; two hours musketry per week; school three hours a day, except when full work is going on. Also the usual orderly duties.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

They are mostly well employed in superintending the Native portion, as clerks and artizans, and ordinarily regimental routine.

15. How do you account for the apparent disproportion in the above numbers, *viz.*, the five companies of the Bombay Sappers and Miners have 16 British non-commissioned officers, and the 10 companies of each of the other corps have 63?

Major-General A. Fraser, R.E.

I cannot now say what is the reason for the disproportion of British non-commissioned officers with the various Indian corps.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

Until the 19th October 1870, there were 6 non-commissioned officers per company (except for the Aden company) with the Bombay corps of sappers and miners, and, as already stated, I am quite unable to give the reasons which caused the reduction of the number to three per company on the issue of the above order of 19th October 1870.

The company at Aden never has had, for some inexplicable reason, any European non-commissioned officers. Not reckoning the schoolmaster as a non-commissioned officer, and leaving out the Aden company, the numbers formerly arrived at would have been—

*Bengal—*

Ten companies, six non-commissioned officers per company	...	...	...	...	60
Staff	...	...	...	...	3
					—
					63

*Madras*

*Bombay—*

Four companies, six non-commissioned officers per company	...	...	...	...	24
Staff	...	...	...	...	3
					—
					27

In Bombay there are now four companies, three non-commissioned officers	...	...	...	...	12
Staff	...	...	...	...	3
					—

Total	...	...	...	...	15
					—

Lieutenant-Colonel D. Limond, R.E.

I am not aware of the reasons why so few European non-commissioned officers are attached to the Bombay sappers; but as sappers should in most cases be used as instructors or supervisors, I cannot imagine so small a number being sufficient for the wants of an army in the field when large European working parties are turned out.

Captain W. North, R.E.

I am unable to account for this.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

In Bengal, the British non-commissioned officer commands the Native officers and takes sole charge when no officer is present. In Madras and Bombay, the British non-commissioned officer superintends and aids, under the Native officer when no British officer is present.

16. Difficulty is supposed to be experienced as regards the retention of British non-commissioned officers with the sappers: is it so? What is your opinion of the utility of these non-commissioned officers? Can they speak the language? How long do they remain on an average with the corps? And what is the peculiarity of the sappers which necessitates the presence with them of British non-commissioned officers?

Are British non-commissioned officers still remanded from the public works department to the sappers for misconduct; and how many men have been so remanded during the last five years?

Lieutenant-General C. W. Hutchinson, Inspector-General of Military Works.

In regard to the utility of British non-commissioned officers for regimental duty with the sappers and miners, I have no experience and knowledge.

My experience of this class in the overseer grades of the military works branch has not been very great; but from my own knowledge of their work, and from the recorded opinions of the officers serving under my orders, I have formed an estimate of their qualifications not altogether favorable.

The men of class A are not in general equal to the military subordinates now educated at the Roorkee College; and although useful artificers are found in the ranks of class B, their want of education in estimating, plan-drawing, surveying, &c., militates against their more general usefulness. However, owing to the possession by the men of class A of general education, and by those of class B of technical skill in some branch of trade, these men, if passed through the Roorkee College course, should prove useful departmental subordinates, and might with advantage form a certain fixed proportion of the overseer grades of the military works branch.

According to Bengal Army Regulations, paragraph 2542, British non-commissioned officers cannot be remanded to the sappers for misconduct, except those belonging to the sappers and miners of the late local army.

During the last five years—

1 non-commissioned officer was remanded to the 41st Company Royal Engineers for *incompetence*.

1 do. do. to the sappers and miners for *misconduct*.

1 do. do. to the 41st Company Royal Engineers *to be invalided*.

Thus from the military works branch only one non-commissioned officer of royal engineers has been remanded for *misconduct*.

