

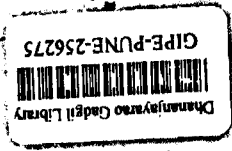
No. _____ Field-work class.

HER MAJESTY'S BOMBAY SAPPERS AND MINERS.

RECRUIT COURSE.

W. F. I.

Regimental number.																																																																																																																																																																																																																																																																																																																																																													
Rank.																																																																																																																																																																																																																																																																																																																																																													
Name.																																																																																																																																																																																																																																																																																																																																																													
Company.																																																																																																																																																																																																																																																																																																																																																													
Trade.																																																																																																																																																																																																																																																																																																																																																													
Date of enlistment.																																																																																																																																																																																																																																																																																																																																																													
	<table border="1"> <thead> <tr> <th></th> <th>ATVALOK.</th> <th>DARVOKA.</th> <th>MARVA.</th> <th>BADVOKA.</th> <th>MISCHILANVOKA.</th> </tr> </thead> <tbody> <tr><td>Use of tools.</td><td>0</td><td>3</td><td>6</td><td>10</td><td>3</td></tr> <tr><td>Working-parties.</td><td>1</td><td>2</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Trenches.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Batteries.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Magazines.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Sapping.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>General principles.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Clearing ground.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Hasty entrenchments.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Obstacles.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Improved defences.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Brushwood.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Revetments.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Field geometry.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Field-works.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Detail of field-works.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Field redoubt.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Defence of villages and woods.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Defence of houses.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Shafts, commencing.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Shafts, frames.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Shafts, cases.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Galleries, cases.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Galleries, frames.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>False frames.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Great and blinded galleries.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Loading and tamping.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Firing charges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Blasting.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Fougasses and hand-gear.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>General principles.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Knitting and splicing.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Lashing and use of spars.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Trestle bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Frame bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Pile bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Tension bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Suspension bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Floating bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Bowling.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Pontooning.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Barrel piers.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Rise and fall of tide.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Bridge of rafts.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Bridge of boats.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Preliminary.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Laying railway lines.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Sidings and platforms.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Dismantling.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Hasty railway bridges.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Road construction.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Laying out camp.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Boring for water.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Bivouacs.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Hutting troops.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Charge of stores.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>Special.</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr> </tbody> </table>		ATVALOK.	DARVOKA.	MARVA.	BADVOKA.	MISCHILANVOKA.	Use of tools.	0	3	6	10	3	Working-parties.	1	2	1	1	1	Trenches.	1	1	1	1	1	Batteries.	1	1	1	1	1	Magazines.	1	1	1	1	1	Sapping.	1	1	1	1	1	General principles.	1	1	1	1	1	Clearing ground.	1	1	1	1	1	Hasty entrenchments.	1	1	1	1	1	Obstacles.	1	1	1	1	1	Improved defences.	1	1	1	1	1	Brushwood.	1	1	1	1	1	Revetments.	1	1	1	1	1	Field geometry.	1	1	1	1	1	Field-works.	1	1	1	1	1	Detail of field-works.	1	1	1	1	1	Field redoubt.	1	1	1	1	1	Defence of villages and woods.	1	1	1	1	1	Defence of houses.	1	1	1	1	1	Shafts, commencing.	1	1	1	1	1	Shafts, frames.	1	1	1	1	1	Shafts, cases.	1	1	1	1	1	Galleries, cases.	1	1	1	1	1	Galleries, frames.	1	1	1	1	1	False frames.	1	1	1	1	1	Great and blinded galleries.	1	1	1	1	1	Loading and tamping.	1	1	1	1	1	Firing charges.	1	1	1	1	1	Blasting.	1	1	1	1	1	Fougasses and hand-gear.	1	1	1	1	1	General principles.	1	1	1	1	1	Knitting and splicing.	1	1	1	1	1	Lashing and use of spars.	1	1	1	1	1	Trestle bridges.	1	1	1	1	1	Frame bridges.	1	1	1	1	1	Pile bridges.	1	1	1	1	1	Tension bridges.	1	1	1	1	1	Suspension bridges.	1	1	1	1	1	Floating bridges.	1	1	1	1	1	Bowling.	1	1	1	1	1	Pontooning.	1	1	1	1	1	Barrel piers.	1	1	1	1	1	Rise and fall of tide.	1	1	1	1	1	Bridge of rafts.	1	1	1	1	1	Bridge of boats.	1	1	1	1	1	Preliminary.	1	1	1	1	1	Laying railway lines.	1	1	1	1	1	Sidings and platforms.	1	1	1	1	1	Dismantling.	1	1	1	1	1	Hasty railway bridges.	1	1	1	1	1	Road construction.	1	1	1	1	1	Laying out camp.	1	1	1	1	1	Boring for water.	1	1	1	1	1	Bivouacs.	1	1	1	1	1	Hutting troops.	1	1	1	1	1	Charge of stores.	1	1	1	1	1	Special.	1	1	1	1	1
	ATVALOK.	DARVOKA.	MARVA.	BADVOKA.	MISCHILANVOKA.																																																																																																																																																																																																																																																																																																																																																								
Use of tools.	0	3	6	10	3																																																																																																																																																																																																																																																																																																																																																								
Working-parties.	1	2	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Trenches.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Batteries.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Magazines.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Sapping.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
General principles.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Clearing ground.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Hasty entrenchments.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Obstacles.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Improved defences.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Brushwood.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Revetments.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Field geometry.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Field-works.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Detail of field-works.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Field redoubt.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Defence of villages and woods.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Defence of houses.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Shafts, commencing.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Shafts, frames.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Shafts, cases.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Galleries, cases.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Galleries, frames.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
False frames.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Great and blinded galleries.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Loading and tamping.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Firing charges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Blasting.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Fougasses and hand-gear.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
General principles.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Knitting and splicing.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Lashing and use of spars.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Trestle bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Frame bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Pile bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Tension bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Suspension bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Floating bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Bowling.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Pontooning.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Barrel piers.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Rise and fall of tide.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Bridge of rafts.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Bridge of boats.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Preliminary.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Laying railway lines.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Sidings and platforms.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Dismantling.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Hasty railway bridges.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Road construction.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Laying out camp.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Boring for water.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Bivouacs.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Hutting troops.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Charge of stores.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
Special.	1	1	1	1	1																																																																																																																																																																																																																																																																																																																																																								
	<table border="1"> <tr> <td>Full size.</td> <td></td> </tr> <tr> <td>Model.</td> <td></td> </tr> </table>	Full size.		Model.																																																																																																																																																																																																																																																																																																																																																									
Full size.																																																																																																																																																																																																																																																																																																																																																													
Model.																																																																																																																																																																																																																																																																																																																																																													



F. W. 2.

HER MAJESTY'S BOMBAY SAPPERS AND MINERS.

ANNUAL FIELD-WORKS COURSE.

No. _____ Company _____
 { Commenced _____
 { Completed _____

SUBJECT.	DAYS.		
	Model.	Full size.	Total.
Brushwood ... ..	...	4	4
Hasty entrenchments ... ..	...	4	4
Hasty field redoubt	1	3	4
Parallels, &c.	2	6	8
Sapping	2	6	8
Batteries and magazines	2	6	8
Mining and firing charges	1	8	9
Bridging	2	8	10
Cask bridges, rafts, &c.	1	8	9
Pontooning ... ..	...	8	8
Railway and road work ... ..	...	4	4
Miscellaneous ... ..	...	5	5
Native officer's projects ... ..	...	7	7
Total ... ..	...	...	88

Lieut., R.E.,

Commanding No. _____ Company _____

Captain W. North, R.E.

For the first six months of service, recruits drill in musketry, exactly as for infantry.

For the next six months military engineering course, as detailed in accompanying statement marked *A*.

On the completion of the above, the recruits are sworn in, and posted to the service companies.

The service companies, when not on special work, are employed as follows:—

Drill... ..	... ..	3 hours a week.
Musketry ... ..	... ..	1 or 2 hours a week.
Field works } ... ..	... ..	6 to 8 hours a day in
and military } ... ..	... ..	winter.
engineering } ... ..	... ..	2 or 3 hours in summer.
School ... ..	... ..	2 or 3 hours a day ex-
		cept when at full
		work.

The field-works and military engineering is generally as detailed in annexure *A*.

The special companies, pontoon and telegraph, are principally exercised at their own special work.

There are besides special classes for instruction in rough masonry, carpentry, &c.

A.
Individual progress returns
of the recruit squad, Ben-
gal Sappers and Miners. } Course commenced
 } Course completed

COLD-WEATHER COURSE.

7th October to 15th January, or 15th January to 21st April.

Destroying ... ..	...	...	2
Making—			
Fascines ... ..	...	...	3
Gabions ... ..	...	...	4
Sap rollers ... ..	...	...	1
1st parallel and approaches—			
Tracing and extending parties ... ..	...	...	1
Forming ... ..	...	...	3
Sapping—			
2nd parallel in flying sap ... ..	...	...	3
Single ... ..	...	...	3
Double ... ..	...	...	2
Musketry holes ... ..	...	...	1

Batteries and revetments—		
Tracing	...	10 days.
Building	...	10 "
Fascine	...	10 "
Gabion	...	10 "
Sand-bag	...	10 "
Sod	...	10 "
Laying platforms	...	2
Magazine—		
Building	...	4
Mining—		
Sinking shafts	...	4
Driving galleries	...	6
Loading and connecting charges...	...	1
Tamping	...	1
Boring, blasting, &c., as much as possible.	...	2
Knottling and lashing	...	3
Temporary bridges, including pontooning	...	4
Throwing up redoubts	...	4
HOT-WEATHER COURSE.		
21st April to 1st July or 1st July to 7th October.		
Spliaing ropes	...	2
Rowing	...	6
Cask bridges	...	4
Jenes' gabions	...	1
Escalading	...	3
Stockading	...	2
Night work on 1st parallel	...	3
Biraga trestle	...	2
Gunpits and shelter trench	...	4
Aerial telegraph	...	2
Rough masonry and carpentry, &c., in addition.	...	

*. Remarks on general proficiency. The six best of each squad to be marked.

The sappers are well drilled under European supervision and are equal to any regiment in the service, although the Goorkha corps have a more soldiery bearing.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

27. How long does it take to make a Native a thoroughly trained sapper?

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

A Native sapper passes his drill and field-works and gymnastic courses in about a year; but in that year he has learnt no trade, and may have lost dexterity in any trade that he knew before. In his second and third years he will probably acquire a knowledge of some trade, and each year will go through a short course of military engineering. After three years he may be considered a trained sapper.

Lieutenant-Colonel J. Hills, R.E., Commandant Bombay Sappers and Miners.

Three years to do it properly.

Captain W. North, R.E.

One year; but he may be said to improve for seven or eight years after this, if with a company kept at military training.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

Two years is sufficient to train him thoroughly in his various duties, but in a year a useful sapper could be turned out. Two years' severe training make many men disgusted with the service. This was found to be the case with British sappers years ago at Chatham.

28. Is the training of the sappers and miners such as to produce the corps in the most efficient state for service in the field; if not, what suggestions have you to make with a view of obtaining a higher standard of efficiency?

Major-General F. R. Maunsell, C.B., R.E.

Addition to Captain North's, "so that the existing system of spreading the corps in detachments results in the corps not being produced efficient for service." I do not say it has not done good work, but it is not on a par as to chances of arriving at efficiency with other branches.

Major-General A. Fraser, R.E.

I think that the standard of efficiency of the corps as a whole would be raised if more attention were paid to field-works of all descriptions, even at the sacrifice, if necessary, of drill.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

The efficiency of the corps would be increased if staff officers were so well paid that first-rate officers, royal engineers, now in the public works department, would apply for them and remain in the appointments,

Colonel the Honorable C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

Lieutenant-Colonel R de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

Captain W. North, R.E.

Captain J. Dundas, R.E.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

20. Is an uniform system followed in the three presidencies in engineer equipment and training of sappers, &c.?

Major-General F. R. Maunsell, C.S.I., R.E.

and if the number of staff appointments was greater, and if only good draftsmen were sent as sergeants and corporals to the corps. Nevertheless, the corps is now trained so as to be efficient.

Inasmuch as they are invariably called upon to perform heavy work on service in the field, I think their efficiency would be considerably improved by employing them in rotation upon public works during times of peace.

I think that similar employment in the public works, survey and telegraphs of the Native officers, and of the Native non-commissioned officers of the sappers and miners would make them more efficient and practical, and therefore more useful in time of war.

Assuming a given number of each as the war complement, and part of that number as sufficient to remain with the companies in time of peace, the remainder and a reserve of as many more besides to fill up war casualties, supply engineer parks, telegraph, pontoon trains, &c., might be employed during peace on public works generally, a similar rule applying of two years' service out of every ten years with the companies to keep up the knowledge and practice of military duties.

I notice a great difference in the Bengal Sappers and Miners since 1861-65, due, I suppose, to some change in the mode of military training. During the Bhootan campaign and afterwards, in hutting the troops the men were a most useful set, skilled artisans, ready to turn their hand to anything, never made difficulties,—a most capable and willing body. In this Afghan campaign there is not the same alacrity or capability. The men know intrenching work and are handy with the pick and shovel; they seem to have become more pioneers and less skilled artisans, and to have more military duties to attend to.

The change in their military training appears to have made them better combatants at the expense of efficiency in other things.

In addition to and after the course the recruits pass through, each company of Bombay sappers and miners should go through an annual course of field works, lasting about four months, with the exception of the torpedo company, for whom the course will have to be shortened. The torpedo company's sub-marine mining instruction lasts also from four to five months every year.

The above training, when carried out, is well calculated to turn out (and does so) a really efficient sapper; but it has been found impossible under the present inefficient state of men, training establishment, training plant, and materials to teach them as is proper and desirable.

With the training establishment suggested, and a little more liberality in the matter of stock and plant, there is no reason why a highly effective corps should not be turned out fully equal to all requirements of even the present scientific period.

The present system of training is highly calculated to produce efficiency in the field, and I have no suggestions to make.

The numerous detachments, some in most unhealthy stations, operate most unfavorably however; and these are generally the first to be taken for service.

I have no hesitation in saying that, with a view to efficiency on service, as many companies as possible should be kept at head-quarters, and that these should always be taken first for service.

I have seen little of the sappers of late years; but, from what I heard, I am inclined to think that too great attention has been paid to drill at Roorkee. It would be a good thing, I think, if the corps were for a few months in the year employed on public works. They might be camped out near some large work, and the commandant might be paid the contract value of the work done, which he might distribute as he chose among the men. A new canal would be a suitable work.

I consider that *British* officers should take the instruction in hand and not leave it to a staff officer and his subordinates.

The equipments of the Bengal sappers have been ordered for all three corps, that is the engineer equipment and arms. The shortened sword, or knife, considered so great an improvement, does not seem to have been introduced in the Madras companies which were in Afghanistan. *See* Captain North's papers also.

Major-General A. Fraser, R.E.

The Madras sappers, with whom I have served in Burma, used not to be worked altogether on the same system as those of Bengal: the detached companies were commanded by infantry officers, and the classes of men were as regards caste different to those of the Bengal sappers. But I got capital work out of them, especially when the general officer allowed them a tot of rum after a hard day's work in the field.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

No.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

There are differences in each presidency. Bombay is terribly deficient in all training plant, pontoons, telegraph, kit, &c., and requires a third special staff officer,—a superintendent of instruction.

Captain W. North, R.E.

I believe not.

30. What military works have they been employed on during the last five years?

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

Construction of cavalry barracks at Trimulgherry under the Public Works Department; cantonment roads at Secunderabad; smiths and carpenters have been employed in the arsenals of Rangoon and Secunderabad; the pagoda defences at Rangoon and construction of rifle-ranges; also on the Rangoon-Prome Railway.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

The men of the corps were employed in building the new lines at New Jhansie in 1873.

The company at Aden is employed by the Public Works Department in building and in repairs to the fortifications.

In Cyprus the two companies were employed at first in preparing the camp at Chiflik Pasha (three regiments, European infantry, and battery of artillery, one regiment, Native cavalry, and two companies sappers and miners) and making arrangements for the water-supply.

At Larnaka they were employed on road-work for a short time, while for the last two months they were in the island the companies were employed in road-making with large working parties of Greeks and Turks.

In Afghanistan the two companies were first employed in constructing bridges and making the road from Jacobabad to Dadur, thence through the Bolan up to Dozan.

They have constructed small canals and other watering arrangements for the troops at Dozan.

Captain W. North, R.E.

The usual military works in the Jowaki campaign and Afghan campaign. Preparing ground for the station at Cherat and also Murree, work on the fortifications at Quetta, torpedo and defence work at Calcutta.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners

Details are lent to the various schools of instruction in Bengal and are highly spoken of, but they do not appear to have been much used on civil works of late years.

31. The following sums are entered in the budget estimates for 1879-80:—

Bengal sappers and miners, working pay to Europeans and Natives Rs. 38,903.

Madras sappers and miners, working pay to Europeans and Natives „ 25,000

Bombay sappers and miners, working pay to Europeans and Natives „ 23,040

Please explain the nature of the work performed.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

The working pay included in the budget for Madras is expended, first, in instruction of recruits and sappers as carpenters, smiths, armourers, stone-cutters, quarrymen, brickmakers, bricklayers, potters, printers, lithographers, bookbinders, photographers, surveyors, sawyers, &c., &c., and in field works, bridging, sapping, mining, &c., and afterwards in carrying on useful works. A great portion of the roads near Mercara were made by the sappers. Their own workshops have been built by them. They assisted in building the Trimulgherry barracks. At present they are making a cholera camp for Europeans near Thayetmyd. They have erected stockades in Rumpa, made roads and defensive works in Afghanistan, roads in Secunderabad, studied sub-marine mining at Bombay. They have built a strong cash room at Bangalore of bricks made by themselves. They have constructed a rifle range at Rangoon, and worked at the pagoda defences. They have also worked as smiths and carpenters at arsenals.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Working pay is issued to the Europeans as per regulations.

The men are employed at—

Field-works,
Photography,
Printing,
Telegraphy,
Signalling,
Sub-marine mining.

And in the corps workshops each man is, as far as is possible, kept practised in his particular trade.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

Working pay during this campaign has, under orders from headquarters, been issued daily to all sappers and miners employed or not. This sort of inducement might be necessary if it were sought to attract artificers and men of education into the ranks; but whilst the sappers are recruited in the same way and from the same class as Native infantry soldiers and pioneer regiments, I cannot think it wise or expedient.

Captain W. North, R.E.

The work detailed in the reply to question 26. Also all other work (such as the work in the Afghan campaign) which the sappers are constantly called on to perform.

Captain W. T. Stuart, Interpreter
and Quartermaster, Bengal Sappers
and Miners.

Working pay is granted to both British and Native sappers in accordance with a scale fixed by Government for every day's work. This scale is based on that of the royal engineer corps.

32. What is your view as to the rôle of the Native sapper? Should he be merely a soldier to do such work as is performed by men of pioneer regiments, or should he be a skilled workman at trades? What do you understand to be the difficulties in getting men with the latter qualifications?

Lieutenant-General C. W.
Hutchinson, R.E., Inspector General
of Military Works.

The objection often adduced against the sapper or engineer soldier being a skilled workman is that, if he be so, he will cease to be a soldier, being diverted from military duties to quasi-civil employment; this objection should not apply in India, and could be met by stringent regulations prohibiting any such employment in the case of a sapper, until he had passed a specified number of years under the colors.

Although the legitimate training and employment of a sapper is to fit him for such duties as tracing ground-plans and setting up profiles of field works, making spar and trestle bridges, sapping, mining, signalling, telegraphy and pontooning, and although the trades of mason, bricklayer, carpenter, joiner, smith, &c., are not essentially necessary for the sapper, yet there can be no doubt but that a practical skill in any of these handicrafts could often be usefully employed on service and in emergencies, and should render the recruit more apt to learn and excel in the particular military duties detailed above. If skill in one of the trades above named be found combined with good physique and other requisite military qualifications in any candidate for service, such a candidate should be well suited for enlistment in the sapper corps.

Major-General F. R. Mansell,
C.B., R.E.

I think that it is most important to uplift the rôle of sappers as soldiers; it makes them proud of their work, and improves them in every way; in fact, it is economical, as it brings better men who would otherwise not come for the pay.

Major-General A. Fraser, R.E.

I do not think that the Native sapper can be anything else than a soldier. The caste difficulty would interfere with the employment of skilled workmen at trades as fighting men as well as the low rate of military pay. But if they can be got, it would be very desirable to enlist them in the ranks.

Colonel J. G. Medler, R.E., Consulting
Engineer to the Government
of India, Railway Department.

A Native sapper should be, and is, a soldier specially trained to the duties of field engineering, *i.e.*, to sapping, mining, pontooning (temporary), bridge-building, signalling, hutting, and the construction of field-works generally, such as batteries and intrenchments. For these purposes he should be a man of more intelligence and better physique than the ordinary sepoy, and should be better paid. If we could induce men of the artisan classes to enlist, we might possess a still more useful body of men than we have now, and could dispense with the services of the civil artificers attached to the corps. But I doubt whether we could persuade Indian artisans to enlist: they would certainly require very high pay, and might be deficient in physique or in the proper military spirit. Sappers and miners at present are highly skilled pioneers; the more of them we have the better for the army. It is simply a question of expense. But as there is a large portion of field engineering work

MV4J.2.M79E

A 879-1.1.2

256275

that can be done by unskilled labor, it is cheaper to employ the trained sapper in the more difficult duties, and to execute the rougher kinds of work by pioneers or working parties from the line or by ordinary laborers hired for the occasion. At the siege of Delhi we had only 150 regular sappers, some 800 Muzbi Sikhs as armed pioneers, and about 1,500 road coolies (unarmed), who were put into a kind of uniform and termed Delhi pioneers. They were paid by the month; their gangsmen acted as non-commissioned officers; and the men constantly worked under a heavy fire, a working party losing in one night 10 killed and 29 wounded while constructing the left breaching battery.

Colonel H. N. D. Frendergast,
a. m., Commandant, "Queen's Own"
Sappers and Miners, Madras.

A large proportion of the sappers should be skilled workmen, and all should be handy men ready to do any work. This is the condition of the Madras sappers. Most of them know several languages, and pick up others with facility. Unless Government will pay a high price for ready-made workmen, the workman must be trained regimentally, for a good workman earns far more than a sapper can, and the latter has besides the troubles of drill and discipline or the pangs and fears of war.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

He should be a skilled workman at some trade. Pay is probably the only difficulty.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Beluchistan.

The Native sapper generally ought not only to be a pioneer to do intrenching work and open out roads, but be a sapper and miner to perform the work required of such in the construction, attack, defence and demolition of fortified places, and be besides a skilled artisan or mechanic in such trades as are chiefly necessary in military engineering.

He ought to be so much of a soldier as will enable him to fight in the ranks for due protection in carrying out the duties assigned, but he can hardly be expected to attain perfection both as an infantry soldier and as a skilled artisan. In Indian warfare there is ample work for the sappers in surveying, in opening out roads, making and repairing bridges, maintaining and working railways, intrenching and making defences, butting troops; attack and defence of fortified posts, erecting and working telegraphs, &c., &c. Such services are or may be necessary to any army in the field; and as they cannot be performed by hired civil labor which are not paid and are not accustomed to incur danger and to risk their lives voluntarily, it becomes necessary to enlist a body of men who shall, during war, take the place of the hired civil labor, to give them permanent pay and family pensions in order to cover the risk to life, and to arm and drill them in order to teach them how to protect it and that of others whenever occasion may arise.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

The *role* of a Native sapper is exactly the same as a trained royal engineer or engineer soldier of the Continental army. To be a perfect sapper, he ought to be, if possible, a skilled tradesman; but in addition he should be so trained that he could turn his hand to anything in reason, and possess the faculty of adapting himself to circumstances, doing the best that the material at hand admits of without requiring detailed instructions. He ought to be thoroughly capable of directing and supervising the labor of others. In fact, he is not only the foreman of work to the rest of the army, but the executor of all finished and difficult work.

A pioneer is merely an ordinary soldier trained to some skill in the use of saw, axe, pick, and shovel. A company of sappers and miners attached to the pioneer battalion would direct their efforts, and simply undertake such portions as would be beyond the skill of the pioneer.

Sappers and miners with a force are not intended to be employed at the heavy manual work (as they so constantly are) about the camp limits or on roads, &c. Work like this should be executed by the rank and file of the army, the sapper merely directing their labors.

As far as I can judge, the pioneer battalion is practically an expensive system of keeping the regular trained sapper and miner companies weak and the corps generally far below their relative proportion to the rest of the army.

A pioneer battalion costs approximately Rs. 5,000 for officers and Rs. 7,000 for men, or Rs. 12,000 monthly, to which must be added their working pay when employed on road-making at hill stations, &c.

Four companies of sappers and miners raised to war strength of 150 privates, having two officers per company, and if necessary a field officer, royal engineer, in command, would cost considerably under the above Rs. 12,000, including working pay.

The sappers and miners would be thoroughly trained men in all branches, and would be certainly as good at manual labor and would form (as is now required: see effects of the Afghan War) a reserve of men to the corps at large, and that at a less cost.

In place of having 10 companies sappers *plus* 2 battalions of pioneers, as is the case I believe in Bengal, a proper and practical condition would be to turn these 2 pioneer battalions into 4 companies each of sappers and miners and send them in rotation to the head-quarters of the sappers and miners for proper training in all engineering duties. In addition to the special companies, such as torpedo, pontoon and telegraph, were the corps divided into 3 sets of 4 companies of 150 men each, returning in turn to head-quarters for two years and remaining four years at work on hill roads, &c.; a really useful body of men would be at the service of Government in any campaign, and the paucity of the engineer corps supplied without any extra expense whatever to the State.

I beg to bring this subject particularly to the notice of the Committee for careful consideration and examination; for I cannot help feeling that an utterly wrong system has been inaugurated by the retention of these battalions to the detriment of the true pioneer, the sapper and miner; possibly, the name of pioneer battalion in the armies of the Continent has misled certain authorities and induced them to retain these battalions as pioneers. I would remark that I believe both were originally raised by royal engineer officers, and were intended to supplement as far as possible the sappers and miners, as trained men were not available nor training possible during that period. There would be no difficulty whatever in getting tradesmen and skilled labor on this side of India, were the pay and inducements held out to them better than they are. It is a mere question of market value; the remuneration of skilled labor is about 300 per cent. more than the pay of a sapper; and, as stated at question 22, the pay even of ordinary Native boatmen in Bombay is Rs. 14 a month, while the man leads an independent life with his family circle around him.

He should be a skilled workman. I apprehend that the difficulty lies chiefly in the wish at head-quarters at Roorkee to consider the sappers in the light of an infantry battalion.

I consider the sapper should have a much higher training than the pioneer; every man should be instructed in sapping, mining, military bridging, &c., &c. He should also be trained as an instructor. The more tradesmen there are with a company the better; a high standard of efficiency in any one is not necessary. I am not aware difficulty is experienced in getting such men to enlist.

I think a Native sapper should be a Native artificer trained as a soldier fit to withstand the hardships of a campaign, not unwilling to cross the sea by reason of caste or any other prejudice, and of reasonable physique.

The only difficulty I can imagine in getting recruits in India skilled at the trades mentioned in answer 3 to be that of pay (of course recruiting for particular corps should not be confined to particular districts and castes); this would be removed, I think, if the labor necessary for repairs, small new buildings, and alterations, &c., to forts and buildings were performed by the sappers and remunerated weekly by certain regulated rates of working pay chargeable to engineer services.

The rate of working pay allowed to each sapper would be best settled as it is in the English service;— a system which I have found invariably, both at home and abroad, to be both economical to the Government, by keeping down the price of work, and satisfactory to the soldier; it is one, moreover, which could in certain kinds of work be advantageously extended to other Native corps.

I consider that a sapper should be a soldier, but should, in addition, be a great deal more than a pioneer; should be, in fact, what we endeavour to make him. A good deal of what he has to learn is

detailed in the annexure A,* but there are a number of other things taught.

* See answer 26.

A number are also taught rough trades after enlistment, so that they can make all the constructions likely to be required in war.

Supposing skilled tradesmen were to be got to enlist as soldiers, I believe it would be a positive disadvantage to have them: they would be apt to be told off for private work by young officers who would not like to refuse, when they were badly required to swell the working strength of the company.

The skilled tradesman in this part of India would be utterly unfit, I believe, for a soldier or sapper. I have heard that the tradesmen in the Punjab would make good soldiers, but I have also heard that Rs. 20 a month would be the lowest pay they would require.

A sapper should be much more than a pioneer. Of course, he should be able to work faster and better with pick and shovel than any untrained soldier. But he should also be trained in making trenches and batteries, in bridge-work, mining, &c., so that a small

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

Lieutenant-Colonel D. Limond,
R.E.

Lieutenant-Colonel W. H. Burton,
R.E.

Captain W. North, R.E.

Captain J. Dundas, R.E.

number of sappers might be sent with a large working party of other troops, and might be trusted to act as leading men in the work to be done. It is certainly very desirable to have in the ranks as many skilled workmen as possible; but the difficulty seems to be that a man who could make large earnings in civil life would hardly be attracted by a sapper's pay. Men who had already enlisted might no doubt be taught trades in the corps workshops.

Captain W. H. Pierson, R.E.

The *role* of the Native sapper should be that assigned to the engineer-soldier in all countries. He should consequently be more highly trained than the men of pioneer regiments in India; but it does not follow that he need be a skilled workman at trades. No army can offer sufficient inducements to secure the services of really skilled workmen in the ranks; but young men of the artificer class should, as far as possible, be enlisted, to be subsequently carefully trained in their respective trades so as to become in time respectable workmen. I have no experience as to the difficulty of enlisting such men in India; but it is a difficulty that *must* be overcome if efficient sappers are required.

Captain H. H. Cole, R.E., Executive Engineer.

The Native sapper should, I think, be in himself, without auxiliaries, an efficient scientific soldier for fortifications, communications, hutting, demolition, &c. He should be skilled enough to assist in those works requiring skilled labor, and be able to protect himself whilst on works. He should also be an efficient unit in a force for attack. The difficulty in enlisting skilled labor lies in the prejudices hitherto prevalent among the fighting castes against manual labor. On the other hand, Native artisans have not fighting traditions.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

The Native sapper can and is trained to the highest system of military engineering, including pontooning, bridging, telegraphy and a knowledge of surveying. These branches once acquired are not lost sight of; but I see no reason why the highly trained sapper should not be made most useful in aiding and supervising pioneers and Native infantry in ordinary unskilled works, such as road-making, boring and blasting, and such like.

33. A considerable number of Native artificers and followers is attached. Please state if these cannot be reduced. Should not artificers especially be looked for in the ranks of the sappers, alteration being made if necessary in regard to enlistment?

Major-General F. R. Maunsell, C.B.; R.E.

It is beyond doubt that good artisans, that is Indians, would not be efficient for other hard work or likely to like soldiering, nor would they be satisfied with the allowances of a sapper. The small number of artisans are very necessary both for work and to train sappers, and this system of training the sappers to be rough artisans seems the best possible plan. I believe this, when fully carried out, to be a superior plan to that of the royal engineer companies or of any other system that I know of, but it is difficult with all the companies broken up or rather dispersed over India.

The want of artisans in the ranks does not exist in the Madras corps I believe. The company which served under my orders had a number of very respectable carpenters, who had been taught upon the system only lately taken up in the Bengal corps; but that corps has an enormous pull over the Bengal, in being about three times the proportionate strength, with a comparative small tract of country to serve in, so that they are much under training at their head-quarters.

Major-General A. Fraser, R.E.

I do not think that artificers should be looked for in the ranks of the Native sappers. If the European companies were divided into four sections, one of which with a small field equipment of carpenter's and smith's tools, accompanied each of the four companies to the field, the following of Native artificers might be done away with.

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

The Native artificers and followers of a company of sappers from Madras are—

- 1 smith.
- 1 carpenter.
- 1 hammerman.
- 1 bellows-boy.
- 1 regimental lascar.
- 1 puckalli.

The hammerman and bellows-boy could be replaced by sappers, it is true, but they are useful and very cheap. It is a comfort to have a smith and carpenter ready for work when the men are otherwise engaged and the followers are utilized in action by carrying cartouches of ammunition.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

The establishment of a sapper company with field park on a war footing might consist of—

DETAIL.	Officers.	Non-commissioned officers.	Sappers.	Total.	REMARKS.
British officers ...	3	3	Camp followers not included. Transport and drivers would be provided in addition. The object should be to enlist the number of men in these trades and to teach them all afterwards the work required in field engineering.
Non-commissioned officers	6	...	6	
Native officers ...	3	...	...	3
Native non-commissioned officers.	...	14	...	14	
Clerks	2	2	
Buglers	2	2	
Pioneers	20	20	
Brick-makers	10	10	
Brick-layers	6	6	
Stone-masons	4	4	
Carpenters	10	10	
Blacksmiths	6	6	
Plate-layers	8	8	
Miners	10	10	
Quarrymen	10	10	
Wheelwrights	2	2	
Painters	2	2	
Tailors	5	5	
Leather-workers	4	4	
Tinsmiths	2	2	
Glaziers	2	2	
TOTAL ...	6	20	105	131	

This might be reduced during peace to—

DETAIL.	Officers.	Non-commissioned officers.	Sappers.	Total.	REMARKS.
British officers ...	2	2	Camp followers not included; 10 per cent. of the whole number would usually be absent on furlough.
Non-commissioned officers	4	...	4	
Native officers ...	2	...	...	2
Native non-commissioned officers.	...	8	...	8	
Clerks	2	2	
Buglers	2	2	
Pioneers	10	10	
Brick-makers	6	6	
Brick-layers	6	6	
Stone-masons	4	4	
Carpenters	8	8	
Blacksmiths	6	6	
Plate-layers	8	8	
Miners	8	8	
Quarrymen	8	8	
Wheelwrights	2	2	
Painters	2	2	
Tailors	5	5	
Leather-workers	4	4	
Tinsmiths	2	2	
Glaziers	2	2	
TOTAL ...	4	12	85	101	

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

There are a number certainly of artificers attached, and they might be slightly reduced in number; but I consider it of very great value to the head-quarters and companies to have a few well skilled tradesmen of different arts who cannot only be generally utilized in workshops, but who would form practical teachers to the recruit class.

I would strongly advocate on this side of India slightly increased pay and better pensions. Their numbers are very small, but their influence, if properly exercised in training young men in trades, would

be invaluable. The class we have are not as a rule sufficiently good, pay &c., being too low to tempt first-class men.

I do not consider that it would be advisable to do away with them, but they might be regularly enlisted and put through a rough course of duty to be able to use the rifle, &c., and not be so utterly helpless as at present. On service, &c., there is plenty of work for the artificers,—mending picks, shovels, &c.; if sappers are detailed for this work, they escape guard mounting, &c., and cause unpleasant feeling which should not be allowed to exist: hence consider the artificer recognized as such is necessary to a company.

These artificers are even now supplemented by artificers of sorts in the ranks. The table of castes and trades will show this; at the same time, we have great difficulty in obtaining smiths, the railway and other departments swallowing up every available man.

The only great branch of followers attached to the service companies were the dooly-bearers, of whom 54 were sent with each company. This number is excessive, and I think should be reduced.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

Civil artificers might, and in my opinion ought to, be done away with. Artificers should be found in the ranks.

Lieutenant-Colonel W. H. Burton, R.E.

I do not consider the forty-five artificers attached to these sappers all necessary. I would reduce the number to one brick-layer maistry, one mason maistry, one carpenter maistry, one blacksmith maistry; these four men to be attached to the depôt for purposes of instruction and of assisting boards of officers in rating the sappers' working pay.

Captain W. North, R.E.

When the companies are at work, the whole of the mistries are required to keep the tools in repair; in fact, they can't do this properly.

I don't think the other servants could be reduced, two bhisties, two sweepers, and a lascar.

In reply to question thirty-two, I explained why I did not think that artificers should be looked for in the ranks of the sappers.

Captain W. H. Pierson, R.E.

All the artificers required should undoubtedly be found in the ranks of the sappers. The composition of an engineer company at home is laid down at—

Carpenters	...	...	...	24 per cent.
Smiths	...	...	...	10 "
Bricklayers and masons	...	...	...	30 "
Other trades, including clerks and laborers	...	...	...	36 "
				100

But, as already noticed, most of these cannot be anything more than apprentices in the various trades. I am most reluctant to admit the necessity of any followers whatever; and the onus of proving that some of them must be retained might fairly be thrown upon those officers who advocate the present system.

Captain H. H. Cole, R.E.,
Executive Engineer.

Excepting in the case of regimental bheesies and sweepers, medical and hospital establishments and conservancy, an effort should, I think, be made to enlist in the companies all such men, now followers, as smiths, firemen, filemen, hammermen, carpenters, moochies, &c.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

These non-combatant artificers are a mistake; all should be enlisted, clothed, and pensioned as sappers. It would, from the fact of only certain castes being skilled artisans, be difficult to obtain them, but a certain number could be trained as boys and enlisted when they grew up. The present havildar armourer of the corps—a very good workman—is by caste a weaver. He is, moreover, an *excellent* soldier.

34. (a) It is very desirable to reduce the number of followers of all classes both in peace time and on active service: can you suggest reductions of the present establishment?

(b) Can you suggest improvement in the system of engaging these men; and in what way could they be organized so as to be less defenceless and helpless than they are at present?

Major-General A. Fraser, R.E.

The suggestion made in reply to the last question would, if adopted, result in a reduction of the number of Native followers. I am not at present in a position to say what further reductions might be made, or how they could be organized so as to render them less defenceless.

Colonel H. N. D. Prendergast,
R.E., Commandant, Queen's Own
Sappers and Miners, Madras.

Lieutenant-Colonel J. Hills, R.E.,
Commanding Bombay Sappers and
Miners.

(a) The hammerman and bellows-boy could be abolished, and two sappers added to each company.

(b) The artificers should receive higher pay than they do now, and should be armed with a *hookeri* or working knife.

(a) There is but a small establishment of followers to a company of sappers and miners in peace, and they could not well be reduced; they are as follows:—

Carpenter	...	...	...	...	1
Smith	...	...	...	...	1
Mason	...	...	...	...	1
Hammerman	...	...	...	...	1
Bellows-boy	...	...	...	...	1
Bheesties	...	...	...	...	2
Lascar	...	...	...	...	1

When the sapper and miner companies were warned for service, no less than 54 dooly-bearers were attached to each company; this was much in excess of what was required practically. A little more caution in not sending weak or sickly men would of itself save the necessity of dooly-men, but 16 to 20 would have been ample.

It would have been far better had this representative number of mouths to feed been made up of only 20 dooly-bearers, and the difference thrown in as additional sappers, for these last could have carried their own comrades quite as well as the set of dooly-men sent.

(b) I cannot but think when it was decided to have 600 dooly-bearers to each regiment that they ought to have been called out at once war was determined upon and put through a rough musketry course and marching had there been time, with weapons supplied them which they could easily have carried on the dooly. Having attained a certain knowledge of the use of firearms, they could easily have defended themselves and the sick and wounded they were carrying. One successful defence would have animated them so much, that in case of need they might have been depended upon to supplement the actual fighting force.

Not only were their numbers out of all proportion, and as such threatening seriously to swamp and embarrass the fighting element, but the rapidity of their enlistment and the numbers called for introduced a large number of men who ought never to have been taken. In place of this it were better to have a regular corps organized in peace time of men who should undergo sufficient training to make them fully competent to defend themselves and form up in bodies; they would then come under the head ambulance corps; but under whatsoever denomination they may be recruited, they should all learn the rudiments of drill and of the musketry exercise.

Captain W. North, R.E.

(a) For war, I believe the Kabul scale ample, but that it could not be reduced. The number of dooly-bearers was so enormous, that any small addition or diminution in the numbers of other followers would be unimportant.

In peace time the present establishment of followers could not be reduced without inconvenience to individuals, as long as five Native servants are required to do the work which one does at home.

(b) The only thing I can suggest would be a small amount of drill and discipline, and this would be useless unless all, including all dooly-bearers, were retained in time of peace.

Captain H. H. Cole, Executive
Engineer.

(a) I think reductions should be tried, but it would be necessary to proceed experimentally, and to begin by training men already enlisted in some of the work for which followers are now engaged.

(b) As long as followers are a necessity, it would, I think, be a good principle to make the Native officers engage them, and select them specially for physical qualities and for courage. The Native officers should, I think, be held directly responsible for the behaviour of all followers.

Captain W. T. Stuart, Interpreter
and Quarter-Master, Bengal Sappers
and Miners.

Nothing struck me so much during the late campaign as the utter uselessness of large numbers of unarmed camp followers, public and private, especially the kahars, for many were simply very inferior coolies. I would reduce the numbers all round, would train and organize them, clothe and find them with at least a side arm. All public followers should be so organized, and if each officer were allowed a *soldier* servant, he could be most useful in both capacities in camp and on the line of march.

35. Do you consider the reserve system could be applied to the sappers?

Major-General F. R. Maunsell,
R.E., R.E.

I think the reserve system could be applied to the sappers equally as to other branches; some modifications might probably be desirable for

them, assuming that a peace-footing, a war-footing, and a sufficiency of recruits were obtainable and under training.

Major-General A. Fraser, R.E.

The reserve system is, in my opinion, both applicable and highly desirable in the case of the sappers. For the European portion I would have two companies borne on the home establishment, but paid for by, and at the entire disposal of, the Indian Government; one of these companies should be in India, and the other in England at the headquarters under training in all the latest inventions and arrangements for war. Of the eight Native companies, I would have four with the colors and four in the reserve. Probably two companies of European royal engineers would be enough for Bombay and Madras together, the one in India being divided between the two Governments.

Colonel J. G. Medley, R.E., Consulting Engineer to the Government of India, Railway Department.

I think *not*. As a general rule, the men would lose much of what they had learnt, and it would be difficult to get them back again to the colors, while the saving effected on the small number of men would be inconsiderable. If, however, the reserve men could be employed under Government in civil duties, as suggested in question 43, the measure would be a very useful one (see next answer).

Colonel H. N. D. Prendergast, R.E., Commandant, "Queen's Own" Sappers and Miners, Madras.

I do not think it should be applied to sappers: a sapper in the reserve would soon lose all his good points.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

A reserve system in the ordinary sense, where the men are not employed in any active capacity by Government, would, I fear, be a hidden danger to India in the event of any insurrection of the people.

Half the men might remain true and join their colors; the other half, worked upon by their surroundings at home, and from sympathy with the insurgents, might skulk. I should not like to depend upon the chance of such a body, freed from any discipline or control during some years, collecting together promptly in moments of sudden danger. But, with the aid of employment in public works, including railways, telegraphs and surveys, a reserve might be formed which would be free from the above objection. My idea is a term of service from 36 years, of which the first 9 years with the sappers and miners, 9 years in public works, railways, telegraphs or surveys, 9 years again with the sappers, and the last 9 years on public works generally; there would thus be always a large proportion present of old soldiers with the recruits in the sapper companies.

The public works, railways, telegraphs and surveys would be glad to employ such Native sappers as are artificers. Half the number would no doubt be such, and the rest as pointsmen, signallers, platelayers, train guards, train or survey kalasies, orderlies, heads of coolie gangs, &c.

The men throughout would be under the eye and control of Government and be always ready to join the ranks in time of war or of internal disturbance. Such a reserve would not only be working all the time they receive pay from Government, but could be more depended upon in critical times to come together promptly and to remain true and loyal.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

No; not as might be applied to the rest of the army; but I append my ideas how such can easily and most advantageously be formed. Once a skilled workman were placed in any reserve and gained civil employment, he would never throw up his place to return to the reserve. The same strong feeling of duty and loyalty which animates the English people cannot be expected from a Native; and hence all ordinary reserves would, I believe, fail the sappers and miners.

The best and simplest method of having a strong body of sappers and miners is by making a certain portion pay their own expenditure. By turning in Bengal the pioneer battalions into four companies of sappers and miners and utilizing them in turns on the many hill stations, &c., in Bengal, and now on the frontier, a large number of men who more than pay their way is obtained and made available for an active reserve. Similarly, in Bombay, I have apportioned three companies for duties under the Public Works Department, who should be induced to use them in preference to ordinary labor. All these moving back and forward by steady rotation would form an excellent body of men. In Madras such a system is to a certain extent already carried out, and greatly reduces the cost of their sappers and miners.

But in addition to the above, I would strongly advise, as it also meets question 61 (a), that three or four men picked for their intelligence, chosen from the men who have just completed their third year of service (having not only been thoroughly drilled and passed through the musketry course, but have become also fully formed), be sent annually from each regiment to the headquarters of the corps of sappers and miners. These men should remain three or four years with the corps, undergoing careful instructions and practice. A simple course of instruc-

tion is not sufficient; it is intended that they should by practice of two or three years become fully able to apply their practice before they return to their regiments. After their third or fourth year they would return to their respective regiments and be the leaven to carry out any sudden engineering call which might be made upon the battalions to which they belong; their knowledge of the construction of small bridges, the throwing up of barricades and defence obstacles, the building of rough huts, methods of crossing rivers, &c., would be of very great value in movements and camps, and they would be able profitably to direct the work of the remainder of the men in ordinary labor.

By the above means, taking Bombay at 30 regiments or battalions, there would be sent annually 90 to 120 men, and they would accumulate to from 300 to 400 men at the sapper and miner head-quarters, of whom three-fourths could on any emergency be draughted into the sappers. A most valuable reserve would be thus obtained, who under ordinary circumstances would increase the engineering usefulness of the Native battalions, and in case of emergency form the sapper reserve; even in such a case were all swamped, a loss of only from 10 to 12 men per battalion, a mere nothing, would fall upon the Native regiments. The expense of this would be but trifling, for the regiments would be simply 12 men short in numbers, and only a very small extra training establishment would be necessitated.

Lieutenant-Colonel W. Hiebens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

No; I think the sappers should be kept at a war strength, and employed in peace on the public works.

Lieutenant-Colonel D. Limond,
R.E.

No, not as sappers. The men might be passed into a reserve as pioneers.

Lieutenant-Colonel W. H. Burton,
R.E.

I do not think the reserve system could be successfully applied to Native sappers.

Captain W. North, R.E.

No; I consider that it would be impossible to apply it to the sappers, unless present conditions are entirely altered.

I don't see how a reserve system can work unless a large number of recruits are available, as is probably the case with the infantry.

In the sappers we can only just obtain the recruits necessary to fill the places of those invalidated, who are fit for no further service, either reserve or other. It would not be worth while considering the few men who leave the service, while still strong, at their own request.

For the above reasons, I feel unable to answer the other questions regarding a reserve.

Captain J. Dundas, R.E.

I think not, because I believe that each man ought to be thoroughly efficient, and that the expansion on service which the idea of a reserve implies would be sufficiently met by the employment with the sappers of working parties of other troops. Men of a reserve would be apt to be inefficient for the special duties of sappers.

Captain W. H. Pierson, R.E.

The reserve system might be applied to sappers; but it would seem better merely to transfer them for employment in their respective trades under garrison engineers in military works. This would answer equally well from a financial point of view, and would present the very great advantages—1st, of keeping the men under control and available for service at the shortest notice; 2ndly, of completing their education as artificers, so that fairly skilled workmen might eventually be found in the ranks in time of war. This system, however, could not be applied to the class of men now enlisted.

Captain W. T. Stuart, Interpreter
and Quarter-Master, Bengal
Sappers and Miners.

I consider that when a sapper is fully trained it would be well to retain his services until past active work in the field. Some pensioner sappers did good service at the Residency, Lucknow, in 1857, and might do so again if occasion required it. So did some old Sikh artillery at the siege of Delhi.

36. Do you consider that in the case of popular disturbance men in the reserve would respond to the call to join their colors, or would they be likely to make common cause against the Government?

Major-General F. R. Maunsell,
C.B., R.E.

I think the reserve would respond to the call to join their colors; that if the men with the colors were faithful their comrades would join them. Although I do not think the Government is popular, I think that a wholesome conception of British power exists, and of the futility of opposition.

Major-General A. Fraser, R.E.

The behaviour of the men in the reserve in the case of popular disturbance would, of course, depend on the nature of the disturbance; but they would in any case be more likely to become dangerous if left without employment.

Colonel H. N. D. Prendergast,
R.E., Commandant, "Queen's Own"
Sappers and Miners, Madras.

I do not think they would respond to the call to join their corps; but they would not make common cause against the Government.

Lieutenant-Colonel B. de Bourbel,
R.E., Consulting Engineer to the
Government of India for Guarant-
eed Railways at Lucknow, now on
special duty in Btuchistan.

See answer 35.

Lieutenant-Colonel J. Hills, R.E.,
Commanding Bombay Sappers and
Miners.

Taking this question generally from my experience of the Native, I believe the great body would remain neutral, a few, either loyal or discontented, joining the opposing factions.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

As a large political question, there appears to me to be very great danger to the State in a large reserve of trained soldiers of alien races.

Lieutenant W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

I am doubtful if the reserve could be applied. They would possibly be divided in their opinions.

37. After what number of years' service would you pass a sapper into the reserve, and how long should he be called on to serve in the reserve before being able to claim a pension?

Major-General F. R. Maunsell,
C.B., R.E.

I would pass a sapper into the reserve after eight years in the ranks, and would call on him to serve 12 years in the reserve, or total 20 years before being able to claim pension.

Major-General A. Fraser, R.E.

After twelve years' service with the colors, men should pass into the active reserve; after twelve years' service in the active reserve, they should be required to serve six years more in the second or veteran reserve, or a total of 30 years' service, to entitle them to pension.

Colonel H. N. D. Prendergast,
R.E., Commandant, "Queen's Own"
Sappers and Miners, Madras.

Sappers should not be in the reserve.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

I should pass every sapper into any such reserve as railway employment, Government telegraph, if passed a course of such, after 20 years' service. By this I mean that, as a rule, sappers have to lead so hard a life, that they become physically unfit to keep up the excessive duties demanded from them, but would be capable of carrying on ordinary vocations of life. They should hence as a body be pensioned off, the better men to ease the pension list might get preferments under Government employ most suitable to their respective capacities, by which both parties would gain, the Government by the services of a quiet steady disciplined man, they by the quiet employment. After 20 years each sapper should be able to claim his pension.

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

Being doubtful on reserve system, I need not say more on this point.

38. What pay should be given while in the reserve?

Major-General F. R. Maunsell,
C.B., R.E.

I would give Rs. 3 and their good-conduct pay per mensem.

Major-General A. Fraser, R.E.

The pay to be given in the active reserve need not be more than one-half of the pay, without batta or other allowances, given to men serving with the colors.

Colonel H. N. D. Prendergast,
R.E., Commandant, "Queen's Own"
Sappers and Miners, Madras.

Sappers should not be in the reserve.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers and Miners.

Answered by no actual reserve,

Captain W. T. Stuart, Interpreter and Quarter-Master, Bengal Sappers and Miners.

As in answer No. 37.

39. (a) Do you think it would be an advantage to divide the reserve into two classes, the first liable to be called out for active service, and the second for garrison service only, the first class passing into the second ?

(b) If you consider that the reserve should be divided into two classes, what should be the pay of each class ?

(c) How long should a man serve in the first and how long in the second reserve ?

Major-General F. R. Maunsell,
C.B., R.E.

(a) I think so.

(b) I would give the above pay to the first reserve with a minimum of Rs. 3-8; Re. 1 a month less to the second reserve.

(c) He should serve five years in the first and seven in the second reserve.

Major-General A. Fraser, R.E.

I would, as stated above, divide the reserve into two classes, the active and the second or veteran reserve. The monthly pay in the second reserve should be one rupee per mensem, or 12 rupees per annum more than the pension to which the men would become entitled on completing their term of service. The term of service should, as stated above, be twelve years in the active reserve and six in the second reserve.

Colonel H. N. D. Prendergast,
R.E., Commandant, "Queen's Own"
Sappers and Miners, Madras.