There are at present serving in the upper subordinate and barrack sergeant grades of the military works branch—

5 sapper and miner non-commissioned officers;

11 royal engineer non-commissioned officers; or 16 only in a total strength of 98 upper subordinates and 40 barrack sergeants.

Major-General F. R. Maunsell, C.B., R.E.

The style of work, and the energy, soon fall off without British non-commissioned officers. The Native sappers highly respect them, and have ever looked to them on difficult works.

Major-General A. Fraser, R.E.

My opinion, based on experience gained on former service, is as stated in my answer to question 13 in regard to European non-commissioned officers.

British non-commissioned officers belonging to the royal engineers are still remanded to the (41st Company) sappers for misconduct: during the last five years eleven men have been so remanded.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

Europeans of class B go to the public works department after a year with the sappers; but men of class A remain during their whole service with the sappers, unless appointed elsewhere at my request. The non-commissioned officers who come to Madras are not selected for talent, and those who have talent are not always steady. Good British non-commissioned officers are useful in keeping the company stores, for signalling and surveying, and in the shops. In the field they lay out tasks for British infantry, and look after the tools: for such duties they are specially required with the sappers. If the non-commissioned officers were carefully selected, they might be of real service in India; we want thorough masters of trades, whereas the carpenters, smiths, &c., that come from England are not superior as artizans to some of the sepoy. The European

non-commissioned officers do not excel as linguists; but as most of the "Queen's Own" sappers understand English, the want of foreign languages does not much signify. The British non-commissioned officers were useful in Afghanistan with British working-parties; but the detachment of two companies in Rampa preferred to have none. The C Company, having got rid by court-martial of two out of three who accompanied it to Rangoon, begs that no more may be sent to it. Only one British non-commissioned officer has been remanded to the sappers for misconduct during the last five years.

Colonel the Hon'ble C. J. Merri-  
man, C.S.I., Acting Secretary, Gov-  
ernment of Bombay, Public Works  
Department.

Lieutenant-Colonel R. deBourbel,  
R.E., Consulting Engineer to the  
Government of India for Guarant-  
eed Railways at Lucknow, now  
on special duty in Beluchistan.

I imagine the same difficulty is experienced as with the officers. They generally know some trade and are very useful in workshops or directing any description of work in the field. They come to the public works department; they usually do well; but occasionally badly; then they are remanded. Within the last five years three non-commissioned officers have been so remanded to their corps.

There must be some British non-commissioned officers with the Native sappers, both during peace and in war, to instruct the men and to see that difficult work is carried out properly. At present they are the only skilled and educated workmen attached to the companies. The full complement might be six to each company, including its field park. This number might in time of peace be reduced to four, who would suffice to instruct the men. The other two might find employment in the public works, survey and telegraphs, and be liable to be called out to field service whenever required.

Besides the obvious economy, the State derives the advantage of obtaining practical men in its service. Two years of practice are worth ten years of study in teaching a man how to survey; how to make a road, a railway or a canal; how to blast rocks, make a mine or a tunnel; how to manage labor; how to make available means go as far as possible; how to rely upon his own resources. This practical knowledge and habit of self-reliance, when applied in time of war to the military engineering required in the field, is of the utmost value.

In order that the British non-commissioned officer may keep up the knowledge of military duties and work as well, it might be arranged that, out of every ten years, he should serve at least two years with the sappers, returning to some company for this purpose, his place in the public works department being taken by another. The public works, survey and telegraphs might thus contain the reserve of non-commissioned officers from which to make up the war complement not only of the companies but of the siege-parks, telegraph, pontoon trains, &c., that may be formed, and to fill up any war casualties.

If 100 non-commissioned officers are required ordinarily for 25 companies in the three presidencies, there should be 100 more employed in the public works, survey and telegraphs throughout India.