Sappers should not be in the reserve.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Not practicable with the sapper; for if young when passed into a reserve, he would not be available, and if old, would not be worth retaining.

Captain W. T. Stuart, Interpreter
and Quarter-Master, Bengal
Sappers and Miners.

(a) As in answer No. 33.

(b) I consider it would be wasting good money and men; good men do not come forward in such large numbers as formerly, and it is even now difficult to get good men to enlist; therefore, I am of opinion that the idea of a reserve for India may be put as ideas impracticable. Pensioners might in cases be found useful to protect lines, &c., when the army takes the field, but I would not go further than this. When the pensioners were up, I would give them the full pay of their rank and a warm coat or according to season.

(c) *File* answer to 37.

40. What percentage, if any, would you propose to retain for long service with the colors, and what should be the limit to that service ?

Major-General F. R. Maunsell,
C.B., R.E.

I would retain twenty-five per cent. with the colors for ten years as privates, for fourteen years as naiks, for sixteen as havildars.

Major-General A. Fraser, R.E.

I would not retain any men longer than twelve years with the colors, if twelve years be settled as the ordinary term of service.

Colonel H. N. D. Prendergast,
R.E., Commandant, "Queen's
Own" Sappers and Miners, Madras.

Sappers should, I think, be allowed a high rate of pension after 25 years' service, and few should be kept in the service longer.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Answered by *no* reserve.

Captain W. T. Stuart, Interpreter
and Quarter-Master, Bengal
Sappers and Miners.

File reply 39.

41. How many days' training a year should he have ?

Major-General F. R. Maunsell,
C.B., R.E.

Thirty days—working days—he should remain until that has been made up.

Major-General A. Fraser, R.E.

The reserves should be collected for thirty days' military training every year.

Lieutenant-Colonel R. de Bour-
bel, R.E., Consulting Engineer to
the Government of India for
Guaranteed Railways at Lucknow,
now on special duty in Biluchis-
tan.

Of course under my system the reserve sapper could not have any military training during the period of his employment on the public works, railways, telegraphs, and surveys. The first nine years' drill and discipline with the companies ought to set him up as a soldier. No employer of labor could possibly agree to the yearly absence of their servants at stated intervals, and it would be hopeless to carry out the scheme with this condition. It would seldom suit the convenience of the employer to give the man leave oftener than once in every three years, and then only when business is slack.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Answered by *no* reserve.

Captain W. T. Stuart, Interpreter
and Quartermaster, Bengal
Sappers and Miners.

Vide reply 39.

42. Where should the arms, clothing, and equipment of the reserve sappers be kept?

Where should the reserve man undergo his annual training?

Major-General F. R. Maunsell,
C.B., R.E.

Their arms generally with their head-quarters; perhaps the number should be limited. Clothing should be kept with the men, or they might pay a man to look after it at their head-quarters, or, if inconvenient, then wherever the nearest detachment of their corps may be.

Major-General A. Fraser, R.E.

The reserve sapper should undergo his annual training at the head-quarters of the corps; and his arms, clothing, and equipment should, when not required, be kept at head-quarters in store.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Beluchistan.

See answer 41.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

At head-quarters of the corps.

Captain W. T. Stuart, Interpreter
and Quartermaster, Bengal Sappers
and Miners.

Vide reply 39.

43. Have you any suggestions to offer as to the employment of the reserve sappers on railways, in workshops, arsenals, &c.?

Lieutenant-General C. W. Hutchinson,
Inspector-General of Military Works.

Assuming that the reserve system be adopted as feasible and advisable, and that the sappers have been recruited from artizan classes, the soldier at the end of his period of active service, having been originally a skilled workman, and having experienced the salutary influences of military discipline, regular drill, and a complete course of training in the special duties of a sapper and miner, should have developed into an intelligent and useful man, who could be advantageously employed in the lower subordinate grades of many departments of Government, in magazines, arsenals, on railways, &c. Such men would find a suitable field for employment in the military works branch as sub-overseers or head artificers on barracks, fortifications, military roads, &c. Here they would continue to serve the State, keep up some of their acquired skill and their habits of discipline, and would be at once available for further active service, should the reserves be at any time recalled to the colors.

Major-General F. R. Maunsell,
C.B., R.E.

I think the second reserve sappers might be employed on railways.

Major-General A. Fraser, R.E.

The active reserve of sappers I would employ as an organized railway police force, but clothed and equipped by the civil department. The second reserve might live at their own homes. On the outbreak of hostilities, the companies with the colors would be available for immediate action; the railway police companies would be at once collected at head-quarters to be organized as a reserve; and the second reserve of veterans would take the place of the railway police, as they should also do when the active reserve would be in training.

Colonel J. G. Medley, R.E.,
Consulting Engineer to the Government of India, Railway Department.

I think Sir Andrew Clarke's suggestion to have one State railway officered and manned entirely by military men, from the highest to the lowest official on the line, to be a valuable one, and quite practicable. Of course, civilians would have to be largely employed at first; but soldiers (European and Native) might be taken into training, and would gradually replace the civilians. The men should be selected for good character and intelligence, and properly paid. Uniform should be invariably worn on duty, and the habits of military discipline strictly observed. The officers would, as a rule, be royal engineers; and the men, or a large majority of them, might be reserve sappers, liable for

service with the colors in time of war, *i.e.*, such of them as could be temporarily spared from the line. The advantages to Government of having a body of trained drivers, guards, plate-layers, pointsmen, &c., all under military discipline and control, might often be very great, either for making and working railways in our own territory or in that of the enemy, in time of war. And during periods of civil commotion and disturbance they might be equally useful.

Colonel H. N. D. Prændergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

Endeavours should be made to provide employment for pensioned sappers on railways and in workshops. They are usually appreciated on railways. Such men would probably turn out to aid Government at any time without a retaining-fee.

Lieutenant-Colonel R. de Bour-
bel, R.E., Consulting Engineer to
the Government of India for
Guaranteed Railways at Luck-
now, now on special duty in
Beluchistan.

Guaranteed railway companies, State railways, managers of workshops, superintendents of arsenals, and other employers of labor in the service of Government would be thankful to obtain the services of Native sappers for a long period, such as nine years, especially if they are skilled artificers, but not if the men are obliged to absent themselves for annual military training. This condition would nullify any advantage, and no employer of labor would submit to it. Railway companies might also object to take many men into their permanent service who are liable to be called out at short notice to quit. The result would be that they would take few of the second nine-year men, but more of the fourth nine-year men, who would be the last to be called out. As the operations of public works generally are reduced in time of war, there would not be the same objection in their case to the withdrawal of the workmen to join the army in the field.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sap-
pers and Miners.

I am of opinion that it would be a very great inducement towards the enlistment of a higher standard of men were appointments in Government employ thrown open to men in the sappers who had qualified themselves for such after a certain number of years' service. They would be of great use to the Indian railways, as they would be steady, well-disciplined men, accustomed to use their senses; and the more Government employ is thrown open to the sapper, the better for both the Government and the corps.

Lieutenant-Colonel W. Hich-
ens, Commanding Royal Engin-
eers, Southern Afghanistan Field
Force.

Sappers should only be employed on military works (including of course roads, barracks, &c.), under their own officers.

Captain W. T. Stuart, Inter-
preter and Quarter-Master, Bengal
Sappers and Miners.

I consider that many sappers, both non-commissioned officers and privates, could be most usefully employed as pointsmen, surface-men, and otherwise on the State railways. Rs. 4, the maximum pension given to a man, is not sufficient to keep body and soul together. They very often mortgage their pensions, and are, to my personal knowledge, very hard up all the year round. Even the pension of Rs. 7 per mensem given to a non-commissioned officer who has been in the receipt of Rs. 15 or Rs. 20 is not sufficient. I consider the proposition or suggestion made in this query is, if carried into effect, likely to bear good fruit.

Lieutenant H. H. Pilkington,
Acting Deputy Consulting Engi-
neer for Railways, Bombay.

A certain number of reserve sappers might be advantageously employed on railways, but only in such posts as ticket-collectors, watchmen, &c., where their sudden withdrawal would not interfere with the working of the line.

There would be a difficulty in employing them in railway working proper, as such men as guards, pointsmen, signallers, &c., require special training and experience before they are of any use, and it would be difficult to replace them at short notice, or to dispense with their services from time to time.

44. Would the reserve system be popular with the Native army?

Major-General F. R. Maunsell,
C.B., R.E.

I believe a well-arranged system would be very well received. The serving long years in the ranks does not appear to be desired so much as it used to be, and the idea of practically getting pensioned after eight years would be popular, I think, to a considerable extent.

Major-General A. Fraser, R.E.

I do not believe that the reserve system would be popular with the Native army, unless employment were provided. A Native army is chiefly recruited from the fighting castes, and unemployed men would not readily take up other pursuits, while in idleness they would be a source of anxiety and danger to the community. By employing them in the police, one-half of their pay might be met from the civil estimates, yielding a very large relief to the army estimates without any additional burden on the country.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Captain W. T. Stuart, Interpreter
and Quartermaster, Bengal
Sappers and Miners.

Any scheme that results in obtaining a man a pension would be popular with the peasants of the Madras presidency; but I doubt much whether reserve soldiers would be forthcoming when wanted.

Probably so in the North-Western Provinces. I should think not so in Bombay and Madras.

That is the question! I doubt it very much.

43. Please state your views on the general question of employing soldiers, European or Native, on Indian railways; or the formation of railway companies of engineers and sappers, &c.

Major-General F. R. Maunsell,
C.B., R.E.

The employment of soldiers, European and Native, would be a good thing, provided the men so employed were not liable to be called away to join their colors. The railways would be wanted to work at increased pressure in war, and the staff would require increasing then.

I do not think that railway companies of sappers are so much wanted as general service companies; but if railway companies were to be considered liable for general service, I would think it advisable to try them.

Major-General A. Fraser, R.E.

I am quite of opinion that sapper and pioneer regiments may properly be employed on difficult railway construction and on military roads; but I would not employ them on railway management or working, whether as regards the troops with the colors or the reserve, simply because, if war broke out, we should have to move the troops to the front, and there would be no skilled men left to work the railways.

Colonel J. G. Medley, R.E.,
Consulting Engineer to the
Government of India, Railway
Department.

This question has been partly answered in my reply to question 43. A railway sapper company (*i.e.*, of men with the colors) might be very useful in time of war or civil commotion, when our railways might easily be damaged by insurgents. The men should be trained to repair or relay the rails, points, and crossings, to erect and work signals, to lay in diversions, make temporary bridges, repair rolling-stock, &c.; and a certain number of them to act as drivers and guards. Much of the necessary instruction could be given at the sapper head-quarters; the rest would be best acquired by temporary transfer to the military railway above recommended.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

I am quite in favor of employing soldiers, European and Native, on Indian railways. Such employment develops their intelligence, increases their self-respect, improves their health, and adds to their income. Engineer militia companies should be formed on the railways of the Madras presidency.

Colonel the Hon'ble C. J.
Merriman, C.S.I., Acting Secretary
to the Government of Bombay,
Public Works Department.

I do not think European soldiers could be successfully employed on Indian railways. Native soldiers might indeed; but I would advocate Native sappers with European engineers only being so employed; and I would never keep companies of sappers on such work away from head-quarters for more than one year at a time, so that the men might never lose their efficiency as sapper soldiers.

Lieutenant-Colonel R. de Bour-
bel, R.E., Consulting Engineer to
the Government of India for Guar-
anteed Railways at Lucknow, now
on special duty in Beluchistan.

My attention has long been given to this question, but it is not easy to frame a working scheme.

In the first place, on war breaking out, all soldiers of infantry, cavalry, and artillery, whether European or Native, are wanted as combatants, must return to their regiments or batteries, and cannot be spared for railway duties.

Of the reserve sappers, under the system I propose about one-third might be required at first for the army, while the rest might continue in the employment of the public works, railways, telegraphs, and surveys, though these also would be liable to military service if required.

In the event of invasion or of insurrection in any province, the amount of traffic for military purposes on any railway leading to or passing through it may suddenly become so augmented, that the establishment, even when reinforced from all local sources, will prove insufficient to cope with the work. This railway cannot evidently spare one man; and it would be a great advantage to it if a relief of trained men could be obtained from any source.

Should the enemy advance into the country, and the service on the railway become perilous to those employed, the civil labor might shrink and desert; and the presence of a few skilled and trained soldiers among them, coming in as a relief and aid, would encourage, give them heart, and might induce many to remain. In the case also of an army advancing into foreign territory and taking possession of a railway, deserted probably by all its employes, the only means by which the railway can be utilized would be to have a body of skilled soldiers ready at hand, who could at once occupy and work the line with any rolling-stock found and made available.

A corps of railway sappers, trained specially to all railway duties, would be a most useful adjunct to an army in the field; and from this body it would be easy to draft the number of men required to aid the staff of an existing railway in times of great pressure or danger.

In case of necessity the railway corps might occupy the whole or part of a railway, and work the latter for military purposes.

During peace these railway sappers might be attached to and employed on the Indian railways, partly to make them practical men, and partly to prevent their being a burden, on the finances of the State.

There might be one railway corps for all India at first, constituted as follows. The particular railway duty assigned to each individual is entered in the margin of the table. The numbers are approximate, and calculated on the strength necessary to maintain and work a railway 200 miles long, single line, in time of great pressure from military traffic during both day and night. A large number of menials to aid in working the railway are shown; but it would not be necessary to maintain the whole of these as a permanent establishment during peace.

Establishment of one corps of railway sappers on a war footing.

Railway duties.	Detail.	Officers.	Non-commissioned officers.	Sappers.	Menials.	Total.	Remarks.
1 Manager ...	British officers	12					
1 Chief Engineer ...							
3 Engineers, Maintenance							
1 Traffic Superintendent ...							
1 Locomotive and Carriage Superintendent ...							
1 Telegraph Superintendent ...							
1 Examiner of Accounts ...							
1 Surgeon ...							
2 Reserve ...							
1 Secretary to Manager ...							
2 Traffic Inspectors ...	British non-commissioned officers...	...	20				
1 Telegraph Inspector ...							
3 Locomotive Foremen ...							
2 Carriage " ...							
6 Engine-drivers ...							
2 Station-masters ...							
1 Secretary to Examiner ...							
2 Reserve ...							
1 Assistant to Manager ...							
1 Assistant to Chief Engineer ...							
1 Police Superintendent ...	Native officers	12					
1 Assistant Traffic Superintendent ...							
1 Assistant Locomotive Superintendent ...							
1 Assistant Carriage Superintendent ...							
1 Paymaster ...							
1 Store-keeper ...							
1 Assistant Examiner ...							
1 Assistant Surgeon ...							
2 Reserve ...							
1 Head Clerk to Manager ...							
1 Ditto to Chief Engineer ...	Native non-commissioned officers	60				
6 Permanent-way Inspectors							
2 Police Inspectors ...							
4 Locomotive Inspectors ...							
4 Carriage Inspectors ...							
6 Telegraph Head Signallers ...							
8 Head Station Masters ...							
8 Head Train Guards ...							
6 Marshalls of trains ...							
4 Accountants ...							
2 Cashiers ...							
2 Store Inspectors ...							
2 Apothecaries ...							
4 Reserve ...							

Establishment of one corps of railway sappers on a war footing—concluded.

Railway duties.	Details.	Officers.	Non-commissioned officers.	Sappers.	Menials.	Total.	Remarks.														
3 Clerks to Manager ...	Office clerks and buglers	}	...	40																	
2 Clerks to Chief Engineer																					
1 Clerk to Telegraph Superintendent ...																					
5 Clerks to Traffic Superintendent ...																					
6 Clerks to Locomotive and Carriage Superintendent ...																					
6 Clerks to Maintenance																					
1 Clerk to Police Superintendent ...																					
3 Clerks to Pay Cashiers																					
1 Clerk to Surgeon ...																					
5 Clerks to Examiners ...																					
1 Clerk to Store-keeper																					
6 Buglers ...	Station staff	}	...	150																	
30 Office menials ...																					
32 Station-masters ...																					
30 Telegraph Signallers ...																					
20 Goods Clerks ...																					
6 Reserve ...																					
6 Line Jemadars ...																					
56 Points and Signal Men																					
80 Station menials ...																					
28 Guards ...																					
24 Travelling Pointsmen								Train staff ...	}	...	60			Sweepers, watermen, peons, bearers.							
8 Reserve ...																					
20 Train menials ...																					
30 Engine-drivers ...																					
48 Firemen	Locomotive and fuel staff	}	...	140			Lampmen, carriage-cleaners, &c.														
40 Mechanics ...																					
10 Fuel Sub-Inspectors ...																					
12 Reserve ...																					
50 Locomotive menials and fuel khalasies ...																					
4 Carriage Examiners ...																					
30 Mechanics ...															Carriage staff	}	...	40			Sweepers, greasers, fuel coolies, &c.
6 Reserve ...																					
20 Carriage menials ...																					
20 Gangs of platelayers for line, 120																					
4 Extra ditto for station, 24 ...																					
6 Reserve ...																					
20 Maintenance menials...	Maintenance staff	}	...	150			Cleaners, peons, sweepers, &c.														
130 Gate-keepers ...																					
4 Mounted Constables ...																					
30 Mounted Patrols ...								Police staff ...	}	...	70			For level-crossings. Patrols for line; foot police for guarding station stores, goods, &c.							
30 Foot Watchmen ...																					
6 Reserve ...																					
Total	24	80	650	350	1,104	

In time of peace, each railway corps complete would suffice to take charge of a railway with ordinary traffic about 400 miles in length. As the sudden withdrawal of the whole corps to war duties from one line might stop the working of the latter and cause serious inconvenience to the public, it would be better to distribute the members of the corps among several lines of railway, keeping the head-quarters and three companies separate at some convenient centre where there are large railway workshops, and, on war breaking out, to summon the whole to join the colors at some arsenal where they could assemble, receive their arms, ammunition, tools, &c., and prepare to march.

To ensure military training, the British officers and non-commissioned officers might be drawn from the royal engineers; the Native officers, non-commissioned officers and privates from the sappers and miners after four years' service with the companies. The peace establishment, *viz.*, head-quarters and three companies, would continue the military training of the men until each has completed nine years of service, when they would pass into the reserve.

Service in the railway corps should be equivalent in every respect to service in the companies of sappers and miners.

Lieutenant-Colonel A. M. Lang,
R.E.

As pointed out in answer to question No. 9, the sappers and miners, military works department, and trigonometrical survey will not employ more than about 150 officers of royal engineers; and as over 400 officers of that corps serve in India, employment must be found in branches of public works other than military for a very large number of officers.

The railways seem the most fitting field; and some lines of railways should be surveyed, constructed, maintained, and worked *entirely* by a royal engineer staff; officers and non-commissioned officers and privates of royal engineers and men of the sappers and miners forming the staff of the line. The training acquired by officers and men would be invaluable for military purposes. If the reserve system be adopted, these royal engineer railways would give a suitable field of employment for the reserve sappers.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers and Miners.

I do not think, from the want of training materials, and the comparative ignorance of the present men, that the sappers and miners, as a body (as the Prussian railway battalion), could for some years be employed; though I am of opinion that such an aim ought in the future to be kept in view (some of the smaller State railways, say the Kanjam or Oomarawutee lines, might be so worked); but I am quite certain it would be a great inducement and incentive to a higher class of men entering the sappers and miners were a fair proportion of berths thrown open in railways, telegraph offices, &c.; and as at home berths of real practical value are open to each sapper's effort, so on this side were men allowed to pass on to such, a very great advantage would be obtained by the army at large by the increased intelligence of the engineering branch. These effects would not, however, be perceptible for some years, as the Native is slow to seize an advantage like this were it offered.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

My views will be found at great length in a voluminous report which I signed as president of a committee assembled in Calcutta and Simla to consider this subject in 1878.

It is a very difficult and intricate question. The requirements of the railways could only be met by the formation of a special corps.

Lieutenant-Colonel D. Limond,
R.E.

I do not think the Native soldier at all suited to employment on Indian railways; steady Europeans, on the other hand, get on, I believe, very well. Railway employes in troublous times would be required at their posts, and such training as can be given them should be as rifle-men and not as sappers.

Lieutenant-Colonel W. H. Fur-
top, R.E.

I do not think it would be found advantageous to employ Native sappers in any large degree on railways. I would rather confine them to the more narrow but proper duties of sappers in cantonments (as indicated in my reply No. 32) in peace time, at the front in war; but of course there could be no objection to sappers executing particular portions of repairs to railways and of sections of new lines on occasion.

Captain W. North, R.E.

I should be much opposed to this. It would not seem to be very necessary in India, and there is no doubt that a large number of the soldiers, either British or Native, would deteriorate to a great extent.

Captain J. Dundas, R.E.

I believe this matter has been reported on by a special committee. But it seems obvious to remark that the chief object of training soldiers to railway work is, that they should be fit to make use of an enemy's lines in an invaded country, and to keep them open till the country is settled enough to allow civil establishments to come up from the rear to work the lines. But an Indian army is not likely to see any railways except those belonging to our own Government and already working with an efficient civil staff. I think it would be a mistake to interfere with the civil staff in such circumstances; though there is an obvious advantage in having officers (consulting engineers) intimately acquainted with the railways, and able, if need be, to exercise a general control over their working.

Captain W. H. Pierson, R.E.

A great objection to the employment of reserve soldiers on railways is, that calling out these men, when war is declared, cripples the establishment of the railway exactly at the time when the greatest strain is laid upon it. The formation of railway companies of engineers is desirable, if carried out on a sufficiently large scale to be really effective. The present railway rifle volunteers might also be converted into volunteer railway battalions, being already skilled in the work that would be required of them as guards, drivers, &c. For executing the heavy work of embankments, cuttings, &c., I would always employ paid civilian labor.

Captain H. H. Cole, R.E., Execu-
tive Engineer.

For strictly military railways, and for temporary tramways for military purposes, and for any questions of purely military communications, I think the organization of working companies would be of the utmost

value; but for ordinary railway works I consider the best and most economical way is to proceed by contract. I think it would be difficult, but not impossible, to make military labor available for contractors' purposes, and each case would have to be treated on merits and exceptionally.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

I would give able and healthy men considered unfit for the active duties in the field a fair trial; and feel sure that many men of the sapper corps, British and Native, would turn out well and give satisfaction.

Lieutenant H. H. Pilkington, Acting Deputy Consulting Engineer for Railways, Bombay.

The formation of railway companies of engineers is, I think, very desirable. They might be instructed in all matters connected with the construction of a line at their own station; and for training in the practical working of a railway, a company or detachment might be told off to work and maintain a section of a State line. They would thus be instructed in relaying and repairing the line, and in the working of points, signals, telegraphs, &c.

46. Please give exactly the organization you possess with the sappers for—
 pontooning and bridging (ordinary and light equipments),
 telegraph,
 field engineer park,
 siege park,
 and give general lists of your *matériel* for these services.

Major-General F. R. Maunsell, C.B., B.E.

Pontooning and bridging.—Two companies are laid down as pontooneers, but the requirements of the service for general service duties have not allowed of their being kept to this duty. No. 10 Company at Kandahar is efficient as a pontoon company, and has a few pontoons and trestles with it. No. 9 was, but has nearly lost all recollection of the art.

There exists about seventy yards pontoon bridge, Pasley pattern, eighty yards new pattern, and fifty yards trestle bridge; total two hundred yards.

There are also some sixty-four bullocks attached which enable a few carts to be taken out for practice. Four hundred would be required to move the whole two hundred yards.

A careful revision of the pattern of pontoon bridge has been under preparation for several years. A special committee reported upon this: *vide* Commandant of Sappers' letter No. 292* of 14th May 1877, to the Adjutant-General. Approval of the patterns have not yet been formally accorded.

Meanwhile such measures as have been possible have been taken to make the train as complete as possible. Under the circumstances, some of the equipment to complete two units on the new scale was estimated for, and some progress made in constructing the same.

But no pontoon training is now going on. The impossibility of maintaining complete efficiency for a military bridge train without transport, and the great difficulty of obtaining suitable transport, and also the superior importance of general service duties and equipment, put this organization in the background to some extent.

I think that the experiences of this campaign will indicate a reduced train compatible with a supply of transport.

Telegraphy.—A company was appointed telegraph company and the equipment, &c., for one unit train sanctioned under letter No. 909S., dated 21st September 1878. This train was sent to Kandahar. A similar train was sanctioned under letter No. 1240S., dated 23rd September 1878. This train was with No. 1 Division, Peshawar Field Force. After the campaign this unit was broken up, most of the stores ordered to be sent into arsenal, so that only No. 1 unit with Kandahar Column stands organized.

A careful revision of the detail, upon the experience gained, is going on under the orders of the Commandant of Sappers.

The system and detail of equipment were modified to meet the Afghan campaign, of which approval was conveyed to me. So many items of equipment have required to be modified, that the old lists of this equipment are almost useless. The new lists under consideration will show a great improvement in every respect.

But I would refer to a full report on the subject submitted to the Quarter-Master-General with my letter No. 825 of 11th August last.

The field train and park is on the scale sanctioned according to the printed table published under authority of Government in 1870. A

* Not printed.

certain equipment is attached to each company, the officer commanding the company being responsible for the charge and good order of the same. Improvements have been made as to the transport vehicles for this equipment; but to render the equipment fully efficient for service, a few good mules are necessary.

Siege parks.—No organization for field trains for the army, except sappers, nor for sieges exists. The tables above published however contain tables of siege equipment; and I lately submitted a revised report on the requirements for a division in the field: *vide* my No. 834 of 30th August last.

Mention should be made here of the workshops attached to the park and train. These shops have been established since 1863, and have been of the greatest advantage to the corps and the service. They furnish a ready means of making up special equipments and trying various experiments, of promptly repairing and making up deficiencies in the field equipment of companies, of employing usefully artizan soldiers and of training others, and of practically demonstrating to officers what can be done by the men and materials available in India. The extensive Government foundry and shops at Roorkee have contributed greatly to the efficiency of this department of the corps.

All the bridging train, including carriages and much of the field telegraph train, have been thus constructed with regimental supervision.