The great bane of the British soldier employed in solitary situations is drink. When alone, ill or depressed in mind from some cause, with no one to talk to or to cheer him up, the man shrinks from his work and seeks refuge in the bottle. Many a man who has failed as a public works overseer in this manner and is remanded to military duty, becomes a good steady soldier under military control and in the society of his comrades. I should deprecate strongly any change in the present practice.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

Formerly there was considerable difficulty in getting men to stay with the sappers and miners, but of late years the public works department has become unpopular among them, and most of them now stay with the sappers and miners and 43rd Company, Royal Engineers.

These non-commissioned officers are not, as a rule (as already stated), the best class of royal engineers. Indian service is not popular at home, especially now that men have great opportunities of getting on as military foremen of works, &c., also in the museums and in well-paid and interesting appointments at Chatham, &c. Of their utility there is no doubt, during peace in superintending works in photo, litho, and printing schools, &c., and on service they are absolutely necessary; for though Natives do well enough on ordinary occasions, they are apt to fail in an emergency, nor do they, as a rule, carry out work with energy, except under European supervision. Any one watching the best Native workmen in his slow methodical manner, and the energy, force, and attention on the same as displayed by even an ordinary European, will grasp more fully what I mean.

I consider European non-commissioned officers necessary to be attached on service to each company.

Their knowledge of the language is fair, much better as regards conversation than as regards reading, writing, &c. In fact, it is very curious how soon they are able to communicate with the Native on all matters.

All the men of the royal engineers who come to India have to serve their full time in the country; but any man may enter the public works department who wishes to do so, provided he is able to pass the educational and practical tests required in the department. Of late years hardly any men have entered the public works department, while a number have returned at their own request.

In a Native regiment the cases where a Native officer or non-commissioned officer is called upon really to use his own judgment, in fact to use his wits, are few and far between; but in the sappers it is far different. In almost every piece of work he has to think how it can best be done, and so on; and it is on this very point where readiness of resource and decision of character are required that an ordinary Native fails, but a European non-commissioned officer would give a fair solution.

It is, however, only fair to point out that the Natives have not had the opportunities that the European non-commissioned officers have had. The sapper's training at Chatham is probably the best in the world, while here in India the want of materials, instructional officers, &c., militate seriously against the efficiency of the Native sapper.

British non-commissioned officers are still remanded from the public works department. One has been so remanded during the last five years; but several have voluntarily applied to return.

Lieutenant-Colonel W. Hichens,  
Commanding Royal Engineers,  
Southern Afghanistan Field Force.

This would not be the case if the companies were employed on the public works; the better class of non-commissioned officers would then be in receipt of better pay as superintending works.

The British non-commissioned officers are of great use in war time in superintending working parties of the line, and are also wanted to overlook the work of the Native sappers and Native line working-parties.

Lieutenant-Colonel D. Limond,  
R.E.

The fact of being called upon to supervise work executed by European working-parties appears to me sufficient reason; but, apart from this, sappers are liable at times to be called upon individually to perform duties attended with great risk, and in the absence of any European companies, it appears right to have a certain proportion of Europeans with each Native one.

British non-commissioned officers are not remanded unless they belonged to the corps of royal engineers.

Captain W. North, R.E.

This difficulty does not exist now, as the men who come out have volunteered for the sappers, and no civil department is open to them.

Not being specially selected men, a number of them are inefficient.

Most of them soon learn to speak the language fairly.

Under present circumstances the average may be put down as at least ten years.

Very few Natives have enough of intelligence to be put in charge of the smallest of our working-parties, especially in war, when a mistake might be of enormous importance.

When under Native superintendence only, work never goes on with the vigor with which it should. I don't say this of our men only. I have had a number of working-parties of other Native troops under me, and the result was always the same.

Much trouble would be saved if British non-commissioned officers could be dispensed with, but they *cannot* be.

British non-commissioned officers are still remanded from the public works department. During the last five years 11 have been so remanded.

Captain J. Dundas, R.E.

British non-commissioned officers of royal engineers are liable to remand to the sappers for misconduct. The instances of such remand of late years have been, I believe, as follows:—

1874.	1875.	1876.	1877.	1878.	Total.
3	8	3	1	2	11

But the employment of royal engineer soldiers in the public works department is likely to be smaller in future than it has been. Formerly men of two classes were admitted—

(a) men supposed to be of good education, and

(b) practical artisans able to teach their trade.

It was found that the (a) men were not superior to men taken from the ranks of the army generally and passed through the Thomason College, while (b) men from want of education were unfit for many of the duties of the department. A representation of these facts was made by public works department in June 1873 to the military department, and by that department to the Secretary of State, whose despatch, No. 46 of the 6th February last, promised to take the matter into consideration.

Captain W. T. Stuart, Interpreter  
Quartermaster, Bengal Sappers  
Minera.

The class of British non-commissioned officers lately received are not worth retaining; they could not get away if they wished, their education

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's  
Own" Sappers and Miners, Madras.

The Native officers of the "Queen's Own" Sappers and Miners are more efficient than officers that could be obtained in any other way than by the present system. Most of the officers are hale and hearty men; and the tendency is to promote young men. His Excellency the Commander-in-Chief always accepts my recommendations for promotion; and if Native officers were found to be too old for their work, the fault could be corrected by granting commissions to younger men. The oldest subadar has served 34 years, the youngest (fifth) 20 years; the youngest jemadar 18 years. It is noteworthy that caste is not considered in selection of officers, non-commissioned officers, or men.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

It might be advantageous to obtain the services of some cadets of respectable families by a system of nomination combined with a certain standard of education, more for the sake of raising the social status of the Native officer than anything else. But though it appears at first sight a most excellent thing to obtain younger men as officers, this cannot be carried into execution until the whole pension system is completely altered; and early pension granted apparently at present is a most unlikely course of procedure. For instance, in order to obtain a number of the smartest and most intelligent men, a commissioned officer promotes men of 8 to 10 years' service. The regiment might be temporarily improved (though from my experience I doubt it, for, unless he happens to be a man of exceptional force of character, he would be far too young in his family and caste to carry any private weight, and hence, though smart on parade, would be nearly powerless in the lines); but as under the existing rules for pension he cannot retire till after 32 years' service, his early promotion shuts out all advancement to future aspirants, many of whom may be better and more qualified men. Meanwhile the regiment deteriorates considerably from having old Native officers.

I would most certainly reduce the long service for pension still further, viz., to 26 years, on the grounds that a good average character of intelligence and smartness is attainable by the steady flow of promotion secured by the selection of men not too old to have become effective, nor so young as to give a chance of stopping the flow beyond a fair time: by this time the men of character will have shown themselves prominently. But for this purpose time is necessary; for it must be remembered that a Native remains in a subordinate and childish position as regards his household and caste for a much longer period than do Europeans.

With regard to the cadets of higher families, the difficulty appears to be the fewness of the appointments. One or two men so promoted would close the opening possibly for twenty years; the present pay would never suffice. To raise it would scarcely answer either.

Lieutenant-Colonel W. H. Burton,  
R.E.

I am of opinion that if any Native officer be found inefficient from age or from any other cause, he should be dealt with by means of a half-pay or pension list or otherwise.

Captain W. North, R.E.

We have got rid of all our very old Native officers.

As I believe the system of direct commissions would be impossible for this corps, I would not recommend a change from the present one.

Captain W. T. Stuart, Inter-  
ceptor and Quartermaster, Bengal  
Sappers and Miners.

The old Native officers are under the present régime actually shelved. Still many do right good service and encourage the men. I have seen and served with many good Native officers, whom I loved and respected as much, and sometimes more, than I did my own countrymen, and could get them to do anything. In war time they are simply, from their experience and bravery, invaluable. I esteem them very much.

20. What is the standard of efficiency in military engineering for the several ranks of Native officers and non-commissioned officers?

Major-General A. Fraser, R.E.

When serving with the corps at the siege of Mooltan, I found the men well up in all the branches of sapping and mining under fire. We are, however, living now in a more scientific age.