In order to set these shops going, and to increase their power, private orders were taken in; and so well has the system been supervised by the officers and warrant officer (Lieutenants Clayton, Harvy, Captain Blood and Lieutenant Brown, R.E., and Mr. Connell, sappers and miners), that a considerable amount of material including a steam engine, besides some clear balance of money, stands to the credit.

The regular work of the park is also rendered simpler by this arrangement; for instead of employing workmen on miscellaneous jobs with no system, a simple indent or order is made on the engineer shops.

This system has been thought so well of, that I believe it has been followed lately to some extent, at royal engineer head-quarters, Chatham.

A printing press, also photograph apparatus, arranged for the field, are also attached.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

In the Madras presidency there is no organization for pontooning and bridging, telegraph, field engineer park, or siege park. There are no pontoons, but there are some casks and spars for practice; also a few miles of insulated wire, telegraph instruments, gun-platforms, gabions, mining cases, &c., for practice at head-quarters, but no equipment is ready for active service.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

Pontoons we have none whatever, neither men, horses, harness, wagons, boats nor equipment, &c.

Telegraph train is exactly the same; we have not the smallest article.

Field engineer park.—The same.

Siege train.—The same.

The only stock we possess is shown in the accompanying list.* Nearly all is old and worn out, out even such as it is we cannot get it replenished: see circular No. 222, dated 10th January 1877, in which the ordnance department declares all our authorized equipment is simply company field service as detailed in "Tables of sapper equipment," and which is not sufficient for the company, much less corps.

* *Pontoons and bridging stores.*

44	Demi-pontoons	...	...	All utterly unserviceable.
57	Baulks	...	...	Nearly all "
80	Chesses, whole	...	...	" "
10	" half	...	...	" "
13	Hooks, boat	...	...	Fair order.
18	Outriggers	...	...	Unserviceable.
16	Saddles	...	...	"
23	Anchors of sizes	...	...	Serviceable.
1	Large boat, six oars	...	...	"
15	Standards of sizes	...	...	} Trestle-bridge gear; all nearly unserviceable.
3	Transoms	...	...
15	Baulks	...	...
17	Barrels	...	...	} Barrel-pier gear; portion in fair order for practice.
5	Gunnels	...	...
30	Baulks	...	...
51	Chesses	...	...
35	Oars	...	...
8	Transoms	...	...

<i>Telegraph stores on charge.</i>	
35 Drums	(Including 15 covered with insulated wire.)
25 Coils galvanized wire	Unserviceable.
5 Field service ink-writers	} Few, if any, of these fit for service.
4 Sounders, portable	
4 Deal-wood boxes, complete	
8 Batteries, portable	
4 Detectors, galvanometer	
33 Couplings for wires	
5 Batteries, M. B.	
70 Insulators for trees	
4 Wire reels	
<i>Mining, magazine, &c., stores.</i>	
90 Mining frames	} All long in use for instructional purposes.
61 Sheeting planks	
51 Magazine frames	
163 Splinter proofs	
6 Gun or howitzer platforms.	
3 Mortar platforms.	
231 Teak spars of sizes.	
<i>Engineer park and siege train stores.</i>	
280 Axes, pick.	447 Gabions, Jones'.
1,000 Sand-bags.	50 Barrows, hand (20 unserviceable).
5 Ladders, rope, mining.	17 Hoes.
5 Mattocks of sizes.	30 Spades, handspikes, &c.
<i>Surveying instruments.</i>	
4 Theodolites.	4 Marquis scales.
3 Telescopes.	6 Brass protectors.
2 Beam compasses.	24 Parallel rules of sorts.

47. Please quote the orders laying down the equipment and *matériel* generally for pontoon and bridging trains, telegraph trains, engineer field parks, siege parks, &c.

Major-General F. R. Maunsell,
C.B., R.E.

Original formation of pontoon train and of two companies of pontooneers—letter No. 553 of 14th March 1854, from Secretary to Government to Quarter-Master-General.

Committee to report on pontoon and trestle bridge—G. O. No. 100 of 10th January 1876; report sent in Commandant of Sappers' letter to Quarter-Master-General, No. 292 of 14th May 1877.

Original authority for military telegraph—despatch from Right Honorable the Secretary of State to His Excellency the Right Honorable the Governor-General of India, No. 34, dated London, 31st December 1867.

Formation of a definite unit train and of a field telegraph company—letter No. 909, from Secretary to Government to Quarter-Master-General, dated 21st September 1879; and of a second unit—letter No. 1241, dated 28th idem, from same to same.

Modification of equipment to suit Afghanistan approved in Quarter-Master-General's No. 5637A., dated 1st November 1878.

Engineer (sapper) equipment and siege train tables published in 1870, under authority of Government.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

There are no orders in Madras laying down the equipments and *matériel* for pontooning and bridging trains and telegraph trains. As regards siege trains and company equipments, G. O. No. 41 of 7th January 1874 is the guide.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers
and Miners.

At present there are no orders for the equipment of pontoon and telegraph trains or field park. Tables of sapper equipment drawn out nine years ago give detail of company equipment and 1st, 2nd, and 3rd class siege trains; but I have received lately Quarter-Master-General's letter (with tables attached) asking for a review on certain tables of trains drawn out in Bengal. I have forwarded papers on each except siege park. In addition, I have forwarded the general equipment necessary in a railway company, and further tables I to VIII, marked R, which give the necessary plant for purely instructional purposes.

48. Supposing that it were decided that the corps of sappers and miners in your presidency were to place in the field the several details of field park, pontoon, and telegraph train, within what time do you consider that they could be equipped and set in motion?

Major-General F. R. Maunsell,
C.B., R.E.

The general service equipment of companies are always kept ready, only wanting transport. All engineer equipment with the sappers is ready to take the field the moment transport is supplied.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

If the corps had to place in the field suddenly a field park, pontoon, and telegraph train, I should indent on the Madras arsenal for them, and should be told that there were none in store, but that I could have a third class siege train, according to the Bengal tables. Before sailing for the Mediterranean, I indented for a third class siege train, table I, and for company equipments for two companies under table II, and took the electric apparatus and wire that was at head-quarters for practice, and added a few things that were wanted, for which Government gave special sanction.

The pontoon and telegraph train would arrive from England in three or four years; the siege train would be ready in about a week.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers and Miners.

This is a very difficult question to answer, as the corps does not possess a single article of the stores I consider necessary. I do not believe the ordnance department have to hand any of the really important articles (not in Bombay), such as pontoon boats, wagons, wire, gun-cotton, &c.; but it would be better to refer to them, and enquire what they really had got. When a small field park was made up for the Malta expedition, all but the simplest plant was unattainable; and even that was of most ancient pattern.

The Officer Commanding No. 5 Company in the Malta Expedition reports: "I think that the tables of stores now authorized for a company of sappers require a most thorough revision; they are not suited to modern warfare. I would also point out that the ordnance department appear to be unable to supply even the present equipment. No. 5 Company was by no means properly equipped when proceeding to Malta."

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

I don't quite understand this question. If the sappers and miners had to place a field park in the field, that park must be kept at its full strength at head-quarters, and could be placed in the field as soon as transport was provided.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

The great drawback is the want of a proper and organized transport train. No body of men, far less the material of park, pontoon, or telegraph train, can be moved without a properly organized transport. No description of animals can be trained in a short time. Horses, bullocks, mules, all require training; so do their drivers. The whole matter is in a nutshell; provided the transport keep it in marching order, and either train is ready to move as soon as the men. This must be done before long, and the sooner the difficulty is faced the sooner will it be overcome. At present there is no attempt at a proper organization of transport for sapper trains.

49. Please state the date on which you received the order, or knew that the companies ^{Bengal} ^{Madras} ^{Bombay} sappers and miners were to proceed on field service in Afghanistan.

Detail the steps taken by you to complete the companies for service, and when they left.

Major-General F. R. Maunsell,
C.B., R.E.

The system under which the general and bridging equipment existed, and notably the power added by the engineer workshops, enabled me to despatch three companies to Mooltan and the head-quarters and two companies to Peshawar immediately they were ordered; that is, on the earliest date allowed by the order, without any delay at all. Very heavy work was entailed in the field telegraph business, owing to the lateness of the sanction; but by help of the workshops the difficulty was got over, and I think I may take the credit in believing that so complete and extensive an equipment has never been prepared in a shorter time.

One unit moved to Mooltan. The second unit was ready for the field by the middle of November.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

The B and E Companies received orders to be in readiness for service on the 19th November 1878. After medical inspection and weeding the companies of unfit men the complement was obtained of sound sappers. Valise equipment was obtained from the Madras arsenal, and the company equipments were as far as possible completed. The B and E Companies left Bangalore on the 5th December.

The C and K Companies were warned on the 15th December, were similarly strengthened by the substitution of good men for the old and weak; and the K left Bangalore on the 19th December. The company equipments were supplied by the Madras arsenal just in time to be taken towards Afghanistan. Personal equipment, except waterproof sheets, were supplied before leaving the Madras presidency.

Lieutenant-Colonel J. Hills, B.E.,
Commanding Bombay Sappers and
Miners.

No. 2 Company received orders to be held in readiness on the 15th November, and left Kirkee on the 6th December 1878.

No. 5 Company received orders on the 27th December, and started on the 13th January 1879.

Under the present system, it takes three or four days to get a company off for service. If, however, proper arrangements were made, about 1½ days would suffice.

On receipt of the orders, I forwarded the accompanying letters* to Major-General Primrose, Commanding the Division at Poona, who was to command the Bombay Reserve Column, requesting certain matters of equipment, &c., might be obtained. The companies, however, had to leave as they were then equipped.

* Letter No. 1115A. of 1878.

Letter No. 1129A. of 1878.

Letter No. 657Q. of 1878.

No. 1115A., dated 26th November 1878.

From—The Officer Commanding Bombay Sappers and Miners,
To—The Station Staff Officer, Kirkee.

With reference to the orders issued to hold a company of sappers in readiness for service, I would draw attention to the following remarks, and request sanction to the several suggestions.

2. At present, under the peace organization of the corps, there is only one officer, royal engineers, Lieutenant Rice Henn, in command of No. 2 Company. At least one other officer, royal engineers (Mr. Waller or Mr. Young), should be attached to the company, as three would be greatly preferable. Were Mr. Waller or Mr. Young attached early, it would tend to push forward matters. The third officer may be obtained either from one of those arriving from Cyprus, or from one of the young officers ordered out from home, who would arrive in sufficient time to accompany the force.

3. Another young engineer officer should accompany the field park for the three companies of sappers. He should have under his orders a conductor (for whom I would beg to recommend Mr. Fox) and a few sappers, lascars, and artificers. A table of equipment containing the details of officers and men and materials will be forwarded for approval in a few days.

4. I would next bring to notice that the Europeans attached to the sappers have no valises or valise equipment, and have simply the old condemned heavy pouch, with nothing else. Those sent to Malta had kit bags furnished them; but this is not what is now demanded: it is the valise and valise belts, straps, &c., in order that the men may carry some few personal effects on themselves. The kit bag is carried by the transport, and may not be available for hours—nay days.

The large condemned pouch should be exchanged for the new system of two small pouches in front.

5. It has been frequently pointed out, and is a subject which has been so often ventilated as to require simply mention, viz., that a sapper has not only to undergo the fatigues of marches similarly to the infantry, but has often to work for several hours. His accoutrements weigh rather more than that of his comrade of the line; and yet in addition he has to carry a tool or entrenching implement of some sort. He is further oppressed and burdened by the drag and pressure of some extra straps, &c., which are necessitated by the extra weights and materials he is forced to carry. Hence to prevent complete prostration it is essential to ease him to the utmost extent in every practical way. For this purpose I beg leave to alter the present equipment of the Native sapper, and substitute the Oliver system,—not all the bags, &c., but the general arrangement of the fixtures, in order that the sapper may carry his tool and his great-coat without the severe pressure now entailed, and that he may get rid of the terrible and cumbersome pouch in rear which prevents the tool or great-coat from being satisfactorily placed. If the Oliver equipment is not sanctioned, it is earnestly urged that the new valise equipment may be ordered. Anything would be better than the present condition, the practical result of which is annihilating.

6. Permission is requested for the issue of a turban to be worn over the forage cap: the small *puggree* now adopted does not sufficiently protect the head from cold. Working clothes of a warmer material are being made. *Pullees* for the legs and canvas gaiters are required.

7. The amount of cooking utensils allowed per Native company is 160lbs. As the sapper company has been increased to 105 men, 210lbs. will become the proportionate allowance. This is very far below the sanctioned scale; and hence permission is demanded to institute and carry out the requisite alterations in their present cooking utensils to meet this weight. The committee report of 1876 recommend 3lb. weight per sepoy. This would raise the allowance to 350lbs. per company; but still further reduction will have to be made in the weight of cooking utensils as proposed by the Committee, to suit the emergencies of the present service.

8. As the sapper requires a working-suit in addition to the equipment of other soldiers, I have to request that sanction may be obtained for him to be allowed in addition to the usual 10lbs. the weight of a complete working dress suit. The exposure and necessary accidents and tear and wear of daily work are most destructive to ordinary clothes, so that in truth he requires an extra suit. The extra weight entailed, considering the small relative number of sappers, is but small.

9. Further, I would respectfully point out that the more the work demanded from any engine, the more the supply of coal is necessitated. Hence, as the sapper is employed on heavy and continuous manual labor, where the waste of strength and tissue is great, I would beg to request sanction that an addition to the ordinary Native ration may be allowed him either of meat to those who will eat it, or of some other substantial substance; and that to those who drink spirits a small tot of rum may be daily issued, to others who may prefer it, a small daily issue of coffee or cocoa or tea. The work performed by an underfed and ill-conditioned man is not only little in quantity, but generally indifferent in quality, as the necessary energy is wanting.

10. Accepting the valuable report of the Committee of 1871 as published in the Roorkee Equipment Tables as a basis for working and applying to it the results of the Royal Engineer Committee's reports, as embodied in the army circular of 13th December 1877, which it may be said were specially published in anticipation of immediate service, I have after careful deliberation and thought drafted two tables, one for the complete equipment of a company proceeding on service, the other for a small field park to accompany the head-quarters of a small force, from which engineering stores, &c., may be drawn. This latter is totally distinct and apart from a siege train, for which a table, if considered necessary, will be drawn out. It merely furnishes the probable immediate wants of a small force on service for ordinary movements.

11. I am well aware of the fact that the ordnance have not in the arsenal many of the stores laid down in the tables, such as Berthon's collapsable boats, the two rafts of Blanchard's light infantry pontoons, a sufficient and new supply of gun-cotton, &c., &c.; but if these items are ordered at once from England, they would arrive before the assembly or advance of the force beyond our borders. With regard to the latter material, gun-cotton, I would point out that it is four times as effective, weight for weight, as gunpowder, and hence will save carriage most materially, as a large quantity of explosive mixture is necessary.

It has, however, to be carried in water-tight boxes; and hence a small ammunition wagon will have to be constructed for its transport. Enough could be carried by one or two light wagons, drawn by two mules each.

12. Finally, I would respectfully observe that in all other armies, as well as in England, each engineer officer is allowed a certain extra amount of weight on account of the several books of reference, instruments, &c., &c., he is supposed to take along with him wherever he may be sent. Nothing has been apparently mentioned concerning this; and hence sanction is now requested for the usual amount of excess, as is granted in the English service.

In forwarding these recommendations, I trust I shall not be considered to demand more than is necessary, as contrasted with other Native soldiers. I would only observe that sapper requirements are special, their duties under all circumstances heavy; that during peace their extra working pay enables them to live better and eat more, but that this latter resource is denied him on service, as he cannot obtain the extras he can during peace in cantonment; and hence at the very period his services are most required, he is liable to be placed in a position in which he cannot realize his necessary wants, and hence his physique must deteriorate unless some arrangements are made for him.

Finally, I would point out that the companies just arrived from Cyprus are armed with the Henry-Martini rifle; and I would beg permission, as I have been given to understand is to be carried out with the Madras companies, to hand over the Henry-Martini rifle of these two companies to the company ordered on service, so that the men may have all similar weapons. The corps, having once received them, would suffer in *esprit*, and would lose confidence in themselves if armed with the artillery carbine.

No. 1129A., dated Kirkee, 29th November 1878.

From—The Officer Commanding Bombay Sappers and Miners,

To—The Assistant Adjutant-General, Royal Artillery and Royal Engineers, Poona.

Though not appointed to the field force which has been placed under orders for service, I consider it my duty, as the senior officer on military duty, to lay the following observations before His Excellency the Commander-in-Chief in relation to the field park equipment which has been sanctioned by the Government of India to accompany each column moving to the front.

2. There are three items, "intrenching tools," "survey instruments," "laboratory stores, &c.," weighing about 182 cwts., or the load of 70 camels, which have been simply arrived at by doubling the equipment for a European regiment of 800 men, as set down in table 5, page 29 of the Roorkee Equipment Table.

3. This equipment was drawn up in 1870, since which time many ideas have altered, and was moreover intended not in any way as a representative of a field park, but what a regiment without any sappers or engineers, separate by itself, should carry. With all due deference, I would point out that it has been formed on too extensive a scale for purely intrenching tools to the forces or columns, and is wanting in also the most necessary light and important materials which make up the perfection of an engineer train.

4. After the discussion on "experiences derived from the late wars," the home authorities detailed early this year a supply of intrenching and other tools to each regiment of 1,000 men. This supply is well considered, and ample to meet all practical wants. They are—

Axes, felling	...	...	25	Axes, pick, light	...	...	150
Axes, hand	...	...	54	Bars, iron	...	...	4
Hooks, bill	...	...	56	Shovels, light	...	...	150
Mallets	...	...	8	Shovels, heavy	...	...	9
Axes, pick, heavy	...	...	6	Spades	...	...	10

Allowing that one-third of the force was on detached duties, on guards, and one-third as supports, and one-third on works, double of the above number would furnish ample for the division or column for ordinary field-works. For extraordinary cases 25 per cent. in excess would answer. The total number thus supplied would be considerably under the weight of the field park sanctioned; and the balance, if made up of other articles necessary for work, would tend greatly to increase the efficiency of the force.

5. In the list of stores which follow the above three items, there is nothing of weight or moment, excepting the scaling ladders (in addition to which, or in substitution for which, a few of the longest and strongest bamboos should be taken), till we arrive at the items of powder, fuze, &c., on which the following remark is made—"if required, &c." From the nature of the country in which the projected operations are to be conducted, the bad roads, the rock and precipitous paths along hillsides, and also in beds or channels of streams, to say nothing of the embattled walls of their forts built of most tenacious clay, difficult to breach, there is indicated an absolute certainty of great need and constant

employment of explosives as gunpowder, gun-cotton, &c.; and so much were these circumstances appreciated in the war of 1839-40, that with the force of Sir J. Keane no less than 10,000lbs. of gunpowder were taken purely for engineer purposes. As, however, gun-cotton is lighter and more powerful than gunpowder, it is suggested that a considerable quantity of it should be adopted into the field park.

6. Finally, as regards the circular, attention is requested to the proposed animal draught. In it it is laid down that the camels are to bear a load of $3\frac{1}{2}$ cwts. in addition to their *kajawahs*. I would respectfully state that the camel in such a country, ill-fed and over such roads, cannot carry such loads, and that two-thirds of the amount is the utmost that ought to be placed on any animal. It further proceeds to place a burthen of lbs. upon a bullock-cart in addition to the weight of the latter, which may be approximately placed at from 800 to 1,000 lbs. This is even a more fatal weight, one which, I feel assured, the bullock cannot sustain; and that the nature of the country, stony as it is in the plains and worse in the beds of the rivers, is fatal to bullock draught. That they failed signally in the former campaign history teaches us; and they have already done so in the commencement of this one, if reports are true. Hence we have a strong argument against their employment as beasts of draught if such can be avoided. The only advantage lies in the fact that they can be made into food for the army, if ever hard pressed for supplies.

7. I would therefore beg, as the force to be formed is drawn from Bombay, to draw attention to the subject, and would advocate a train somewhat similar to the equipment proposed (table forwarded) for a field park being taken after it had been inspected and approved of by the commanding engineer appointed to the force.

8. The field park, which is intended as a distinct and separate thing entirely from a siege train, might be supplemented by a few intrenching tools and implements for the employment of the regiments attached to the division, or for any outside laborers who may be obtained.

The additions proposed would be approximately—

Sand-bags	...	1,000	Hand spikes	...	10
Knives	...	60	Hatchets	...	20
Tools, axes, felling	...	20	Showels, light	...	400
Tools, axes, pick, light	...	400	Helves of sorts	...	400
Bars, crow	...	10	Spades	...	40
Hooks, bill	...	100	Bamboos, medium	...	200
			Scaling ladders—6.		
Bamboos, large, for scaling	...	12	Augers	...	6
Saws, hand	...	10	Hammers, hand	...	4
Saws, cross-cut	...	10	Spikes	...	20
Chisels	...	20	Powder, &c.	...	200 lbs.

9. As the transport supply will always be a matter of difficulty, as also restocking of supplies, I am of opinion that less than the above amount should not be taken, as it fairly represents the varied essentials for progress in the present day.

10. It may be added, as has been already mentioned in a former letter, that the late Sir Henry Durand, after his experience in Cabul, lays down the weight and magnitude of a park and train necessary for any army of 10,000 men in Afghanistan as that of at least 220 camel loads.

He further pointed out that each company of sappers had three camels attached for the purpose of carrying their intrenching tools, marching with the company to work. This should undoubtedly be sanctioned. By carrying a portion of the necessary tools, they would ease the men on the march: for immediate work one section of sappers might carry their tools, being relieved next day by second section, and so on.

11. I would further impress the necessity of having a couple of long timber carts, or cart and timber, for the purpose of carrying the long bamboos for escalading, and also a certain quantity of long timber about 22' x 6' x 5" and 22' x 5' x 4" to be employed, should necessity require, in making barge-pier rafts, gyn, &c.

No. 657Q., dated Kirkee, 2nd December 1878.

From—The Officer Commanding Bombay Sappers and Miners,

To—The Assistant Adjutant-General, Poona.

With reference to the scale of extra articles of field kit allowed by No. 739K. of 9th ultimo, from Secretary to Government of India, Military Department, to Adjutant-General in India, I have the honor to request respectfully that the Major-General Commanding may be pleased to urge the issue in addition of a pair of English boots to each Native soldier of No. 2 Company Sappers and Miners, as were done in the Malta expedition. It is not possible to obtain regimental English boots for the sepoys, and those which are ordinarily in wear are not capable of resisting the effects of long and frequent marches and severe sapper's work, which will in all probability have to be undertaken in the present expedition.

No. 468A.T., dated Bombay, 9th December 1878.

From—The Adjutant-General, Bombay Army,

To—The General Officer Commanding Poona Division.

With reference to the communication as per margin,* forwarded under your endorsement No. 3426

* Letter No. 657Q. of 2nd December 1878, from the Officer Commanding Sappers and Miners, urging the issue of a pair of English boots to each man of the sappers and miners proceeding on service.

† Letter No. 739K., dated 9th November 1878, from the Government of India, to the Adjutant-General in India (Government Resolution No. 5512, dated 14th November 1878).

of the 4th instant, I am directed to intimate that the Government of India have distinctly ordered that no deviation from the scale of clothing laid down† will be permitted; and I am to request you will be so good as to point out to the Officer Commanding Sappers and Miners that he should have made arrangements to supply the whole of the men of the corps with good and serviceable boots.

No. 789K., dated Simla, 9th November 1878.

From—COLONEL H. K. BURNE, C.B., Secretary to the Government of India, Military Dept.,
To—The Adjutant-General in India.

I am directed to acknowledge the receipt of your letter No. 4310D., dated the 30th October 1878, and to intimate in reply, for the information of His Excellency the Commander-in-Chief, that the Government of India are pleased to sanction the adoption of the scale therein proposed for the issue of articles of extra field kit to the British and Native troops proceeding on service, *viz.*—

Clothing.
Field operations, Kabul.

For British troops.

- 1 jersey.
- 2 pairs of warm socks.
- 1 pair of mittens.
- 1 extra blanket.
- 1 waterproof sheet (English) for each non-commissioned officer and man, with *poshteens* at 15 per cent. of strength.

For Native troops.

- 1 jersey.
 - 2 pairs of warm socks.
 - 1 pair of mittens.
 - 1 blanket.
 - 1 waterproof sheet (Cawnpore) for each Native officer, non-commissioned officer and man, with *poshteens* at 15 per cent. of strength.
2. From the above scale, I am to remark, no deviation will be permitted.

No. 791K.

Copy of the foregoing forwarded to the Secretary to the Government of Bombay, Military Department, with reference to his telegram dated the 21st ultimo, and for the information of His Excellency the Governor in Council.

Captain W. North, B.E.

The order was received on the 24th September 1878, and this was the first I knew of it. The first detachment marched on the 26th of the same month.

They, and all the rest, who marched at different intervals later, were complete in every respect in equipment, except in water-bottles.

The only steps I had to take were to obtain these.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

I was left in command of the depôt at Roorkee with all the officers under my charge (except light field officers) with orders to push on the telegraph train, wagons, and poles, &c. (wire had gone on), with all despatch. Every effort was made, and in two months a fair train was got ready. Bullocks were, however, very scarce; and I had to buy some and obtained a few (four pairs) from the Ranees of Landora, near Roorkee. The whole of this train was not, however, called into use, as the army stopped short of Cabul.

50. Was there any deficiency discovered in the equipments, &c., on service?

Major-General F. R. Maunsell, C.B., B.E.

The engineer equipment of sappers were generally good. The regulation scale had lately been found to require revision as to various detail; and a revised scale suitable to the service in Afghanistan was laid down last year and taken. Sundry further improvements were made in the field as found serviceable, such as a definite demolition equipment. Improvements have been made in the vehicles; which the existence of the superior workshops in the sapper park enabled us to construct.

A notable deficiency in that all-important part of equipment, namely, the transport, did exist, and was only made good by a special arrangement, under which mules intended for another purpose were made available. This deficiency ought never to again occur: it has for many long years been a great hindrance to requirements in the field. Sappers wanted in a hurry are found toiling up urging on inferior transport.

Colonel H. N. D. Frensdorff, r.S., Commandant "Queen's Own" Sappers and Miners, Madras.

There were some deficiencies in the equipments, as the campaign was exceptional, such as crowbars and jumpers; but sets of bricklayers' tools should be added to the equipment. At Malta and Cyprus it was necessary to indent freely for spun yarn, nails, planks, scantling, and paint. A greater supply of bamboos should be taken. The British force at Malta and Cyprus were perfectly astonished at the many uses to which bamboos were put. An extra blanket and waterproof sheets were given in Afghanistan.

Lieutenant-Colonel J. Hills,
B.E., Commanding Bombay Sappers and Miners.

The officer commanding the two companies has constantly complained of the insufficiency of their equipments. He reports that "the supply of powder, fuzes, &c., is ridiculously inadequate; that jumpers, &c., for blasting were all worn out, and that they had no small field park (see my letter* No. 1129A., paragraph 8) to fall back upon; that had not the siege train been on passage and they had obtained 15 jumpers, 3 siege platforms, &c., they would have been put to very great straits; and finally, that he had called for a committee to inspect the state his tools were reduced to, but that the general officer commanding would not allow the committee to assemble, as he did not consider it necessary. Indents were ordered to be made out on the arsenal at Quetta, but it appears doubtful whether anything was supplied. The two companies started with purely their company equipment, as laid down in table II, sapper equipment. This consists of a set of entrenching tools and one chest of artificers' tools of each sort; little or nothing more. There were no extra materials for blasting, no wagons, no light bridge equipment, or other stores such as was evident would be required in such a campaign. A comparison between the amount taken by the two companies and what is laid down in army circular of 13th December 1877 for one company field service, not to add the proportion of field park, will best expose the deficiencies.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

The equipment of the sappers was efficient. A report on this subject, suggesting some minor alterations, has been forwarded.

Captain W. North, B.E.

No; except that lascar pals appear more suited than sepoy pals for the sappers.

I do not allude to the extra warm clothing absolutely necessary for such a campaign as the last, as the men could not be expected to keep up this.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

Transport was the great deficiency. Skilled artizans too were difficult to obtain, as they did not like leaving their homes and going into Afghanistan, which country has a bad name throughout India.

51. Please state the classes of articles of all kinds of equipment, clothing, &c., which you had to obtain for the company or companies of sappers on field service. How did you get them; and what time did it take?

Colonel H. N. D. Prendergast,
B.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

Khaki clothing and boots were purchased in the bazaar at Peshawar. The extra blankets and waterproof sheets were supplied by Government, about the middle of February.

Lieutenant-Colonel J. Hills,
B.E., Commanding Bombay Sappers and Miners.

Statement of stores and clothing taken with each company is attached. The store items shown in list† were all in corps store-room, and were sewn up in gunny ready for departure within two days from time of receiving orders to pack. The clothing was drawn *en route*—portions at Sukkur and portions at Dadur. All had been drawn by the end of February.

† *Intrenching and mining tools and implements.*

No.	Description.	No.	Description.
600	Bags, sand, canvas.	200	Lines, ratline, yards.
50	Bamboos, medium.	6	Rammers, earth, iron.
1	Barrow, hand.	4	Tapes, tracing, bundles.
1	" mining.	15	Tools, axes, felling, American.
1	" wheel.	81	" " pick.
6	Blocks { double S.	"	" " " "
	{ single S.	5	" " " miners.
6	Chokers, fascine.	100	" kukries or bill-hooks.
3	Forks, sap, long.	25	" mamooties.
2	" " short.	5	" push picks.
25	Knives, gabion.	25	" sickles.
6	Ladders, rope, mining.	81	" shovels, common.
6	" " scaling, 30 feet.	5	" " mining.
5	Lamps, tin, miners.	25	" spare helves, axes, felling.
1	Lantern, dark.	25	" helves, axes, pick, spare.
1	Level, field service.	15	" " mamooties "
5	Lines, log, skeins.	25	" " shovels "

Intrenching and mining tools and implements—continued.

No.	Description.	No.	Description.
<i>Forge kit.</i>			
2	Anvils, small.	1	Poker.
2	Bellows, brazier's, with bolsters.	1	Shovel.
1	Beak iron.		
<i>Bricklayer and mason's tools (1 set).</i>			
1	Bevel, wooden blade.	6	Gimlets, nail.
2	Buckets, with strap complete.	6	" spike.
1	Chest, 2' 6" x 12" x 9".	4	Gauges, firmer.
3	Chisels, brick.	4	" socket.
3	" mason's.	1	Hammer, claw.
1	Hammer, brick.	1	" rivetting.
1	" mason's.	1	Knife, drawing.
1	Level.	1	Line, chalk, with reel.
1	Line, chalk, 20 yards, with pins.	1	Mallet.
1	Mallet, mason's.	1	Pincer, common.
2	Moulds, brick, 9" x 4½" x 3".	1	Plane, bead, ½".
6	Plugs and feathers (set).	1	" jack, double iron.
1	Rule, 2 feet.	1	" plough, with 8 irons.
1	" plumb with bob.	1	" rebate, skew, 1½".
1	Square, ground.	1	" smoothing, double iron.
1	Trowel, brick.	1	" trying.
1	" mason's.	1	Pot, glue, double.
1	" plasterer's.	3	Punches of sizes.
6	Adzes, country (busulah).	1	Rasp, half-round, 12".
1	Adze, Europe.	1	Rule, 2', common.
6	Augers of sizes.	1	Saw, hand, Europe, 26".
6	Awls, brad.	6	" " country, 18".
1	Bevel, steel blade, 12".	1	" tennon, iron back, 19".
1	Brace or stock, with 24 bits.	1	" turning or compass.
1	Brush, glue.	1	Screw-driver, 14".
2	Chests, 2' 6" x 12" x 9".	1	" " 6".
2	Chisels, cold, of sizes.	1	Set, saw.
4	" firmer.	2	Shaves, spoke, 4".
4	" mortice.	2	" " 3".
4	" socket.	1	Spanner, McMahon's, 15".
1	Compass, common, 6".	1	Square, steel blade, 18".
1	" with sweep, 10".	1	" " " 9".
2	Files, half-round, 14".	1	Stone, grinding, 10".
18	" saw, of sorts.	1	" oil, in frame.
1	Gauge, mortice.	1	" rag.
2	" single.	1	Vice, hand.
<i>Laboratory and miscellaneous stores.</i>			
2	Bolts, draw, with padlock fastenings.	1	Match, quick ... lbs.
1	Borax ... lb.	5	" slow ... "
2	Boxes, camel, trunk ... pairs.	1	Measure, powder, copper.
4	" mule or bullock ... "	80	Nails and screws, 40 lbs. of each ... lbs.
10	Brass ... lbs.	20	Needles, sewing.
8	Brushes, paint.	5	" sail, 1st size.
5	Candles, wax ... lbs.	5	" " 2nd "
20	Canvas, Europe ... yards.	10	" packing.
1	Chalk ... lbs.	2	Oil, mustard ... galls.
80	Charcoal ... "	2	" linseed ... "
2	Funnels, copper.	10	Paint, whitelead ... lbs.
20	Fuze, Brickford's patent ... fms.	10	Paulins, camel.
20	" hand grenade.	10	" bullock.
2	Glue ... lbs.	20	Portfires.
1	Grindstone, 18".	2	" sticks.
20	Hand grenades.	100	Powder, ordnance ... lbs.
3	Hides, bullock.	1	Pump, Norton's tubes.
2	" buffalo, half.	1	Reel, hand, with lines.
30	Iron, bar, rod, and country (or old), 10 lbs. of each ... lbs.	2	Rods, measuring, 10'.
2	Knives, laboratory.	5	" " 6'.
4	Kajawals, camel (when carts are not obtainable) ... pairs.	5	" " 4'.
4	Kajawals, mule or bullock ... "	150	Rope, Europe, 3" ... fms.
1	Lantern, Muscovy.	150	" " 1½" ... "
1	Lead for solder ... lbs.	6	Ropes, drag { heavy 3" rope. light 2" " ... lbs.
2	Linen doosootia ... pieces.	4	Resin ... lbs.
20	Locks, pad.	1	Scales, copper, small, with weight.
2	Mallets, tent.	2	Scissors, laboratory.
2	" picket.	75	Spikes, jagged.
50	Matches, lucifer ... boxes.	10	Spun yarn ... lbs.

Intrenching and mining tools and implements—concluded.

No.	Description.	No.	Description.
10	Steel ... lbs.	1	Box, compass, mining.
1	Tin, block ... "	1	Chest, 2' 6" x 12" x 9".
5	" sheet ... sheets.	2	Copper needles, 4' long.
5	Thread, cotton, country ... lbs.	1	" " " " "
3	Twine, hemp, Europe ... "	5	Hammers, sledge.
10	" " country ... "	4	" striking.
80	" moonge ... "	4	" hand or short-handled.
1	Zinc for solder ... "	3	Jumpers, 5½' long, 1½" bit.
3	Bars, boring, 2' long 1½" bit.	1	Powder horn.
3	" " 2' " 3" "	1	Priming wire, brass, 16 gauge.
3	" " 3' " 1½" "	1	Scraper, 4' long, 1½" bit.
3	" " 4' " 3" "	1	" " 7' " 3" "
2	" " 7' " 3" "	100	Tubes, india-rubber.
3	" crow 2½'	12	Wedges.
6	" " 4½'	1	Worm, 7' long, 1½" bit.
1	" tamping 4' 1½" bit.	1	Saw, pit.
1	" " 7' 3" "	1	Saw, cross-cut.
2	Bellows, country.		
<i>Surveying instruments, books, and stationery.</i>			
2	Bannerols, with staves.	1	Logarithms, table of.
1	Case, mathematical.	23	Paper, drawing, sheets.
1	" sketching.	2	Pencils, dozen.
1	Chain, measuring, with arrows.	1	Penknife, office.
1	Clinometer (with case complete).	1	Plane-table.
50	Cloth, tracing, feet.	2	Plumb-bobs.
1	Color, box.	4	Protractors, card-board, circular.
1	Compass, prismatic.	1	Boring rods (set of three).
2	India-rubber pieces.	4	Scales, card-board, engine divided.
6	Ink bottles, surveying, with straps complete.	1	Sextant, pocket.
1	Level, spirit, small.	3	Tapes, measuring, 100'.
		1	Telescope, field.
<i>Smith's tools, one set, as follows.</i>			
1	Brace, iron, with 3 bits.	1	Hammer, sledge, 10 lbs.
1	Calliper, 10".	1	" " " 7" "
2	Chests, 2' 6" x 12" x 9".	1	Holdall, leather.
1	Chisel, cold.	1	Pincers.
2	Chisels hot.	2	Punches, cold.
2	" hand.	3	" hot.
1	Compass with sweep 10".	1	Rule, common.
2	Cutters, anvil.	1	Saw, bow, 10".
1	Drill, bow, with 12 bits complete.	1	Screw-driver, 15".
10	Files, flat, 14".	1	" " 6".
6	" " 10".	1	Screw-plate, hand, with 10 taps.
4	" " 8".	1	" " medium, with taps.
4	" half-round 14".	1	" " small.
4	" " 10".	1	Spanner, McMahon's, 15".
4	" round 12".	1	Square, iron, figured.
2	" " 8".	1	Stocks and dies, Whitworth.
3	" rubber 16".	1	Stone, oil.
2	" square 10".	1	Tong, bolt.
2	" " 8".	1	" close.
1	File, 3 square, 12".	1	" fore-bit.
1	" " 7".	1	" hammer.
2	Files, warding, 5".	1	" hollow-bit.
2	" " 3½".	1	" pleyer.
1	Hammer, hand.	1	Vice, bench.
1	" rivetting.	1	" hand.
1	" setting.	1	" standing.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

Poshteens, overcoats, flannels and boots had to be obtained. The clothing department at Calcutta promptly responded to the calls made upon them, as did various well-to-do contractors. I consider that a great-coat (English), a pair of English boots and an English blanket, with two pairs of warm English socks, in addition to the ordinary clothing provided by Government to each soldier, are indispensable for service in a country like Afghanistan. Warm mittens too are useful, and *puttees* should be worn by all; the lighter the kit the better. I think all the above are indispensable and could be carried by each man without overburdening him. A percentage of *poshteens* only and some warm clothing is also necessary for all kinds of Indian transport animals. Thousands of these died from cold and wet. The clothing issued to followers was neither warm nor well made.

52. Apart from the equipment of the companies of sappers, how were the general engineer stores for the army in the field procured; and was there any delay in getting them, or any deficiency either in the quality or quantity of the articles?

If you consider improvement can be effected in this respect, please give any practical suggestions for the same.

Major-General F. R. Maunsell,
C.B., R.E.

From the arsenal gone were made up, owing to the arsenal being unable to supply them. Great delay occurred owing to there being an insufficient supply in arsenals. The quality of the stores obtained was generally good. All deficiencies were finally made good. I note here the want of more complete apparatus for demolition in the ordnance department, that is, of proper detonating fuzes; for gun-cotton has an enormous advantage of power, and I used a large quantity; but I was obliged to always use electricity, which is often inconvenient and not obtainable.

Major-General A. Fraser, R.E.

With respect to the arrangements for the engineer organization in the late war, I should say from experience of the correspondence that passed at head-quarters that a mistake was made in appointing so many commanding engineers. One commanding engineer under the Commander-in-Chief, who would be responsible for all the arrangements, and one or more field engineers with each column, with assistant field engineers under them, would have been ample with such small columns. As it was, the public works department had to arrange for a reserve depôt. Neither the royal engineer officers nor the arsenal people knew where the stores were to be got. Where there are large separate army-corps in the field, each should have its commanding engineer working up to a chief engineer under the officer commanding-in-chief; but no separate armies can work together in the field satisfactorily unless under one head, who will be responsible for all the arrangements.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own" Sappers and Miners,
Madras.

The general engineer stores for the army in the field were procured, I believe, from the arsenal at Peshawar. In the first division the stores were ample; but in the second division stores were often deficient, but the stores generally were good. There should always be an officer of experience in charge of the park, with a staff of distributors and artificers. The detail of stores should be submitted to the commanding engineer before the commencement of the campaign. He would omit and add such articles as were not required or were specially required for the contemplated operations; and he should arrange the order in which stores should be forwarded to the front. The commanding engineer has considerable powers for sanctioning expenditure in the field; but it would seem expedient to give him power before the campaign to procure such things as will be necessary.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers and Miners.

As far as I can learn, there was a siege train got together at Sukkur and forwarded on after the advance of the troops. This was collected very slowly, and would not have been up to the front in time had any siege of Kandahar been necessitated.

As regards the Malta expedition, orders were issued to the sappers and miners to the effect that two companies should be got ready at once, and that with them was to be sent a small park which, as the destination of the force was unknown, was to be as complete as possible. (Such an order was neglected in the Afghan force.)

In accordance with these instructions, an indent was made on the ordnance department, and two officers were sent to Bombay to draw the stores, pack them, and place them on board the transport vessel. The result was that few engineering stores were found in the arsenal, and such as were in stock were of ancient pattern. Even the *kajwaks* had to be obtained by telegraph from Allahabad. It must, however, be understood that no pains or exertions were spared by the ordnance in hunting up anything obtainable (which was *not in the arsenal*) locally and supplying the force with it. Still to improvise a field park on a sudden is more than is to be expected; and unless a proper siege and park is kept up in the arsenal, and inspected half-yearly by an engineer officer, the sapper and miner equipment can never be thoroughly efficient.

With regard to the improvements to be effected, it may be asserted that the sappers of a force can never be efficiently equipped so long as the present state of things obtains, *viz.*—

The ordnance department have as their guide and authority for procuring and supplying sapper stores—

(a) Table II of sapper and miner siege train and company equipment, Kirkee, 1870.

(b) Vocabulary of ordnance stores for British India, 1873.

Now since the issue in 1870 of table II, which is headed engineering equipment for a company of sappers and miners, general service, so much has been learnt and so much done to increase the efficiency in point of *material* of the engineering branch of armies generally, that the said table II is far from being up to the mark. The whole compilation is necessarily behind the times. What class siege train, if any, is sanctioned for the Poona arsenal or the grand arsenal at Bombay I do not know; but should there be any, its details would be far from coinciding with that of "stores to be maintained for siege requirements, royal engineers," published in Army Circular, 1st January 1870-71.

Again, the British India Ordnance Vocabulary, 1873, is as regards engineering requirements, equally behind the times. Without going into details, it will suffice to say that the home service or British vocabulary of stores of 1876 has a section (VII) thus headed: "Stores of a nature special to engineer equipment generally and torpedo stores, diving apparatus, tools for earth-boring, mining, platelaying, telegraphy, signalling, sub-marine mining (instruments excepted)," which latter come under section II, 'Instruments,' whereas the Vocabulary of Ordnance Stores for India, 1873, has no such section, and, with the exception of some tools for earth-boring and mining, no such stores. Neither does its section II, similarly headed 'Instruments,' contain the instruments required with the above special stores.

There was, then, one point calling then, and even now, for very serious attention, *viz.*, that even supposing the ordnance department had been, or were now, able to supply all the stores required for a complete park, yet not only was the expeditionary force sent without anything in the shape of—

- (a) pontoon train or bridge equipment,
- (b) telegraph train,

but the Bombay corps is up to the present day without such.

As regards the Bombay corps, it has been known to every General Commanding Poona Division, and to every Commander-in-Chief of the Bombay Army since 1870, that it has had not only no pontoon train, but nothing for instructional bridging practice, save some condemned pontoons (condemned in 1863) and some porter barrels.

A telegraph train has never existed in this presidency. I may mention that I obtained as commanding officer of the corps after a camp of exercise on loan from the Government Telegraph Department on my own responsibility some more instruments and telegraph cable and wire. Two sergeants having joined from England who happened to be practised telegraphists, some makeshift batteries were constructed for the purpose of instructing some of the other men.

These few men and the makeshift and borrowed *matériel* represented the whole attempt at field telegraph stores sent with the expedition.

In the committee's prefatory report to the Roorkee Equipment compilation of 1870, it is stated in paragraph 5 that "the question of field telegraphy and pontoon trains remain to complete the subject of engineer equipment in India."

It was reported to the Adjutant-General of the army at the end of 1876 that we had nothing in the way of equipment but that laid down for each company in table II, owing to the question of the other not having yet emerged from the region of experiment and committeeism. After a lapse of three years such is still the state of the case.

The great point to be aimed at even now is to secure the recognition of the fact that, as elsewhere so also in India, sapper corps require sapper equipment. This once accepted, and the tables sanctioned, their modification thereafter is a comparatively easy task.

These Roorkee tables of 1870 contained provision merely for first, second, and third class siege trains and company equipment, under three conditions, "general, hill, and light" service. No unit of equipment was laid down for a field park, which was, above all, the thing wanted for any expeditionary force for the supply of the sappers.

The siege train equipment of 1870 as abovementioned is much behind the time. It is hoped therefore that a revised equipment for India will be taken in hand and sanctioned, giving the complement for a—

field company,
field park,
pontoon troop,

depôt company,

telegraph troop,
railway company,
torpedo company,

so that sappers sent with any force in future may not have to depend upon makeshifts. Moreover, as a man does not learn the use of his own arms and legs and his drill in a day, the sooner these special stores are supplied, the sooner will the State reap the full value of the special pay allowed for its training, which cannot now, for want of the requisite materials, be carried out efficiently. I would draw, in conclusion, special attention to the letter from the Inspector-General of Ordnance, Poona, to the Commissary of Ordnance, Poona, No. 222, dated 10th January 1877, in which he points out that the only materials and plant which he will supply are the few entrenching tools of a company. A glance then at the Army Circular, War Office, 1st April 1879, page 73, which actually provides more for the rough training of the militia engineers than has been granted to the corps. It is self-evident that if a company is to be in thorough readiness for service, its equipment ought to be in first-rate order. This it cannot have if it is to be brought into use every day in training; for picks, shovels, &c., soon show signs of wear and tear.

If the arsenals were kept up to their proper supply, and a thoroughly effective siege train for use in India and elsewhere drawn out and kept in readiness, I should think that such a proceeding would meet the general requirements; but it must be thoroughly understood that for the sappers at headquarters there ought to be in addition to the above two small separate parks, each for two companies kept always in readiness. The combination of the two would be probably in excess of that sanctioned in Army Circular of 13th December 1877; but it must be fully considered that the English service would be more or less in places of a more civilized nature where plant of some kind could be obtained. The chances of Indian service would point to places where plant and tools would not be obtainable; hence some small extra provision should be made.

As so many special stores are required for the improved engineer stores, I think one of the senior officers in the ordnance should be an engineer officer.

No. 222, dated Poona, 10th January 1877.

From—LIEUT.-COL. C. CLARKE, for Inspector-General of Ordnance and Magazines, Poona,
To—The Commissary of Ordnance, Poona.

In returning the indent, dated 1st November 1876, from the Sappers and Miners, the Commissary of Ordnance, Poona, is requested to inform the officer commanding that corps, with reference to his

letter No. 1116C of 16th ultimo, that Government Resolution, Military Department, No. 3754, dated 16th September 1875, sanctions table II, engineer equipment for a company of sappers and miners, general service, only being accepted as a standard, and this department cannot, therefore, sanction anything beyond what is laid down in that table.

2. The indent should be therefore corrected, and include only the articles sanctioned as above, which will be supplied with the least possible delay.

3. It should be stated whether the demand on the indent is for the whole five companies of the corps, or those at head-quarters only. In the latter case no additional demand will be passed, if preferred by the officer commanding the company at Aden.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineer,
Southern Afghanistan Field
Force.

A very full report on this subject, showing in detail the stores supplied, the method of supplying them, the deficiencies noted, and the delay caused by inefficient arrangements for their transport from the arsenals, &c., and also such suggestions as I have to offer for the improvement in quality, alteration in description, and method of supply which should be adopted when a royal engineer field or siege park is to be put in the field, has been sent to the Quarter-Master-General in India.

Lieutenant-Colonel D. Limond,
B.E.

Partly from the arsenals, and partly from the public works stores. There was considerable delay in getting the stores for the 2nd Division, Peshawar Valley Field Force, which arose from the demands previously made by the 1st Division and the Kuram Field Force. The tools received were generally of good quality, *i.e.*, those from the arsenals; those locally manufactured decidedly indifferent.

Captain W. T. Stuart, Inter-
preter and Quartermaster, Bengal
Sappers and Miners.

The commandant had for years past been striving to get the park and trains in good and efficient order, and was well provided with nearly everything needful.

58. What was the work (in detail) performed by the ^{Bengal} ^{Madras} sappers in the late campaign, and the numbers employed?

In what way were the sappers under the various commanding engineers?

Major-General F. R. Mansell,
C.B., B.E.

The work performed by the sappers was very heavy; they were constantly employed. The works were so heavy, that large numbers of country laborers had to be used also. Some sappers were attached to divisional park.

The sappers were under the commanding engineer, precisely as other branches were under their brigadiers. Orders were issued to the commanding royal engineer, who was responsible for all being carried out. They were promulgated in royal engineer brigade orders or otherwise, as usual, through the royal engineer brigade-major. The commandant of sappers being also present, system was facilitated, he being usually made responsible for details. The commanding royal engineer exercised no interference with regimental duties and detail.

Similar system existed in the armies with which I have served, as siege of Mooltan, Delhi, Lucknow; and I cannot conceive any other system working smoothly and efficiently.

I have reason to believe that this system did not fully exist, at any rate at first, in other divisions; and the consequence was friction and misunderstanding. But I may be mistaken—certainly I had a great advantage in having been long in military command both of a corps and of a station, practically a brigade command. I consider this more convenient than the system in vogue in the home army, under which the commanding royal engineer takes up details of regimental business, which, in my opinion, should devolve on the officers who know the men and have commanded them; they should not be superseded.

Colonel H. N. D. Prendergast,
B.E., Commandant "Queen's
Own" Sappers and Miners,
Madras.

The B Company was employed in making the road from Ali Musjid to Jumrood, building *sungahs* at Ali Musjid and Lundi Kotal, destroying towers in Bazar Valley, well-sinking at Lundi Kotal, road-making and building post at Turkoman.

The E Company was employed in road-making from Jumrood to Ali Musjid, destroying towers in Bazar Valley, road-making Ali Musjid to Lundi Kotal, making posts and entrenchments at Basawal.

The K Company was employed in road-making at Lundi Kotal and from Futtchabad to Gundamuck, building fort at Jellalabad, sinking well at Lundi Kotal, building 44th Regiment memorial beyond Gundamuck, destroying towers at Futtchabad.

Each company furnished working-parties of from 80 to 100 men. The sappers were under the commanding engineers for work.

Lieutenant-Colonel J. Hills,
B.E., Commanding Bombay Sap-
pers and Miners.

Two companies of sappers, the 2nd and 5th Companies, were employed on roadwork and constructing bridges, &c., between Jacobabad and Dadur till March. They then commenced a road through the Chota Bolan of about a mile in length of difficult work, in which a good deal of blasting was done and a retaining wall of about 200 yards built. The length of road finished was about seven miles. Even at this period

reports were forwarded as to the paucity of powder, fuzes, and jumpers with the company equipment.

In April the two companies attacked the deep gorge of the Bolan Pass proper, and by dint of hard work made the road from the entrance of the pass to the Thust-hedowlal Kotal, nearly seven miles, feasible for the passage of the heavy siege train. Here again, had they not been supplemented by some of the stores of siege train, they could not have executed the works demanded.

In May sappers were chiefly employed in blasting and improving General Phayre's alternative route to Much. A small canal was also constructed of about two miles in length, and the general watering arrangements of the place carried out.

In June and July the work on General Phayre's road was continued; and in August the masonry channel was constructed to lead water from the reservoir to the watering troughs in the Bolan.

The remainder of the men were employed in continuing General Phayre's alternative route.

A detachment taken from the command of the sapper officers and placed under an officer in the public works department was employed on a road between Dogdan and Much.