Colonel H. N. D. Prendergast,  
Commandant "Queen's Own"  
Sappers and Miners, Madras.

No exact standard has been laid down as a qualification for the several ranks. Privates of any standing are appointed lance-naiks for gallantry in the field, or, if less than eight years' service, on the recommendation of the officer commanding the company.

Except for gallantry, no naik is made havildar, unless he is considered by his company officer to be the best naik in the company.

Similarly, no havildar obtains a commission unless he is reported to be the best havildar in his company, and is considered by me to be fit for promotion.

All the officers have received instruction in field-works for many years at Bangalore, have had practice in road-making and other work. Most of them have practised military engineering in the field in one or more campaigns.

More than a third of the Native officers are good surveyors; some of them are excellent plan-drawers.

Lieutenant-Colonel J. Hills, B. E.,  
Commanding Bombay Sappers and  
Miners.

Captain W. North, B. E.

Captain W. T. Stuart, Inter-  
preter and Quartermaster, Bengal  
Sappers and Miners.

They have all to graduate in the regular course of field-works, as laid down in the regular military book of instruction for Chatham.

Ability to lay out and superintend all ordinary works of military engineering. No exact standard is laid down, but more is expected from a havildar than a naik, and so on.

They—many at least—have a fair idea of military engineering. I noticed at Badli-ka-Serai and round about Delhi in 1857 that they took up the best positions and built batteries and other field-works as if they had been at practice at Roorkee.

21. From what sources are the sappers recruited; and can you suggest any improvement in the system?

Major-General F. R. Maunsell,  
G.B., B.E.

I would not introduce any sweeping differences, but I would increase the Punjabi element, giving four Hindustani, three Punjabi, and one trans-Indus. I would also introduce extra pay instead of working pay, which gives great labor for no purpose, and is thought by many to be a principle likely to injure soldierly feelings. I have little doubt but that the extra pay principle will be adopted altogether as it has partly in England. And thirdly, I would limit the detachments to that compatible with efficiency. These three measures would bring better men.

I would beg to add to answer 21 that I believe a special Jât company of sappers would be desirable and efficient amongst the four-eighths Hindustani strength.

Major-General A. Fraser, B.E.

In recruiting the sappers, it is essential that the recruits should be obtained from the same classes as the rest of the regular army. The greater portion of the manual labor required with an army in the field must be performed by working-parties from the regiments, under the guidance of sappers. It is impossible to maintain a sufficient number of sappers to do all the work unaided; and it would be impolitic, even if it were possible, to abstain from utilizing the services of the regular infantry on works. If the sappers are of a lower caste than the other infantry soldiers, there will always be risk of the ordinary sepoy giving trouble and refusing to work; but if they are of the same caste as the sappers, all ground for refusing to work will be taken away.

Colonel H. N. D. Prendergast,  
B.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

The sappers are recruited principally from the relations of sappers, but any one is admitted into the ranks who seems likely to become a good sapper, who has the regulated measurements, and can turn out a good day's work of any kind. The best recruits are transferred to the ranks from the recruit-boy and pension-boy establishments of the regiment, so far as intelligence is concerned; but they are seldom very powerful men, owing to having been starved when children.

Lieutenant-Colonel J. Hills, B.E.,  
Commanding Bombay Sappers and  
Miners.

The recruits are almost invariably recruited at head-quarters. Any man of any caste, so long as he comes within our requirements, is accepted. The regimental rule is to accept men who are not tradesmen of over 5' 8" in height, tradesmen according to their skill, if only ordinary not under recognized height.

The only improvement I can suggest is to request officially the assistance of the public works department officers in obtaining young tradesmen, whom we have great difficulty in obtaining on account of the general high average wages of this presidency. The Mahrattas, &c., of the Concan and Malwan furnish the majority of the corps recruits.

Captain W. North, B. E.

Five-eighths from Hindustan.

Two-eighths from Punjab.

One-eighth from trans-Indus.

I believe we ought to recruit almost entirely in the Punjab and trans-Indus to eliminate all chance of water and food difficulties which Hindustanis are apt to make, as this corps or part of it goes on every campaign.

Captain W. T. Stuart, Inter-  
preter and Quartermaster, Bengal  
Sappers and Miners.

From all sources; mostly from Oudh and Punjab, but many from Dehli and Gurgaon. Some good men are from Hazara, and one company is Pathan or trans-Indus.

22. Do you consider that the recruits obtained for the sappers are the best procurable of the class ordered; if not, what suggestions can you make for improving their quality.

Major-General A. Fraser, B.E.

The recruits obtained for the sappers used to be of the very best quality. In the siege of Mooltan the sappers did as good work as could be expected, whether in double, single or flying sap or mining; they were steady under fire, and always eager to volunteer for any dangerous duty in the front. What they are at the present time I am unable to state from personal experience.

Colonel H. N. D. Prendergast,  
Commandant "Queen's Own"  
Sappers and Miners, Madras.

The sapper recruits seem to be the best procurable for the money. If the pay were higher, the choice would be greater; but perhaps the cheapest way of obtaining good recruits would be to increase the strength and pay of the boy establishments. By doing this, the number of intelligent recruits would become greater, and the intelligent recruits would be more muscular.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

No; because, while the sappers are paid according to rates prevailing in Bengal, the tradesmen and laborers receive pay in accordance with Bombay rates. A laborer in Bengal receives 2 annas; a Bombay man 3½ to 4 per day. A syce in Bengal Rs. 5 a month; one in Bombay Rs. 9 to 10. A tradesman in Bengal receives from ¼ to 6 annas daily pay, in Bombay he receives from Rs. 12 to 18. Hence, while a sapper's pay in Bengal is equivalent to that of a fair tradesman, it is little, if anything, above a common coolie in Bombay, and forms no inducement to the higher talent or superior workman. In the torpedo company sea-faring men could not be induced to enlist, as their usual pay was about Rs. 14 per mensem with freedom of life.

I can see no way of greatly improving matters, unless the pay of the sapper is slightly raised. However, we do manage to obtain a certain number of tradesmen of sorts—by no means the first men, but still tradesmen. The following table gives the trades, &c., of men, enlisted during the last year :—

Draughtsman	...	...	...	1
Carpenters	...	...	...	3
Moochecs	...	...	...	2
Painters	...	...	...	2
Rope-makers	...	...	...	7
Tinman	...	...	...	1
Mason	...	...	...	1
Sawyer	...	...	...	3
No trade	...	...	...	22
			Total	42

Captain W. North, R.E.

The quality of the recruits has fallen off I believe, especially since the pay in the infantry has been so much improved. The men shrink from facing the hard work before them in the sappers for the small additional pay, when they know they get ample in the infantry.

The only suggestions I can make are—

Increase of pay; substitution of consolidated extra duty pay for working pay; detachment of an experienced *British* officer to travel about the recruiting districts in the cold weather.

Captain W. T. Stuart, Interpreter  
and Quartermaster, Bengal  
Sappers and Miners.

The men are mostly good; but I noticed better men in the Punjab and frontier corps during the late campaign. Better pay would procure better men; but sappers have to work very hard, and hard toil is distasteful to many of the fighting classes.

23. State the districts (mentioning the civil districts or collectorates in which the villages of the men are situated) from which you chiefly obtain your recruits.

Colonel H. N. D. Prendergast,  
Commandant "Queen's Own"  
Sappers and Miners, Madras.

The recruits are chiefly drawn from—

Mysore.  
North Arcot.  
Madura.  
Tanjore.  
Trichinopoly.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

Nowhere in particular. Men are generally enlisted at head-quarters. Perhaps the majority come from the Concan and Malwan. They come in twos and threes, and are enlisted if they give the necessary results.