On the 27th August the sappers were marched to Dhusta redoubt to commence a road over the Bolan Kotal, which should be about the end of September, by which time the sappers, besides the canal and alternative route of General Phayre, will have completed an excellent road from Kista to Darwaza. There are, however, now daily 90 sick out of the force. This is partly attributable to the fact that a great number of the men in the company had been very ill in Cyprus, but I believe also to the fact of the heavy continuous strain of work thrown on the men, who were working on rations of not sufficiently nourishing power to repair the excessive waste of tissue; and I trust this matter may receive consideration.

The sappers were under the command of an officer royal engineers, Lieutenant Whiteford. He received orders from the general direct. The reason of this was that with the reserve division no commanding engineer was appointed, and hence no one to superintend the engineering work—a very grave error. The commanding royal engineer should be *en rapport* with the general, and issue his orders to and through the officer commanding the sappers and miners when he wishes work done through their agency. This is a very simple matter, and ought to cause no more friction or trouble than a brigadier working with the regiments under his command.

The arrangements as regards royal engineer and sappers and miners are in India most unsatisfactory. The only way to remedy this is to adopt as far as possible the home system, and appoint to every large body of troops a royal engineer officer of high standing as commanding royal engineer, who is responsible to the general commanding for the discipline of, and work done by, the royal engineers and sappers and miners under his command. Under the present system, a royal engineer is appointed with two or three field engineers and a miserably small collection of assistant field engineers.

There is no bond of union between them and the sappers, as the latter are quite separate; and the consequence is that the quartermaster general of the force practically becomes the commanding royal engineer and adviser of the general in engineering matters. It need hardly be said that the quartermaster general has ample work of his own to do; and thus imposing upon him other duties of which he has generally but a superficial knowledge is most prejudicial to the interests of the service.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineer,
Southern Afghanistan Field
Force.

(b) In answering this question, I think I cannot do better than enclose a letter addressed to the Assistant Adjutant-General, Southern Afghanistan Field Force, upon this subject. I am enabled by the kindness of Lieutenant-General Sir Donald Stewart to attach a copy of his forwarding minute. I may add that I think it would be extremely foolish of any commanding royal engineer to interfere with the interior economy of the sapper companies under his command; and I do not imagine that any temptation to do so would ever exist. His relation to them should be somewhat that of a brigadier to the regiments of his brigade—a power of inspection, and the right of course of ordering such working-parties as may be necessary for the execution of engineering works. I also think that all applications for regimental courts-martial should be made to him, as they are at home, although all other commanding officer's powers of punishment, &c., may be held by the officer commanding the detachment. This is particularly desirable in my opinion, as the British non-commissioned officers attached to the different companies sappers and miners are royal engineer soldiers belonging to the 41st Company, Royal Engineers.

Confidential.
Sappers and Miners.

Dated Kandahar, 27th March 1879.

From—LIEUT.-COL. W. HICHENS, Comdg. Royal Engr., Southern Afghanistan Field Force,
To—The Assistant Adjutant-General, Southern Afghanistan Field Force.

I have the honor to request that you will bring to the notice of the lieutenant-general commanding the very unsatisfactory state of the relations at present existing between the commanding royal engineer and the sapper companies.

2. I had noticed for some time that whenever I gave any orders with regard to the sappers to * * (the senior officer with the sappers and miners attached to this division), although there was no overt disobedience, still his manner was always as though he obeyed under protest, and my orders had frequently to be repeated.

3. Now * * * is an excellent officer, both as an engineer and a commandant of a company; and I was willing to believe that I might have misconstrued his manner, but at last I was obliged to speak to him on the subject; and I said—

"It seems to me as if you thought I had no right to give any orders at all as regards the sappers."—which, to my astonishment, he acknowledged to be his belief, founded upon his teaching at the head-quarters sappers and miners at Roorkee, and upon his interpretation of the Bengal Army Regulations.

4. I requested him to put upon paper his view with regard to the constitution and position of a company of sappers and miners, especially with reference to its relation in the field to the royal engineers.

5. His statement I annex with my own marginal notes, in which I show my own opinion as to what those relations should be, and which are almost identical with those which now exist in the British army between the companies royal engineers, formerly called sappers and miners, and the officers of the corps. These views do not appear to me to be in any way contrary to the regulations of the Bengal army; but in those regulations I am unable to find any paragraph which defines, or even hints at, the duties of royal engineers in the field; so having been appointed Commanding Royal Engineer to the Field Force, Southern Afghanistan, I conclude that my position and functions are those laid down in the Queen's Regulations, paragraph 49, section 5, from which it appears that I am "responsible for the military discipline of the officers and men under my command, * * * * * for the efficient direction of engineering operations at sieges, * * * * * and for mining, bridging, making surveys," &c., &c.

6. Now, I am at a loss to understand how I can be held responsible for the efficient direction of these engineering operations if my authority is so curtailed, that I am unable to inspect or control the instruments by which they are to be carried on—the companies of the sappers and miners.

7. I am sanguine that I shall obtain the support of the lieutenant-general for the views I have expressed; and indeed since he was so good as to issue a field force order putting the sappers under my direct command, all my orders have been cheerfully and punctually obeyed. But I think it is to be deplored that the relations of the Bengal sappers and miners to the commanding royal engineer in the field should be so ill-defined in the Bengal Army Regulations, that a young royal engineer officer in command of sappers should be able to believe that he is only acting up to the spirit of those regulations when resisting the authority of the commanding royal engineers.

8. I wish to record my opinion that * * * was actuated by no feeling of insubordination in his conduct towards me, but by an honest, though I believe mistaken, view of his duty to the corps of sappers and miners, and a spirit of loyalty to its commandant.

Memorandum on the relations between the Commanding Royal Engineer and the Companies Sappers and Miners.

Remarks by Lieutenant-Colonel W. Hitchens, Commanding Royal Engineer.

Memorandum by * * * Commanding detachment sappers and miners.

2. This is also the case with the command of royal engineer companies, formerly called sappers and miners. At home in large stations where there are several companies a special officer is appointed to the command by the Field Marshal Commanding-in-Chief; but he and all his companies are under the commanding royal engineer of the division.

If the officer commanding companies is absent, the command devolves upon the senior officer appointed to the companies, although there may be officers, royal engineers, senior to him at the station. But under all circumstances the senior officer, royal engineer, in the division is commanding royal engineer; and as such the officer commanding companies and the companies are under his orders.

3. In peace time, when sent to any out-station, as no officer, royal engineers, is to be found in India holding regimental military employ, the command of necessity is in the hands of the senior officer with the company or companies.

On service the royal engineer officers and the sappers are appointed to a division under the command of the commanding royal engineers of that division.

4. No doubt, and also to the commanding royal engineers, and through him to the general officer in command.

The corps of Bengal sappers and miners is constituted as all other Native corps or regiments, the only difference being that the officers are now selected from the royal engineers instead of from the Bengal staff corps; the sepoy are recruited from the same sources as for other Native regiments, and are not required to possess any particular trade qualifications.

2. Only those royal engineer officers who have been appointed by G. G. O. hold command or appointment in the corps. The fact of an officer being a royal engineer does not necessarily entitle him to any command or appointment in the corps. In this the constitution is similar to the rest of the Native army. All Bengal staff corps officers may be appointed to command any regiment by G. G. O.; but the fact of an officer belonging to the Bengal staff corps does not entitle him to an appointment or command in any particular regiment.

3. On service the companies sappers and miners are detached from the head-quarters of the regiment, and are attached to a division, brigade or battalion under the command of the staff or doing-duty officer. At present the 4th company is under the command of a doing-duty officer, the 10th under the superintendent park and train, and the 1st under the quartermaster (Bengal staff corps).

4. These officers are at all times responsible to the commandant of the corps for the state of the companies under their charge, and certain monthly returns are consequently forwarded to him, showing the distribution and employment of companies, and the punishments awarded. These officers when on detachment or service are immediately under the orders of the officer of the brigade or battalion to which they are attached, in a manner exactly similar to that of all other Native corps.

5. There is no *raison d'être* for companies of sappers and miners except as engineer troops; and as such they are clearly under the orders of the commanding royal engineer.

The view as here expressed would make it necessary for the commanding royal engineer to apply to the general in command, who would issue an order, through the assistant adjutant-general, for the officer commanding the detachment sappers and miners to move a couple of men whom the commanding royal engineer wanted to make a loophole.

Also in regard to working parties just as with Native regiments. Demands for working parties are made to the officer commanding the detachment, through the officer commanding the division, brigade or battalion to which the sapper companies are attached.

W. HICHENS, *Lieut.-Col.*,
Commanding Royal Engineer.

Kandahar, 24th September 1879.

Endorsed by LIEUT.-GENERAL D. M. STEWART, Commanding Field Force, Southern Afghanistan.

Forwarded to the Adjutant-General in India for the orders of His Excellency the Commander-in-Chief.

For all purposes of business, discipline, and command, the sapper companies attached to this force have been placed under the commanding engineer precisely as batteries of artillery are for similar purposes placed under the command of the senior officer of that arm serving with the force.

The commanding engineer is provided with a staff officer for the express purpose of enabling him to exercise the duties of his office in accordance with the general regulations of the army; and it is clearly for the interest of the public service that sapper companies should be always under the control of the commanding engineer on field service.

Lieutenant-Colonel D. Limond,
R.S.

The B and E companies of Madras sappers served throughout with the 2nd Division, Peshawar Valley Field Force; they were employed for about a month on the road near Ali Musjid, principally doing blasting. The K company was also employed on the road from Lundi Kotal to Lundi Khana. The masons of the B company put in the foundations of Fort Bluff at Ali Musjid, and subsequently after transfer to Basawal assisted in the entrenchment of the camp at that place, and in the erection of shelter over the men's tents. The E company constructed the post at Torkammar, between Lundi Khana and Haft Chah; they also blew up towers at Bagar. The 2nd and 3rd companies of Bengal sappers aided in the erection of iron-framed barracks at Lundi Kotal, in road-making, also in clearing the site for Fort Tytler at Lundi Khana.

The officer commanding the Madras sappers was a field engineer, and at my request took general charge of works from Grides to Jellalabad. The rest of the officers attached to the Madras sappers were assistant field engineers, and in that capacity served under my orders. The companies were in communication with the officer commanding Madras sappers and miners employed where their services appeared most required.

Captain W. North, R.S.

The head-quarters and 1st, 2nd, 3rd, 6th and 8th companies with Khyber column.

Work with advanced guard at action of Ali Musjid and advance through the Khyber. Employed throughout in rendering the very bad road passable for artillery and dragging the guns, when the horses and gunners could not do it over the bad places.

At Dakka, employed on road-making, strengthening the fort and defences, improving communications across river.

At Jellalabad, roads, bridge across river, general defences.

At Girdi Kus, employed for two months at far the hardest piece of road-making done anywhere in the campaign.

At Gundamak, road-making, and on the fort.

Hard telegraph work was also continually being done during the campaign.

Companies or detachments invariably accompanied all the many expeditions which took place against hostile tribes, and destroyed a large number of towers, &c., in the presence of the enemy.

The sappers with the other columns were similarly employed; but as they are still in the field, detailed reports have not been yet received.

The number of combatants employed in Afghanistan was over 1,300.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

Generally the sappers work constantly and well. Details must be obtained from royal engineer brigade records.

54. Do you consider that the present uniform and equipment of the Native sapper meet all requirements?

Major-General F. R. Maunsell, C.B., R.E.

Yes; the speciality of the arm, namely, a shortened sword knife in a leather scabbard, is, I consider, a very great improvement. I had a battle with prejudice (I mean amongst regimental officers) in the matter and a stout opposition; but every officer whose opinion seems to me worth anything has now seen the advantage of it.

It might be improved further by having the weapon made on purpose, instead of being laboriously ground or cut down in arsenals as they are now.

Major-General A. Fraser, R.E.

I am not certain as to present arrangements for clothing. But the sappers should have a proper working dress of khaki, which should be worn in the field; in cantonments they should have their regular uniform, like the rest of the army. The sapper equipment should be only sufficient for their ordinary drill and field practice; all other stores, tools, and materials necessary to supplement the engineer park, &c., should be in time of peace kept in the arsenals and indented for as required.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

In most respects they are very good. The black cotton trousers lately introduced are not, however, good.

It is necessary that by some means a sapper shall be enabled to carry his arms, accoutrements, working tools, great-coat, blanket, and three days' provisions on an emergency—for instance, on landing at Gallipoli or the coast of China.

Boots are always a difficulty. Government should supply boots of the same quality as the British ammunition boot, but made not of the English shape. They should be broad at the toes, to fit the undeformed foot of the Indian soldier.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

The present sapper dress and equipment do not meet the requirements of field service.

First, as regards dress,—the forage cap, though neat and smart-looking in camp and in undress, is unsuitable in marching or during exercise without the strap, the use of which was ordered to be discontinued, and the resumption of which might be objected to on account of caste-prejudice.

Over the forage cap the head-covering, a small narrow band of cloth, is too small to afford sufficient protection from the sun in the day or sufficient warmth in the cold. A very slight alteration in its make would still preserve it as a small smart undress, and permit the use of a turban over it in marching order or on service. The coat is either too tight or not tight enough in the body. The sleeves should be left slit open under the armpits for ease of work and for ventilation. The English loose serge coat would be more suitable than the present tunic given them. Trousers are furnished. They should be exchanged for knickerbockers. There is a double fault in the trousers. First, as a sapper has frequently to work for a time in water, in marshes, near rivers, &c., it is a matter of no small importance to him to be able quickly to divest himself of all clothing below the knee. This is easily attainable by a knickerboker, not so by trousers. Secondly, its looseness affords space for the peculiar underclothing worn by the Natives. I am well aware, I may here mention, that the loose knickerbockers worn by the French chasseurs in the Italian campaign of 1859-60 were found to be failures, causing severe excoriation, &c., in fork of the wearer from their looseness and want of support to those parts in hot dusty days when the army had to march through the plains of Italy. The evil was considered of so serious a nature, and the percentage of men incapacitated so great, that it was contemplated to give them up altogether and return either to the tight English or Austrian trousers, or exchange them for the Zouave, which is only an enlarged sack. The wearing of a *langootie* or *dhotie* obviates this cause of probable trouble in the Native costume; and hence they may be suitably instituted in the Native army.

Below the knickerbocker, if possible, I should prefer to see the up-country *puttee* used, folded well over the calf, and also if possible over the feet; the folding commencing at the toe and working up to the knee. But if this folding from the toe is too difficult or too expensive, each Native ought to be taught the use of a small square piece of cloth to be used folded over the feet (similar in manner to that employed by so many of the continental people,—the Prussian, Russian, and other peasantry) as the substitute for stockings, which latter are in my opinion too expensive an article, and one too easily and speedily worn out to become practically available to the sepoy's length of purse. A damaged or worn-out stocking is worse than nothing. The piece of cloth can have its position changed from day to day, so that if showing signs of wear on one spot, a fresh portion of surface may be substituted.

A short gaiter, like that worn by a Highland regiment, is necessary to keep the sand, grit, and small stones out of the boot of the sapper. This gaiter is all the more necessary, as the sapper has so much work on riverbeds and channels.

The boot is a very important problem, which to a certain extent has been solved by the Native himself; for, in spite of the bad shape and ill-fit of European boots, the Native sapper invariably buys the European soldier's boots whenever his purse can afford it. I would, however, represent that the foot of a Native is of quite a different shape. It is narrow in the heel, long and narrow in the instep, and suddenly spreads out like a palm leaf at the toes. His ankle is moreover very much sligher; but his foot generally is larger than that of the European, and the shape is so utterly different, that specially formed boots should be made on suitable lasts. These boots should form an item in his clothing, for which allowance, as is done for coat, &c., should be formally made and sanctioned; as on this his marching and lasting power depends.

As a sapper has on service not only to get over his daily march like other line regiments, but has often to work extra hours in clearing the roads, &c., it becomes an item of the greatest advantage to prevent him becoming unnecessarily taxed and his strength worn out. To quote an apposite axiom, 7 lbs. extra weight on the best horse in racing terms means "a distance." Hence, as a general rule, his intrenching tools and implements should be carried for him, and he should be left as free from extra burdens as is possible. At the same time it becomes often absolutely necessary for expeditious work that he should be able to carry in need his intrenching tools himself in order to set to work against time, for such purpose for instance as destroying bridges, throwing up banks, &c.

The argument of the above resolves itself into the result that his equipment should be of such a nature as to admit either the carriage of his general clothes, &c., or of his intrenching tools according to the nature of the work.

The new valise equipment just issued is not suitable for such a purpose; and it is not possible, as far as I can see, to place the intrenching tool on the valise equipment. This latter has far too many buckles and straps to suit the Native soldier, and is far too complicated with it. The sapper may carry his *personnel*, but cannot carry his tool with him.

The only suitable equipment for a sapper is the "Oliver," which permits of the carriage of either the sapper's personal kit or of his intrenching tool as is demanded. Moreover, the strain is taken off his chest and brought on to the neck, by which means he can breathe freely and move easily.

As, however, the Native is not physically the equal of a European, the whole set of intrenching tools should be made shorter and lighter. A very little difference in weight tells in a long continuous march, much more so than the inexperienced imagine.

Finally, the sapper to keep himself in decent order is forced to buy for himself a working suit of clothes. This is undoubtedly a hardship, which tells very heavily on those (for instance the torpedo and poutoon companies) who have to work on in the neighbourhood of water, especially the sea. This working dress should be supplied to the sapper at least biennially, and some small item of clothing, if considered necessary on the score of economy, may be withdrawn. I believe some sort of custom as is proposed above is the custom in Madras.

To recapitulate. The sapper's *personnel* and equipment is not what it should be; but of all requirements the boot of a suitable shape and of English make and the Oliver equipment are the two grand essentials, and his service cooking-pots should be specially designed to meet the curtailment of baggage. At the same time I cannot help feeling that the present regulations cut down the amount of baggage to too low a scale. It was certainly curiously high when the late Sir H. Havelock, as aide-de-camp, had 19 servants and 9 camels as his transport; but we err too greatly on the other side; for if I may be allowed to express an opinion, one-third more baggage and half the number of doolie-bearers sent would have been more practical and more healthy in its results.

The cooking-pots might be made on a very small scale to combine the improvements instituted by Captain Warren in his patent.

Finally, to all sappers on a campaign, as they have to do extra work, and no engine can work without fuel, should be granted meat to those who eat it, or proportionate milk or ghee—in fact, their rations should be assimilated to that of the European ration. My experience is that sappers fed according to Native and not European rations break down after a strain of five or six months; in fact, as I regret to hear, the two companies of the Bombay sappers and miners who have been on long protracted work in the Bolan suffered from this cause.

A tot of rum, tea or coffee should also form a portion of their daily ration.

Captain W. North, R.E.

Yes; but I presume that the new accoutrements will now be granted, and they will be better than the present ones.

Captain W. H. Pierson, R.E.

The Native sapper is still armed with a short rifle, probably a survival of the theory that he should sling his musket while he digs. His duties lie chiefly with the advanced and rear guards, where on occasions every fighting man is of great value; and he should consequently be armed with at least as effective a rifle as any other branch of the service, and "be able at all times, when not employed executing the work for which he has special training, to act as an infantry soldier." These remarks apply equally to pioneer regiments. The disadvantage of carrying a heavier rifle than at present cannot compare with the increase in efficiency. The English sapper is now armed with the same rifle as the line.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

I do not think that the pipe-clayed accoutrements are suitable, and he should be fitted up in the best possible manner. His arms are light, handy, and useful. The royal artillery breech-loading carbine with modified sword bayonet is carried by the Native sappers. The cavalry swords issued to the British non-commissioned officers are too heavy; a lighter sword, royal artillery or royal engineer staff sergeant's sword, would be better and quite as effective. The men should be taught the sword exercise.

55. What are the daily duties of the officers who command the 41st, 42nd, and 43rd companies, Royal Engineers?

In Bengal he is apparently an attaché officer of Royal Engineers, and is styled "commandant," in Madras "2nd-in-command" (Adjutant), and in Bombay "Captain" (Adjutant).

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

He is the adjutant of the "Queen's Own" Sappers and Miners, and performs all the duties of the captain of a company, except the drill. The men drill with the companies of sappers to which they are attached.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

The officer in command of the 43rd company is by the Bombay Army Regulations an officer of royal engineer attached to the corps of sappers and miners. For some time the adjutant (who must be a royal engineer officer) commanded the 43rd company; but as this was found to be a most unsatisfactory arrangement, another royal engineer is now appointed to the command.

This officer has the usual duties of an officer commanding a company, royal engineers, to perform. He is responsible for the pay, clothing, and interior economy of his company; he is invariably employed on field-works, instructional schools, &c., in addition, like every other royal engineer officer with the corps.

Captain W. North, R.E.

His duties are entirely of an office nature, and are very considerable.

Though hardly any men are present with the 41st company, 122 belong to it, and he has to keep up the records of all and the correspondence connected with them.

He is not styled "commandant."

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

There is a great deal of paper work in this command, it being a skeleton company. He is simply one of the attached royal engineer officers.

56. In Bengal there are apparently 9 non-commissioned officers and 3 privates; in Madras 9 non-commissioned officers, 1 bugler, and 6 privates; and in Bombay 4 non-commissioned officers, 1 bugler, and 12 privates. How many detached non-commissioned officers and men are there on the rolls of each company? What are the duties of the non-commissioned officers?

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

The number varies according to circumstances; many were detached during the famine. There are always some with garrison instructors. Some are on the unattached list in the survey and public works departments.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

There is apparently some misunderstanding concerning this and the following question (No. 57). They appear to have been taken from "Jameson's Code."*

The present organization is as follows:—

The 43rd company has a permanent strength of one captain, 1 company sergeant-major, with a fluctuating strength of sergeants, 1st and 2nd corporals, and sappers according to the requirements of the service.

The men are employed—

(a) With the sappers and miners (Native companies).

(b) On the public works department as overseers, &c.

(c) In the corps workshops at the head-quarters of the corps. They in addition take (except 6) all the usual duties of a royal engineer company.

Captain W. North, R.E.

At present there are actually with the 41st company, royal engineers, thirteen non-commissioned officers, and detached 109 non-commissioned officers.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

There are, or should be, 60 British non-commissioned officers for the 10 companies of sappers, and 4 staff sergeants with head-quarters. I have not data by me to answer farther. Their duties consist of superintending. Some assist in the park at their trades, others in offices and schools of instruction. All seem fully and constantly employed.

57. What are the " supernumerary non-commissioned officers and men " of the 43rd company in the Bombay presidency?

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

It is not understood what is meant by " supernumerary non-commissioned officers and men "; there are none with the 43rd company, royal engineers.

53. Who is the head of the royal engineers in India?

Lieutenant-General C. W. Hutchinson, R.E., Inspector-General of Military Works.

Previous to 1854 the senior officer of engineers in the presidency held the appointment of chief engineer of the army, with a seat at the Military Board, and was the recognized head of the regiment.

In 1854 the Military Board was abolished, and the present Public Works Department was initiated.

With the abolition of the Military Board the function of the chief engineer of the army as a member of that Board ceased; but it was ordered that the senior officer of engineers for the time being should hold the title of "chief engineer of the army," whether he happened to be the (public works department) chief engineer of the Punjab, Burma, Central Provinces, or wherever he might be employed. His office and records, however, were established at the head-quarters of the sappers and miners.

After a few years, however, the title was formally abolished, and the corps of Bengal engineers ceased to have even a nominal head.

There is now no head of the royal engineers in India; and although nine battalions of the corps, numbering over 400 officers, are serving in India, the very semblance of military organization has been discarded.

My opinions on the necessity of remedying this want of military organization, and of appointing a recognized head to the regiment in India (Bengal presidency), are given in my answer to question 66.

Major-General F. R. Maunsell, C.B., R.E.

There has never been either an officially acknowledged head or a staff officer. The staff duties, as preparation of returns, some of the records of service, &c., are devolved on the commandant of sappers, and officers refer to him often for information, but he has no official position or right to answer them. Formerly there was an official commandant and an adjutant abolished in 1853, when the office papers were sent to sapper head-quarters.

Major-General A. Fraser, R.E.

I know of no head of the royal engineers in India other than the Commander-in-Chief.

Colonel J. G. Medley, R.E., Consulting Engineer to the Government of India, Railway Department.

There is no head any more than there is to the Bengal staff corps. In some respects this is a serious disadvantage, as the interests of the corps are not properly represented at army head-quarters in India. In selecting officers for field service, for instance, there is no one to advise the Commander-in-Chief in this matter, and the general impression is that the selection is made very much at haphazard, either from officers who press their wish to go, or from those who can best be spared from their civil duties.

The appointment of an assistant adjutant-general at head-quarters, if he were a royal engineer officer of sufficient rank and influence, which has often been proposed, would, I think, be very useful in this and other ways; and (59) his office should undoubtedly be the depository of all official records, plans, journals, &c., connected with military engineering operations in India. It may be seen how necessary such an office is when I state that there has never been any official account published of the siege operations of Delhi or Lucknow, or indeed, so far as I am aware, of any of the Indian campaigns. The experience therein gained is thus simply lost to the corps at large, and, on the occurrence of the next campaign, almost everything has to be improvised *de novo*.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

There is no head, but papers written by me are sometimes referred to Captain Blood or any officer who may be commanding the Bengal sappers. Matters of dress for royal engineers seem also to be referred to that officer.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

I suppose the senior engineer officer. It used to be so in this presidency before the amalgamation, but there is no authoritative representative now that I am aware of.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

The senior officer of the corps present in India. One of the colonels commandant ought properly to fill this post, and to act as assistant adjutant-general of engineers with the Commander-in-Chief.

Lieutenant-Colonel A. M. Lang, R.E.

There is now no recognized head of the royal engineers in India, although 9 of the 17 battalions of officers of the corps serve in India.

As long as there are three Commanders-in-Chief in India, the command of the royal engineer officers serving in Bengal, Madras, and Bombay could not perhaps be conveniently vested in one officer. But for all parts of India, but the Madras and Bombay presidencies, the Inspector-General of Military Works (under the Supreme Government of India) should be the head of the corps.

If the posts of Commander-in-Chief in Madras and Bombay be abolished, the whole corps should be under the command of the Inspector-General of Military Works, who would then require one or more deputies to assist him.

Lieutenant-Colonel J. Hills,
B.E., Commanding Bombay Sappers and Miners.

There is no head of the royal engineers in India, and it is chiefly to this, and to the fact that there has not been any representative officer of any sort at army head-quarters in any of the presidencies (the artillery have a deputy adjutant-general and an assistant deputy adjutant-general in Bengal and another in Madras), that so many anomalies and deficiencies have remained for so many years unadjusted.

For instance, in October 1870 the new organization of the Bombay corps of sappers and miners was issued in orders, but no steps were taken to carry out these orders entirely.

In this G. G. O. it expressly stated that all the officers were to be royal engineer officers, that there were to be five on staff and five company officers; these latter to be captains of royal engineers: ten in all. This complement has not been obtained, and no steps taken to obtain or enforce the services of royal engineer officers: so much the opposite, that we find in November 1871 another G. G. O. from Secretary, Public Works Department, No. 1235-51E.-G.,* published, in which by orders of the Governor General in Council the number of royal engineer officers to be permitted to remain on military duties is limited to three only; and on the strength of this order the royal engineer establishment of officers with the sappers (only five at the time) was further reduced to three (myself and two others), and this against the wish of the two officers taken away, as they would have from choice remained with the sappers and miners. This order has never been cancelled, and may be applied any day.

Such a state of affairs could never have existed had any officer of the royal engineers been attached to head-quarters, through whom any business had been transacted or correspondence passed, nor do I believe could the late G. G. O., July 1879, have been issued depriving the officer commanding royal engineers of the services of the sappers and miners (the representative royal engineers), and placing them under the more immediate control of the officer commanding sappers and miners.

I would point out that in no other corps or regiment is there any interference or direct issuing of orders to regimental or junior officers. For all batteries of artillery orders are issued through the officer commanding artillery; and if such is recognized to be proper for them, it is all the more absolutely necessary for the still more scientific branch of the engineers. The commanding engineer's position and duties, if properly executed and not curtailed, are of very grave importance, as he is the adviser of the general in all engineering matters, &c., while the artillery are generally only his executors in action; and I cannot deprecate too earnestly the lowering of the position of the officer commanding royal engineers and the withdrawal from his direction and control of the sappers and miners. Unhappily so seldom is a commanding royal engineer attached to any division, and so few generals have any opportunity of ascertaining the advantage of having such an officer on their staff, or being acquainted with the duties which devolve on him, that it is not surprising, since there is no officer at head-quarters to explain and adjust matters, that the present extraordinary state of matters has arisen.

There was in Bombay up to the amalgamation of the Queen's and East India Company's forces a commanding officer engineer in whose office records were kept, and through whom references were made on engineering matters to Government; a small office was attached to him.

This system was abolished in 1861, since when the corps has been like a vessel without a rudder, drifting all over the sea, no records kept, no plans drawn out, but all things in a state of chaos or rather annihilation.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field
Force.

There is no head to the royal engineers in India. I may mention that when I returned to this country after many years' absence in England and the Colonies, I could discover no officer to whom I was to report. There was no royal engineer officer in the Bengal presidency in military employ, except those specially attached to the sappers; and when I reported myself to the Adjutant-General, and asked for employment as a soldier under the Commander-in-Chief, the request was looked upon as so extraordinary, that my application was referred to the Military Member of Council; and I was sent to general duty, because no military employment could be found for an engineer officer of my rank. I would urge upon the Commission that, if it be thought desirable that any officers of the royal engineers be retained in this country, now that the old Bengal engineers, who seem to have acquiesced in the present (to my mind deplorable) position, are dying out, and their places are being taken by officers on the imperial list, this exclusion from military employment becomes a very serious question; and the very men who, as military engineers, it would be most desirable to have in India will refuse to come. I have served with the royal engineers for many years in England and elsewhere, and know how strong their feeling is on this matter.

Lieutenant-Colonel D. Limond,
B.E.

There is none. There should certainly be a deputy adjutant-general of royal engineers in India.

Lieutenant-Colonel W. H. Durton, B.E.

I am unable to say who is the head of our corps in India. The corps is so minutely divided, either by presidencies, provinces, or by branches of public works department, that there are, I should think, some 13 or 14 different promoting authorities, possibly all promoting on

different principles. As an illustration showing how singularly my corps is divided up for the purposes of promotion, I and four other royal engineer officers are engaged in the same office on the same work; yet there are three different heads of departments or chiefs to whom we look for advancement. Is it likely we get the same measure of advancement meted out to all alike?

Captain W. North, R.E.

I presume the senior officer on military duty.

The records of engineer work in the field, sieges, &c., connected with the Bengal army are kept in the office of the Commandant, Bengal Sappers and Miners.

I suppose the public works department looks after the forts.

Captain J. Dundas, R.E.

The royal engineers have no head in India. They ought to have a deputy adjutant-general at army head-quarters.

Captain W. H. Pierson, R.E.

There is no head of the royal engineers in India.

The resulting absence of system and control is unfair both to the State and to the corps.

The disposal of royal engineer officers sent out to India is very much a matter of chance. There is no one to see that each officer is employed in the manner for which he is best qualified, or to keep a record of his services and character while in India. I have heard it stated at the Horse Guards that the want of such a record of the Indian services of officers is felt as a serious inconvenience when they return to England. The remedy is to recognize the senior officer not in purely civil employ as the commandant of the corps in India (this would probably be the Inspector-General of Military Works), and to appoint a deputy adjutant-general for royal engineers in India, following the English precedent. (In England there are only 3 battalions as against 9 in India.) Economy being an object, the latter appointment might be doubled with that of deputy inspector-general of fortifications (see reply to question No. 66) without increase of pay. I believe that these measures would be of great value in keeping up a healthy military tone in the corps of royal engineers serving in India.

Captain H. H. Cole, R.E., Executive Engineer.

There is no head of the royal engineers in the same sense that in England we have the Duke of Cambridge, the Inspector General of Fortifications, and Deputy Adjutant-General, Royal Engineers.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

There is none; the commandant of royal engineers was abolished some years ago, although his office, with one clerk, exists at head-quarters, sapper and miners: *vide* G. O. No. 1004 of 10th October 1854.

59. What is the course of procedure when (a) technical engineer questions have to be considered, and what departments deal with them?

(b) Similarly, for military questions connected with barracks and fortifications, and for (c) questions relating to *personnel* of the engineers or the sappers and miners?

In what office are records of engineer work in the field, sieges, &c., and plans of forts retained?

Lieutenant-General C. W. Hutchinson, R.E., Inspector-General of Military Works.

Previous to 1872 all barracks and fortifications throughout India were in the charge of the Local Governments or Administrations, within the limits of whose jurisdiction they were situated.

Circulars and standard plans were from time to time issued by the Supreme Government fixing either broad principles or minor details in connection with barracks and cantonments; but there was no real centralization of authority or direction in regard to these classes of works.

The failure of certain new works, the general disrepair of military buildings, and the unsatisfactory mode of meeting the requirements of the army and of its superior officers, led in 1871 to the separation of military from civil public works throughout the Bengal presidency, and the centralization of direction and authority in regard to public works connected with the requirements of the army, in the hands of an inspector-general at the head of a special staff of officers.

It is therefore through the agency of this military works branch of the public works department that questions connected with barracks and fortifications are considered in this presidency.

The first task undertaken by the newly-organized military works branch was to collect and codify all the circulars and orders which (as above mentioned) had from time to time been issued, and to treat similarly all standard plans. On the basis of these orders, circulars, plans, &c. (revised where necessary), a complete and comprehensive scheme was elaborated, defining, for the first time with precision and order, the scale and nature of accommodation for each arm of the service, modified according to site, the strength and localities of the several garrisons, the authorized amount and form of barrack furniture, the relative duties of various officers and departments and the modes of procedure.

During the past eight years improvements, revisions, and additions, where found to be necessary, have been introduced into this scheme; but, with these modifications, it still remains the basis of all proposals for the works annually carried out for the accommodation and service of the troops serving under His Excellency the Commander-in-Chief, and thus precision, method, and uniformity are insured in this branch of public business.

At every military cantonment a committee is assembled once a year to consider the most pressing requirements in regard to military public works. Their report, after criticism by the general commanding the division, and subsequently by the Commander-in-Chief, is transmitted to the Government of India in the Military Department, and the Inspector-general of military works is supplied by the quarter-master-general with a list of requirements at all stations as finally approved by the Commander-in-Chief. The Inspector-general of military works then combining these requirements with those communicated by the commissary general and the Inspector-general of ordnance, and comparing them with the authorized scale of the scheme above described, and with the allotment assigned by the Supreme Government for the coming year, prepares a budget comprising such of the most urgent of these requirements as are in accordance with the authorized scale, and approved by the Commander-in-Chief, and which can be executed within the limits of the budget grant.

For the proper maintenance and repair of all military buildings, roads, &c., and for the execution of unforeseen minor works, a certain allotment from the budget grant is set apart.

This is the system now in force in this presidency; and with its centralization of authority, and its basis on one complete comprehensive scheme, it ensures uniformity of design and work, and steady methodical advance towards the completion of what have been decided to be the eventual requirements of the army in regard to accommodation.

This system is, in my experience, well suited for the object in view; and I would deprecate any violent changes in it; and especially any reversion to the former arrangements which gave over the public works requirements of the army to be amalgamated with the civil public works of the several Local Governments and Administrations.

Any modifications of system and procedure should be in the direction of a closer identification of the agency for carrying out military public works with the army, and the more distinctly military departments of the Government.

This would be facilitated by the elimination of the civil element from its establishments, the absolute control of the annual allotment for military public works by the Commander-in-Chief of the army, in consultation with his superior staff officers, and the closer connection between the Inspector-general of military works and his staff of military officers with the Commander-in-Chief, the general commanding division, and officers commanding military stations.

In regard to fortifications, it is only within the last two years that attention has been strongly directed to the question of re-arming and improving existing forts, and providing new works where most required. Hitherto their maintenance has been under the same arrangement as that of barracks and other buildings, but lately all questions in reference to this class of works have been referred to the Defence Committee, whose members alone have the necessary leisure and opportunities for what is now more than ever a special department of the science of the soldier and engineer.

In my answers to questions 65 and 66 this subject will be more fully discussed.

As explained in my answer to question 58, there is no head to the corps of royal engineers in India, and there is no semblance even of military organization among the officers serving in this country.

While the artillery in India has always had a permanent staff at head-quarters to look after their interests, and has thus been maintained in an efficient state, the royal engineers have had no official representative either at head-quarters or anywhere else; and their military status has undergone the most complete degradation in consequence.

At the present moment if any royal engineer officer wishes to refer for the orders of Government any question outside his interests or duties in the department in which he is serving, such as questions of regimental promotion or duty, or of a personal nature, his reference is forwarded to the Adjutant-General's office, where there is no officer of his own corps, or specially interested in, or conversant with, the regulations, privileges, duties, &c., peculiar to royal engineers.

This evil could be remedied at a trifling or at no expense, if the plan be adopted of appointing the Inspector-general of military works the recognized head of the corps in India (Bengal), and assigning to one of his superintending engineers the duties of deputy adjutant-general, as will be more fully discussed in my answers to question 66.

Major-General F. R. Maunsell,
C.B., R.E.

(a) No rule exists that I know of. I think the Commander-in-Chief obtains through his adjutant-general the necessary information, such officers as are thought best qualified being referred to. A former Commander-in-Chief mentioned to me the difficulty he had in this matter; he generally referred, he said, to the Inspector-general of royal artillery, and he said the want of an engineer on his staff was anomalous and awkward.

(b) I understand a defence committee exist for this object.

(c) Questions regarding sappers are often, though not invariably, or necessarily, referred to their commandant.

Scientific questions of miscellaneous description are often referred to the commandant of sappers. As a rule, he has better means of answering such, and indeed questions concerning detail of engineer organization than any one else.

The records of many of these are kept in the commandant of sappers' office; the royal engineer office looked to by the clerk who compiles the returns of the royal engineers in Bengal, but the system is not definitely arranged.

Major-General A. Fraser, R.E.

Where technical military engineer questions have to be considered, the Commander-in-Chief issues the orders.

Where military questions connected with barracks, fortifications, or the *personnel* of the engineer corps (except in purely irrigation duties) are concerned, the Public Works Department issues the orders after consultation with the Military Department.

Records of engineering work in the field, sieges, &c., would probably be retained in the office of the adjutant-general; plans of forts, &c., are kept in the office of the executive engineer of the division; but some more definite organization is required in these matters.

Colonel H. N. D. Prendergraet,
R. E., Commandant "Queen's Own"
Sappers and Miners, Madras.

Technical engineering military questions are sometimes referred to the commandant of sappers, but not military questions connected with barracks and fortifications. Questions relating to the *personnel* of the engineers and sappers pass through the Military Department, the adjutant-general, and commandant of sappers. The records of engineer work in the field, sieges, plans of forts, &c., are kept by the quarter-master-general.

Colonel the Hon'ble C. J. Merriam,
C. S. I., Acting Secretary to
the Government of Bombay, Public
Works Department.

There is, I should (a) say, no fixed course of procedure. The quarter-master-general's department would probably deal with such questions, taking the opinion of the engineer officer of the district.

(b) These matters are usually dealt with by committees assembled for the purpose specially, one or more engineer officers being selected to sit on the board.

(c) Such questions are arranged by the Government or by the Commander-in-Chief.

There is no fixed office for the retention of such records that I am aware of since the abolition of the office of the commandant of engineers.

Lieutenant-Colonel R. deBourbel,
Consulting Engineer to the Govern-
ment of India for Guaranteed
Railways at Lucknow, now on spe-
cial duty in Biluchistan.

(a) Technical engineer questions seldom arise; might be referred by the senior engineer as assistant adjutant-general to His Excellency the Commander-in-Chief.

(b) These are usually settled by the general commanding the division, by the Commander-in-Chief, or by the Military Department of the Government of India, according to their respective powers, the military works branch of the Public Works Department expressing its opinion through its officers, local and at head-quarters.

Lieutenant-Colonel A. M. Lang,
R. E.

The Public Works Department deals with engineering questions generally; and the military works branch of that department deals with questions of barracks and fortifications, the procedure being that laid down in the Public Works Department Code.

The execution of works on barracks and fortifications in the Bengal presidency (as well as of military roads, cantonments, water-supply, and barrack furniture) is at present in the hands of executive and assistant engineers, both civil and military, working under the central control of the inspector-general of military works.

For these works an annual budget grant is allotted by the supreme Government in the Public Works Department, and the choice of the works on which this grant is to be spent is settled by the Commander-in-Chief and Military Department on a selection from the works recommended by committees convened in every cantonment.

In this selection the Commander-in-Chief and Military Department are guided by an approved scheme of accommodation for the troops in the presidency. The elaboration of this scheme and of standard designs has been effected by the inspector-general military works and his staff.

In regard to fortifications (which of course form part of the works under the inspector-general of military works), during the past two years a central committee has sat at Simla for the elaboration of large projects; and to this committee questions concerning defences and armament are now referred for consideration and opinion; but all work is carried out under the orders of the inspector-general of military works.

For questions connected with the *personnel* of the engineers, there is no recognized special authority. There should be at army head-quarters, as one of the staff of the inspector-general of military works, an officer discharging the duties of a deputy adjutant-general of engineers.

There is, I believe, no organization for recording engineer operations in the field. The office of the inspector-general of military works, if he be recognized as head of the corps, and have a suitable head-quarters staff, would seem the natural repository for such records; as well as of all plans of fortresses and fortified forts existing and projected.

Lieutenant-Colonel J. Hills,
R. E., Commanding Bombay Sappers
and Miners.

If by the technical questions (a) it is meant engineering questions concerning pontoons, ladders, &c., &c., they have been as a rule forwarded to the officer commanding sappers and miners for report from the quarter-master-general of the army; but (b) military questions concerning barracks and fortifications have passed, as far as I am aware of, entirely into the hands of the civil powers—the Public Works Department; for instance, the fort which it was intended to have constructed at Kirkee to protect the powder-works, &c., was, I believe, designed and drawn out by the executive engineer of Poona of that particular period, who is entirely under the civil power as distinct from the military.

The mere *personnel* of the sappers and miners has been conducted between the adjutant-general, Bombay, and the officer commanding sappers and miners. But in all these transactions the utility and absolute necessity of an officer of royal engineers at head-quarters becomes more and more apparent.

Unfortunately now-a-days, somewhat similarly to the fact that every man considers himself more or less a doctor, almost every officer in the army of any standing considers himself more or less competent to conduct the duties which ought to devolve upon officers of the royal engineers; in this they quite overlook the fact that it requires a special study for five years before a thoroughly effective royal engineer officer is developed, and that the majority of these officers have been proved to be of greater talent than the ordinary average of the officers of the remainder of the army. It is curious and edifying to note the difference between the use of engineer officers in the Continental armies—men who do not receive nearly so good or high a standard of education as our own do, how they are specially consulted and how distinct are their duties. Compare this with the casual way the work in our army in India is carried on by anyone or by anybody; there can be but little doubt that the position and duties of an engineer officer in India are not valued at their proper worth.

Records of engineer work are possibly kept in the quarter-master-general's office, though there ought to be a special office for such papers at the head-quarters sappers and miners of each presidency. There is no office accommodation of any sort at present built with head-quarters sappers and miners in this presidency.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field Force.

(a) I am not aware, but I presume a technical question on military engineering would be referred to the officer commanding sappers and miners at Roorkee, at the present time I believe a young captain royal engineer.

(b) These have hitherto, I believe, been wholly in the hands of the public works department, a purely civil department, to which arrangement may, I think, be attributed the present melancholy spectacle of the arsenal at Rawal Pindi. Lately questions of any importance with regard to fortifications have been with much advantage referred to the defence committee.

(c) I apprehend that there is no royal engineer officer in India who has the smallest right to advise the military authorities with regard to the employment of engineer officers in the field. If there had been, I don't think we should have seen the royal engineer staff of the 1st Division, Southern Afghanistan Field Force, composed of a lieutenant-colonel commanding royal engineers, his second-in-command, his brigade-major, a regimental field officer, and then a group of subalterns.

Engineer records of work in the field, &c., are forwarded to the quarter-master-general's office. Whether they are retained or not I am unable to say; but I know that when, some time ago, I urged Colonel George Chesney, Royal Engineers, who was brigade-major of engineers at the siege of Delhi, to write some account of the engineering operations at that siege, he told me he had been quite unable to find any trace of his records, although he had kept and forwarded a most careful diary.

I know of no existing record of any military engineering operations that have been undertaken in India, and certainly none such have been published within my recollection.

Lieutenant-Colonel D. Limond, R.E.

If of importance, they would probably be dealt with by a special committee assembled under the orders of the Government of India or His Excellency the Commander-in-Chief.

Questions regarding fortifications would now be dealt with by the defence committee; regarding barracks, by the inspector-general of military works.

Questions regarding *personnel* of the sappers by the Military Department, and of officers of engineers by the heads of departments under whom they might happen to be serving.

Field records I should think would be found in the office of the quarter-master-general. Plans of forts are recorded in many offices, quarter-master-general's, Government of India, Military and Public Works Departments; also in local offices of the military works branch, public works department.

Lieutenant-Colonel W. H. Bur-
ton, R.E.

(a) I believe the adjutant-general would deal with such under the orders of the Commander-in-Chief. As an instance of how, even in the adjutant-general's department, different measures are meted out to two officers supposed to be serving under similar conditions, a claim was made against two lieutenant-colonels, royal engineers, for donation to sapper mess on promotion, resisted by each, and on appeal—the one to the Commander-in-Chief in India, the other to the Commander-in-Chief in Madras—two different decisions and results were arrived at.

(b) Military questions connected with barracks and fortifications in any of the Madras military divisions would be dealt with by the secretary to Government and quarter-master-general, Madras, and if necessary, as for instance in the Nagpore force and Hyderabad force, would be referred for execution to the Government of India. The Government of India would receive such I believe in the military department, which would transfer it to the public works department, by which channel it would reach the inspector-general of military works, who would at length be enabled to deal with such questions. This circuitous procedure, I think, requires a remedy.

(c) Questions relating to the *personnel* of the royal engineers of the public works department would be dealt with by the Governor in Council; but of those engineers attached to the sappers and miners, by the Commander-in-Chief.

Records of engineer work are kept I believe in the office of the public works department under the Government of India.

Captain J. Dundas, R.E.

(a) Technical engineer questions are usually disposed of by orders in the Military Department. As to these, the Commander-in-Chief has sometimes consulted the officer commanding the sappers, and the Military Department often refers to the public works department.

At the present moment an agency exists in the defence committee for the consideration and settlement of such questions. But this committee is not a permanent one. The deputy adjutant-general would be a proper referee.

(b) Military questions connected with barracks are settled in the military department on suggestions made by the inspector-general of military works or the public works department. Matters of fortification are usually referred to the defence committee, whose place would be taken by the deputy adjutant-general.

(c) Questions of *personnel* relating to the sappers are settled by His Excellency the Commander-in-Chief and the Military Department, but that department has agreed* to leave to the Public Works Department all matters relating to the employment of royal engineer officers on other than purely military duties.

Records of engineer work in the field are (if at all) probably to be found in the quarter-master-general's office. The deputy adjutant-general's office would be the place for these.

Plans of forts exists in the office of the executive engineer and of the public works department and military secretariats, as well as in the quarter-master-general's office.

Captain W. H. Pierson, R.E.

In the Bengal presidency twenty-nine forts are in the charge of the inspector-general of military works, and arrangements are being made for a complete set of plans of these. Six minor forts are in charge of Local Governments. Questions connected with barracks and fortifications, sent up by the inspector-general, pass through the public works secretariat to the military secretariat, and the orders of Government return through the same circuitous channel. Recently, however, many questions relating to forts and armaments have been referred, both by the public works and military departments, to the defence committee for report, and the preparation of designs and estimates where required. This procedure has worked well as a commencement, considering the accumulation of long pending and intricate questions that have to be carefully examined. The committee as at present constituted (*viz.*, consulting naval officer to Government, quarter-master-general, inspector general of ordnance, one artillery and three engineer officers) is to be dissolved; but the experience gained proves the necessity, in the interests of economy and of efficiency, and for the facility of arriving at final decisions, of referring all such questions to some similar body of officers (if possible of high standing in the service) before they are submitted for the sanction of Government. In the Bombay and Madras presidencies these questions are to a great extent dealt with locally, and it needs but an inspection of the existing defences of Bombay, and a comparison of the result attained with the money actually expended to show that all future projects of this nature should be subjected to the searching criticism of specially qualified officers under the immediate control of the Supreme Government. This point will be again noticed in my answer to question No. 66.

Captain H. H. Cole, R.E., Executive Engineer.

(a) Technical military engineering goes through public works department.

(b) Military buildings are under the inspector-general of military works. There is no permanent and systematic organization for dealing

* The arrangement was published by Public Works Department Resolution No. 1235-51 E. G. of 28th October 1871.
See page 468.

with the defences of India. Captain Featherstonehaugh, R.E., has charge of torpedoes under the quarter-master-general. There is no deputy adjutant-general, royal engineers.

(c) The military *personnel* is dealt with under the Commander-in-Chief; but when officers in the public works or other civil department are applied for by the army authorities, the *personnel* question is dealt with by Mr. Sampson, Under-Secretary in the Public Works Department, and by the secretaries of departments concerned.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

Records of engineer work are kept in the office of commandant of royal engineers at Roorkee.

60. What instruction does the corps of royal engineers in this country impart to the army in general in military engineering?

Major-General F. H. Maunsell, C.B., R.E.

None, except on rare and special occasions and to limited numbers, as at camps of exercise. A few cavalry soldiers have sometimes been taught sketching and reconnaissance. Indeed, all royal engineer officers are specially employed on other duties, and very few of them on purely military duties.

Major-General A. Fraser, R.E.

The corps of the royal engineers in this country imparts no instruction that I am aware of to the army in general in military engineering.

Colonel J. G. Medley, R.E., Consulting Engineer to the Government of India, Railway Department.

None that I am aware of.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

The corps of royal engineers imparts no instruction to the army in general, except on field service, in camps of exercise, and occasional engineer field days at Bangalore.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

Little, if any at all, as at present organized. The corps is not in a position in this country to undertake it.

Lieutenant-Colonel R. deBourbel, Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

At all military stations in India where the officers commanding detail working-parties of soldiers for employment on military and other works in progress, practical instruction in many branches is given by the public works officers in charge. If this mode of instruction, the best of all, were more resorted to, all officers and soldiers might learn more or less the simple work alluded to in the question. No amount of theoretical teaching on the part of royal engineer officers would be of much use to the ordinary soldier.

Army signalling is taught by royal engineer officers to line classes at the three presidencies. In some of the garrison classes many royal engineer officers were instructors.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

The corps of royal engineers does not give any instruction to the army at large in military engineering, but army signalling instruction is carried out under the orders of the commandant of the sappers and miners, assisted by an officer of the royal engineers as instructor of army signalling. The duties of this officer have already been detailed.

Lieutenant-Colonel W. Hichens, Commanding Royal Engineers, Southern Afghanistan Field Force.

None whatever.

Lieutenant-Colonel D. Limond, R.E.

There is no regular system of instruction. Instruction in escalading is sometimes given if applied for.

Captain W. North, R.E.

None that I know of, except in a very casual way.

Captain W. H. Pearson, R.E.

No arrangements have yet been made to enable the corps of royal engineers in this country to impart instruction to the army in general.

Captain H. H. Cole, R.E., Executive Engineer.

None, except in actual service.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

The detachments sent to the Thomason College at Roorkee go through a course of military engineering with the sappers and miners. Detachments of sappers are also detailed for to assist in the garrison school classes.

61. (a) Ought not soldiers of all arms, whether British or Native, to be taught such elementary military engineering work as is necessary on field service? For example, should they not be able to construct shelters of some kind with available materials, and execute the simple engineering work required in camp, &c.?

(b) If you consider that something is necessary in this direction, how would you propose to remedy the defects in the present training?