Captain W. North, R.E.

Our recruits are pretty equally obtained from the whole of the North-Western Provinces and Punjab, so that no particular districts can be stated.

Captain W. T. Stuart, Interpreter  
and Quartermaster, Bengal  
Sappers and Miners.

No means of getting correct information on this point. I enlisted about 200 good men in a very short time last December from the districts noted in answer No. 21.

24. If the sappers were ordered on service, what number of men are there now serving who would be unfit for active service either on account of age or on account of being recruits?

Colonel H. N. D. Prendergast,  
Commandant "Queen's Own"  
Sappers and Miners, Madras.

About 16 per cent. would probably be found unfit for active work. The recruits are in the recruiting depôt, not in the service companies.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers and  
Miners.

As a rule, men over 20 years' service and under 3 years are not fitted for the active work of a campaign. The former is well past work; the latter has not the training or the stamina. The following table shows the state of the corps at present:—

	Native officers.	Havildars.	Naiks.	Privates.	Buglers.	Bhisties.
Over 20 years ...	8	15	22	58	2	...
Between 3 and 20 years...	2	5	18	208	5	6
Under 3 years ...	...	...	...	118	3	4
Total ...	10	20	40	384	10	10

This shows about 50 per cent. unfit for service, viz.,—

105 over 20 years' service,

125 untrained recruits,

Total 230 unfit for service,  
out of a total of 474.

Captain W. North, R.E.

None on account of age; fifty-eight on account of being recruits. There are probably about fifty more unfit, from being broken down by the late hard service. The exact number could not be obtained without reference to Kandahar and other distant stations.

Captain W. T. Stuart, Interpreter  
and Quartermaster, Bengal  
Sappers and Miners.

There are a good many men who, stationed in the Peshawar district, at Quetta, Kandahar, have suffered and would suffer more if exposed to a bad climate.

25. At what age do you consider Native sappers become unfitted for the hard work of a campaign?

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners Madras.

They are seldom fit for the hard work of a campaign at a greater age than 42.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers  
and Miners.

At 40 years of age as sappers, 45 as officers. About 20 years of service is sufficient for the majority.

Lieutenant-Colonel W. H.  
Burton, R.E.

I should think Native sappers, artificers, would be unfit for a campaign generally at the age of 45; and it would be desirable to have all the excavators under 40.

Captain W. North, R.E.

A sepoy becomes inefficient at about 38 years of age; a non-commissioned officer at 45 years. Native officers are often very efficient up to 55 years.

Captain W. T. Stuart, Interpreter  
and Quartermaster, Bengal  
Sappers and Miners.

He gets, if not promoted, very shaky at about 15 years' service and looks to pension.

26. What is the exact course of drill and instruction actually undergone by the Native portion of the sappers and miners?

Major-General F. R. Maunsell,  
C.B., R.E.

It was my custom when in command to direct a shortened general service course of training, based on the regular first course, should be gone through by every company under its own commander every year; also that commanders of companies should put their men through special courses, arranging for details, materials, &c., with the superintendent of instruction, all being approved by the commandant. Recruits also go through a course of gymnastics and swimming.

Colonel H. N. D. Prendergast,  
R.E., Commandant "Queen's Own"  
Sappers and Miners, Madras.

Every recruit learns the infantry field exercise and the sapper rifle exercise. He undergoes a gymnastic course of 40 to 50 days, and has about 7½ hours work at military engineering till passed into the ranks, generally after about a year; but lately they have been passed in nine months, as it was necessary to pass them out quickly.

Lieutenant-Colonel J. Hills, R.E.,  
Commanding Bombay Sappers  
and Miners.

First, drill one year (squad, &c., as is laid down in the field exercise, and afterwards musketry exercise); secondly, field-works one year (see paper attached, marked F.W.1); thirdly, one year's course of the workshops, where he is instructed in some particular trade. The company annual course is shown in paper F.W.2.