Major-General F. R. Maunsell,
C.B., F.R.S.

(a) I think that all soldiers should be trained to some engineering, or at any rate to work. I was of opinion at the time of the last reorganization of the Native army that their duties as workmen should be specially emphasized, and that the principle carried out in raising pioneer regiments should be more widely established. I am of opinion that the existing arrangement of only using a peculiar class of men, who, though very good soldiers and workmen, and highly appreciated (by no one more than myself), being of a class contemned by other Natives, tends to discredit or debase the idea of working. Natives naturally argue, if you talk so much of work, and pretend that it is an honorable and good thing, why do you take care only to employ men *we* all look down upon. I have had many a soldier punished for deprecating work to the sappers. Many years ago there was a grand fight at Delhi between a regiment that bullied the sappers as beneath them as coolies, in which the sappers, who were on their own dunghill there, were joined by some artillery and their own British non-commissioned officer. No; I am sure that other men besides Muzbees should also be made pioneers.

We find an enormous difference between infantry men who have had any training and those who have had none; the work on the hill roads is a very good training (besides the climate). My own idea has long been that there should be some ten men per company well trained in each regiment. Without an enormous staff of instructors and plenty of time, I have long found that one cannot usefully train large numbers quickly, and that the staff available is better employed upon very thoroughly training small numbers at a time. Inducements should be offered—not necessarily money.

Each company of the line would thus have ten or a dozen men able to do something, and the whole eighty or a hundred would turn out a respectable body of workmen. They should be picked men and have a badge; they might be given some advantages, work found for them now and then with working pay, &c.

An officer of the regiment should also be able to look after their working.

I have several times made attempt at taking up this question as well as the instruction of officers, but not very successfully, and I moreover found that my own staff would not take up any regular business of this sort without neglecting their regimental duties.

(b) As to anything being absolutely necessary, I must say, however, that the system I sketch would be more than seems to be attempted in any other army. Still, considering the very small number of sappers in this army, I do think that either they should be increased, or that their want should be supplemented by some system; though I do not think that any makeshift could supply the want of efficient trained sappers.

As to the measures required to carry out such instructions, I do not understand that the 23rd and 32nd Punjab Native Infantry (pioneers) undergo any regular training, but that they pick up their experience as they happen to be on the works, and that they start just as any other regiment would, with some tools and artisans added.

To carry out a system, a sufficient number of instructors would be required, British non-commissioned officers and Natives, and this not so easy a matter. The sappers have difficulties as to the style of British men generally sent from England, and have to train and try them for some time.

The object would be to spread the system as widely, and to render it as soon useful as possible; for this a short course to the minimum number per regiment that would be likely to be useful in it for some time, say four or five men per company. It should at first be at sapper head-quarters, though subsequently it might be extended. To maintain it, practice should be given and inspections, and for this an officer and an assistant instructor should visit the different regiments. It would be most important to get commanding officers to interest themselves about this.

This suggests to me a convenient way of supplying a double want, namely, the want of an inspector for army signalling. I think the same officer might undertake both jobs—signalling and field works.

Some detail systematizing would be necessary. I would have printed instructions in three parts: 1st, for simple execution necessary for all;

2nd, a few principles of defence; 3rd, lining out; also the men instructed should have certificates on three scales in accordance with these divisions.

Major-General A. Fraser, R.E.

In my opinion soldiers of all arms, whether British or Native, should be taught such elementary engineering work as is necessary on full service; the sapper head-quarters should be a school of military engineering, and an officer and some non-commissioned officers should be sent yearly from each regiment for training. I look upon the non-commissioned officers as the backbone of the army, and attach the greatest importance to their careful selection and training, and it is on this account specially the necessity of giving proper training to soldiers of other arms, both European and Native, that I suggest that a definite part of the sappers be European.

Colonel J. G. Medley, R.E., Consulting Engineer to the Government of India, Railway Department.

(a) Most certainly. The difficulty is to persuade commanding officers of the necessity. As a rule, it may be said that work with the shovel and pick is very unpopular with officers and men of the line in the British service—certainly in time of war. There is an idea that it is unmilitary, that it spoils the men's setting up, and makes them slovenly, &c.; and most royal engineer officers would far rather have gangs of coolies to throw up a battery or make a road than working-parties of soldiers.

(b) The best way to remove this feeling (which is often very mischievous on service) would be to do what was done a few years ago in England, *i.e.*, to send selected parties of officers, non-commissioned officers, and men from line regiments in rotation to the sapper head-quarters, to be instructed in the use and practice of the simpler operations of field engineering, so that they might act as instructors to their own regiment on their return. A certain portion of the drill season should be regularly set apart for this kind of work; and the general's inspection of the regiment should include a report on the proficiency of the men and officers in throwing up shelter-trenches, rifle-pits, and similar useful work. The men should get working pay while so employed. When I was last at Chatham, seven years ago, a party of the guards was down there under instruction, and worked right well, the officers setting an excellent example to the men by taking off their coats and working amongst them like common navvies. Where there is this sort of spirit, the business is easy enough; and in this, as in other matters of the same sort, very much depends on the commanding officer.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

(a) Yes. Officers commanding regiments should be ordered to teach their men a sort course of simple and useful field expedients.

Colonel the Hon'ble C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

(a) I would confine the engineering work to the engineers and sappers, but the soldiers of all arms should be able to use the pick and shovel so as to aid in throwing up field works on an emergency.

(b) I would supply them with tools and give them a working parade once a week on a field work. They might often be usefully employed in cutting drainage channels and filling up hollows, &c., in or near their cantonment.

Lieutenant-Colonel R. de Dourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on duty in Baluchistan.

File answer 60,

Lieutenant-Colonel A. M. Lang, R.E.

The head-quarters of the sappers and miners should be a field for training the line in elementary field engineering, in signalling, &c. Detachments from regiments stationed near Koorkee, Kirkee, or Bangalore should spend over two months during the winter in camp at the sapper head-quarters, and join with the sappers in siege operations. The officers and non-commissioned officers of these detachments could act as instructors to their regiments.

The commanding royal engineer and garrison engineers of the military works will have on the reduced scale of establishment too much work on their hands to act as instructors in garrisons. But if all royal engineer subalterns on landing in India be posted as supernumeraries to the military works branch, they might be utilized occasionally to assist the regimental officers (who had passed through a course of field engineering as above proposed) in teaching the men of their regiments.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

No; I think it would be a waste of time to force them through a course of anything but simple shelter trenches, &c.; but I think it would be highly advantageous were they taught the use of the pick and shovel in a thoroughly effective manner; the more practice they have with these tools the better, and the cost would be but a trifle. To this end all

works around a camp should be executed by detachments of the line, &c., if necessary under the supervision of a few sappers. The duties of these latter are special, and it is not their work (as is so often understood by infantry and cavalry officers) to undertake the rough ordinary labor in throwing up earth, to raise the roads or dig rough trenches to drain a camp, &c.; these should be executed by line parties working if desired under sapper direction, one sapper to each 10 or 20 linesmen being told off to supervise the several smaller tasks. The excess of sappers (should there be any) would be detailed for the performance of the most difficult portions requiring skilled labor, as emplacement for guns and light bridges over drains, shelter cover, blindages, &c., &c. I would most strongly impress the use of the pick and shovel on the line, in order that they may fully understand and execute their portion of all work, and leave to the sappers the directing and supervising head, the regulation of his proper duties, which I may add are *not* to make the ordinary drains about a camp, clear the latter of stones, and do battalion drill and act as skirmishers on service, all of which duties I have seen them called upon to perform in the field.

At the same time, I am strongly of opinion that there should be incorporated in each regiment, on a trifle more pay, a certain number of men who have been well trained in military engineering duties to replace the old system of the pioneers. These men would guide and direct the regiment if detached from head-quarters on any earth-works or trenches thought necessary on the spur of the moment, could throw up barricades, set up obstacles, make rifle-pits, construct small rafts to enable parties to cross streams, and make any temporary bridges about a camp.

These men should be passed through a regular course of service and training for at least three years with the head-quarters of the sappers and miners. The regular field work course for recruits is about a year in duration, but in this instance greater practical acquaintance with each subject, not only to execute but to supervise, is required; and hence they ought to remain for at least three years, learning during this time some particular handicraft in addition to the general knowledge he may be acquiring.

These men ought to consist of three or four of the pick of each year's recruits, none but men of intelligence being chosen, and who having been thoroughly taught their drill and gone through satisfactorily the musketry exercise, should then be sent to the head-quarters of sappers and miners for their additional training in military engineering.

Supposing three or four annually were chosen from the passed recruits, there would be 12 or 16 men of each regiment undergoing this course of training, each batch of whom would at the end of third or fourth year return a practical man to his regiment, where he would serve about 15 years more.

Following this out, we obtain after the system is in full application from 50 to 60 really well-trained men in each regiment, who would form even of themselves enough in numerical strength to carry out a considerable work, such as a spanbridge, &c., &c.; these men could be, moreover, utilized in teaching and supervising the remainder of the regiment in the use of the pick and shovel. Any attempt to improve the general knowledge of the majority would, in my opinion, do more harm than good, as tending to unsteady them and by tasking them with work unpaid, lead them to be slack and inattentive to the other more important duties of a regiment, *viz.*, drill and musketry exercise.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineer,
Southern Afghanistan Field
Force.

(a) I think certainly.

(b) If the organization of royal engineers was carried out in this country as it is at home, and as I hope it may be here, there would be no difficulty. The officer in charge of all military works should be the commanding royal engineer of the division on the staff of the general. He would have one or more companies of sappers and miners at head-quarters with their officers, who during the drill season could be employed in putting the troops through a short course of instruction in field-works, &c. The royal engineer workshops would be available for the instruction of such soldiers of the line as had any turn for artificer's work, and the men thus taught would be available for the maintenance and repair of their own barracks. In a very short time I should hope to see every regiment with its carpenter's and smith's shop, where interesting and profitable employment would be found for the men, their comfort and health in cantonments would be improved, and their efficiency in the field vastly increased.

Lieutenant-Colonel D. Limond,
R.E.

(a) It would certainly be attended with benefit; but there would be considerable practical difficulties in giving instruction beyond the construction of field works. For instance, a company cannot be told to but themselves without damage to private property resulting. Types of huts could be put up by military labor, but I doubt much benefit arising.

(b) I am more in favor of introducing the actual construction of field works in our winter sham fights: more interest would attach to such a course than in the case of the lesson being on the parade ground. There are engineer officers in every large military station, and I see no difficulty in giving any instruction requisite.

Lieutenant-Colonel W. H. Burton, R.E.

(a) I do not think that, as a general rule, any elementary military engineering work further than that which is involved in shelter trenches and the heavy earth-work in field works generally, or in roads over rough ground or jungles, may be expected from either British or Native infantry, however carefully they may have been previously trained by the royal engineers.

Still I believe that the instruction of a corps in hutting themselves might be found to have been advantageous under very favorable circumstances.

(b) The senior royal engineer officer in the district in which such regiments are serving should every year detail one of his officers to superintend an instruction for each corps in his district in the above-mentioned elementary engineering works, and see that each is put through a regular course.

Captain J. Dundas, R.E.

(a) Certainly; they should be able to do for themselves as far as possible all simple camp matters, &c.

(b) This must be done by regimental officers. If thought necessary, a special officer might be appointed in the same way as an inspector of musketry is appointed, who might perhaps go through a short course with the sappers. But as the main work to be learned would be of a common-sense kind, the best training would be to have the troops in camp and actually marching as much as possible. In fine weather in the hills marching without tents might be practised.

Captain W. H. Pierson, R.E.

(a) Soldiers of all arms, whether British or Native, should undoubtedly be taught such elementary engineering work as is necessary on field service.

(b) I have already remarked (in answer to question No. 11) that to enable soldiers to understand the nature and object of field works, and to avoid discouraging them by excessive physical labor, it is important that the number of men under instruction should be as large as possible. Every regiment in a station should consequently be put through a course of field works at the same time. The programme of subjects to be taught, the length of time to be devoted to the course, and the intervals between each course of instruction, will require very careful consideration, and should be laid down in general orders. The local direction of the instruction at each station could then be entrusted to the garrison engineer and his assistants, in communication with the field works instructor at Roorkee.

Captain H. H. Cole, R.E., Executive Engineer.

(a) Certainly.

(b) Officers of royal engineers should be attached to the staffs of generals for the purpose of instructing the troops in signalling, hutting, and simple engineering work.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

All soldiers, British and Native, ought certainly to be able to work at trench and other shelter work; also drainage of camps and military road-making. The regiments of foot guards, rifles and line all went through a short course of such work in 1853-54 at Chatham before the Crimean War, and the splendid guards were found to be the best workmen. There is no disgrace in digging. I have superintended as a sapper the nobility of England, officers in the guards at such work, done with a right good will.

I would put the articles of war in force, and let digging be part of the duty of every soldier, British or Native, in the army.

62. Do you not consider that officers of royal engineers, whether employed in this country on civil or military works, should, either when on furlough (as lately provided for at Chatham) or out here, say every five years, refresh their military knowledge by a few months' course at purely military engineering and military duty?

Lieutenant-General C. W. Hutchinson, R.E., Inspector-General of Military Works.

If the system advocated in my answers to question 66 be adopted, whereby the connection between the officers of the military works branch and the army staff be more closely drawn, the royal engineer officers of that branch will have their military organization on a proper footing, and their military habits and instincts kept alive; and as members of the staff of general and commanding officers, they will have opportunities of refreshing their knowledge of drill and tactics, and of occasionally attending camps of exercise and improving their acquire-

ments in strategy and military engineering. For such officers there would be no need for a return to Chatham or Roorkee, except on the occasion of their qualifying for regimental promotion.

But in the case of royal engineer officers other than those employed with the sappers or on military works, a certain fixed course of training at Chatham or Roorkee, after a prescribed period of departmental service, would be necessary to keep up the knowledge of military engineering, which it is the obvious duty of every royal engineer officer at all times to possess.

If this necessity be officially recognized and orders issued in regard to it, the position of these officers, both at Chatham and at Roorkee, should be distinctly defined, so that they should not be received at the schools of military engineering as amateurs merely permitted to learn what they can, while having no recognized official status on the establishment; but they should be brought on the strength of the establishment at head-quarters of the regiment having clearly defined position and duties.

Major-General F. R. Maunsell,
C.B., R.E.

I think that royal engineer officers who are liable to join the army in the field in staff posts should be refreshed as to their knowledge of ordinary military business and discipline. I think they are generally most wanting in these points and in ideas of military organization and of the relation and subordination between the different ranks, both for professional works and other duties. No doubt the more officers who can get this refreshment the better. I would give those on actual military duty the preference, *i.e.*, at Chatham, and next those likely to get it. Engineers joining from public works have acquired great praise in employing the people of the country and in works and material, which is an advantage. Acquaintance with military duties is their chief deficiency.

Major-General A. Fraser, R.E.

I also consider it of great importance that the officers of royal engineers employed in this country on civil works should from time to time refresh their military knowledge by a course of purely military engineering and military duty; but I consider that such a course once every seven years would be sufficient.

Colonel J. G. Medley, R.E.,
Consulting Engineer to the
Government of India, Railway
Department.

As regards general military duty, most decidedly. I would attach them for six months to the staff of a general officer, especially if there was a camp of exercise going on. A return to the sappers would scarcely be necessary, unless for a very short time (say a month), to give them the opportunity of seeing the most recent improvements in military engineering. It is to be borne in mind that the ordinary duties of a military engineer in the field are not very difficult or recondite; and the mere technical knowledge is such as any officer of fair intelligence can readily acquire. One royal engineer is a better service officer than another, not because he can draw better plans or is a better mathematician, but because he has greater energy, self-reliance, and readiness of resource; and these qualities are as likely to be developed in civil as in military employ. In the whole body of royal engineers, the Government has, I venture to think, not merely a certain number of officers taught to build batteries, to make bridges, or to blow up towers,—for these are things very easily acquired,—but a body of highly educated officers, employed in very various duties, out of whom it can always find, when required, men fit to undertake almost any duty that can be named. That, to my mind, is the real utility of the corps to the State and its highest claim to distinction. As in the case of the Indian civil service, it is in the varied and responsible nature of its duties that it finds at once its best training and its claim to merit. And I should be very sorry to see any attempt to narrow the field of that duty and training under a false idea of the requirements of military service. I should even deprecate any attempt to confine the military engineer to what are called military works, as being the more legitimate sphere of his duties, believing, as I do, that the more varied the field of employment and instruction afforded to the officers of the corps, the greater is the certainty of their purely military duties being well performed. But though I take this very comprehensive view of the functions and capacity of the corps to which I have the honor to belong, I am very strongly in favor of maintaining that military spirit and organization which will always be the best preservative of integrity, high public spirit, and *esprit de corps*.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's
Own" Sappers and Miners,
Madras.

Yes, and greater facilities should be afforded the commandants of sappers and miners for keeping up with the military fashions. To show how far behind we are, I may mention that I have never yet been able to obtain any gun-cotton. All useful papers touching engineering questions should be circulated to commandants of corps. Papers from the Defence Committee would be valuable.

Colonel the Hon'ble. C. J. Merriman, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

Lieutenant-Colonel R. de Bourbel, R.E., Consulting Engineer to the Government of India for Guaranteed Railways at Lucknow, now on special duty in Biluchistan.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

Lieutenant-Colonel W. Hichens, Commanding Royal Engineers, Southern Afghanistan Field Force.

Lieutenant-Colonel D. Linford, R.E.

Lieutenant-Colonel W. H. Burton, R.E.

I think so most decidedly; but there are no facilities at present for such an arrangement in this country, and I think it would be better in every respect to let the officers follow the course at Chatham.

One year in every ten of service would suffice for this purpose. The existing rules provide the means for this. An officer in the royal engineers is now sent out to India for seven years, at the end of which he can either go home on military duty or serve one year more in India to entitle him to a furlough of two years, one of which he can, and should, spend at Chatham at the royal engineer establishment. There is no occasion for any additional rule for further military training in India if, whenever camps of exercise are held in India, a full complement of royal engineers be ordered to attend as heretofore.

Royal engineer officers now come out for seven years' service, and would when their tour is accomplished return to duty to Chatham, where they would revert to their military duties; but those officers who had elected to remain beyond their tour of service in India might undoubtedly be sent with advantage to the head-quarters of the sappers for a few months, for instance on promotion or when they return from furlough.

As strong as my views are on the necessity of returning for a short period each engineer officer to the head-quarters of corps in order to enable him to brush off the cobweb of rust from his brain and revive his memory and knowledge of the minor details of the military portion of his profession, they are equally so as to the disadvantage of retaining young officers with the corps for any length of time, unless they have some special duty or appointment, as commanding a company, &c.; for, in my opinion, the more independent and responsible work a young officer has to perform, the better it is for his general training and character. A well-trained young engineer officer never will forget the general principles instilled into him so carefully in his five years' education. He may and probably will forget the petty details and become rusty in his drill, but a comparatively short sojourn with head-quarters from time to time would sufficiently clear up his former knowledge. At the same time the roll and the organization of the sappers and miners should be kept fully complete and up to all requirements, and for such a purpose a very fair number of officers whose duties are ample are required; any above the number should be drafted into the public works department till, should he prefer purely military life, a vacancy occurs in the corps, when he might return all the better from his brief glimpse of work executed by the great civil departmental branch of engineering.

Certainly; but I do not think any good would be derived from a sojourn at Roorkee.

In my opinion, the best arrangement would be that all royal engineer officers should return to Chatham immediately on their promotion to the rank of captain and major, unless they had put in a year's service at the school of military engineering after the first and second tours of seven years in this country. A year is much more than is required to freshen their knowledge of military engineering, except as regards the construction of sea defences and iron batteries, which are special subjects; but not, I think, more than is necessary for military duty.

A long service in the public works department in this country tends to deaden and destroy all soldierlike feeling and habits of discipline; and my experience is that, after long years of uninterrupted civil work, many royal engineer officers are more inclined to criticize than to obey orders. This tendency would of course be much diminished, and indeed would not, I should hope, exist among those officers who were employed on military works and kept, as I propose, upon the strength of the divisions of the army; but there will always remain a large number serving as civilians, and I think these gentlemen should understand that they were under any circumstances to be excused from their tour of military duty at Chatham; they would forfeit all claim to employment in the field.

I have for many years held this opinion; it is essential to efficiency. A full year after every five should be devoted to purely military study. I deprecate anything less; regular duties leave but little, very often no time for study.

I think three months' course of field engineering at head-quarters of sappers in India every five years would be highly beneficial to officers of all ranks on the effective list.

I think that no royal engineer officer should need be withdrawn from taking his turn of garrison and court-martial duty with the officers of other corps; it is very desirable indeed to secure our efficiency in

war, that we be associated as much as possible with the officers of all arms in peace. For the twelve years during which I was on the Imperial establishment, I was so without hindrance to my duties as a royal engineer officer.

Captain J. Dundas, R.E.

Certainly; this seems most desirable.

Captain W. H. Pierson, R.E.

Every officer of royal engineers in civil employment should refresh his knowledge of drill, military law, and field works by a short course at certain intervals at Chatham. I doubt whether he would find much to learn at Roorkee, unless officers of considerable standing and attainments be appointed instructors there, as recommended in my reply to question No. 11.

But as regards officers on military works, their military knowledge should never be allowed to rust, and no special arrangements should be required to re-polish it. I would make every garrison engineer and his subaltern in a station liable to military duty, such as attendance at brigade parades, &c., court-martial as in England. And there could be no better instruction for them in field works than having to instruct the troops, as proposed in my answer to question No. 61 (b).

Captain H. H. Cole, R.E., Executive Engineer.

I think it essential to the efficiency of officers of the corps of royal engineers that a course of military duty should be absolutely compulsory every five years, failing which officers should go on the permanent reserve list.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

I would permit every officer in British or Indian army to go through a course of military engineering at Chatham or at Roorkee. I went through this course at Chatham in 1873, lasting three months, and profited greatly by so doing. Time spent at Chatham should to the Indian officers count as service towards pension, if they obtained a certificate of having made good use of their time, not otherwise.

63. -In war in India and beyond the frontier, what should be the system of constructing and working telegraph lines? As we have in India a very efficient Government Telegraph Department, should we not look to that department to construct or maintain the lines up to the advanced depôt or post of the main body, the sappers merely laying the field lines from the advanced depôt to the head-quarters of the general in command, &c.; in fact, where the force may be said to be in contact with the enemy? Should, as in other armies, the telegraph system from the base of operations be under the commanding engineer in general administration?

Major-General F. R. Maunsell, C.B., R.E.

I consider that in war in India the Government civil telegraph line should, as a rule, put up and maintain semi-permanent lines when they are required to cover any great length of country, but that in all cases there should be a military aerial line between the civil line and the head-quarters of the general in command.

The military line should be lighter, more easily transported and worked, more easily put up and taken down, and of less expensive material than the civil line, except a small portion of military cable for special occasions.

In my report on result of operations in Afghanistan and suggestions for improvement, letter No. 825 of 11th August last, to quarter-master-general, I take forty miles as a convenient length for a military unit; but once organized, it could easily be extended over any distance intervening to the civil field line office. This would generally be convenient, and the civil line replacing it as feasible.

In our late experience, as a matter of fact, this was done for forty miles, and we should have been without a telegraph for six weeks had we not put up a portable military aerial line: and again for thirty-five miles working for a fortnight, and passing five thousand messages.

In the case of an army marching a great distance without halting, it would hardly be feasible or necessary to keep up a line: in such case, I would move the military line with the army, ready to be run back to meet the advancing semi-permanent civil line.

I consider that the commanding engineer should exercise a control over the field telegraph system.

As an evidence that it is not always possible for the civil department to meet the requirements for field telegraphs, I note that in December last the 5th Company Sappers, now at Roorkee, on the Khojuk pass road, was required to send a detachment to put up the civil telegraph line from Quetta to Kandahar. Although the opening of the pass was so urgent that the lieutenant-general suspended the order pending a reference, it was found that the telegraph line could not be put up

without the sappers; they accordingly went on 28th December 1878, and are still on duty there under E. Pitman, Esq., Civil Telegraph Department, not being allowed to join their company on its return. Mr. Pitman informed the officer commanding the company that it was impossible for him to organize any system to effect his work without sappers.

Major-General A. Fraser, R.E.

For the construction and working of telegraph lines in connection with operations in the field, we should look to the Government Telegraph Department to construct and maintain the lines up to the advanced dépôt or post of the main body, but a certain number of sappers should be trained and employed in the telegraph department for detachment on this service in time of war. The telegraph system in advance of the base of operations should then be placed under the commanding or field engineer in general administration.

Colonel H. N. D. Prendergast, R.E., Commandant "Queen's Own" Sappers and Miners, Madras.

In India, and beyond the frontier, in war, it is recommended that the Government Telegraph Department should construct and maintain the lines up to the point on the communications where there is danger from an enemy; where coolness and courage are required, soldiers should be employed. Military telegraphs within the tactical zone should be constructed and maintained by the commanding engineer. Those in rear should not be in his charge in any way. In Abyssinia the line was constructed by the engineers, and when completed was handed over to the quarter-master-general.

Colonel the Hon'ble C. J. Merriam, C.S.I., Acting Secretary to the Government of Bombay, Public Works Department.

I should be in favor of utilizing the Government Telegraph Department in India to the fullest extent practicable, even beyond the advanced depot. I can see no special merit in having the entire system from the base of operations under the commanding engineer.

Lieutenant-Colonel R. de Bourbold, R.E., Consulting Engineer to the Government of India for Guaranteed Railways, Lucknow, now on special duty in Biluchistan.

It would be an advantage to the public service if more royal engineers, officers and non-commissioned officers, and the reserve sappers under my proposed system were employed in the telegraph department.

In time of war these officers and soldiers might form a telegraph train and be sent by the department to the front to work under the orders of the general commanding the army through the commanding royal engineer.

The companies of sappers present in the field might help in any way thought advisable; but practically, the telegraph train, possessing in its field-park all the material necessary for constructing and working the telegraph, should undertake the whole work with the above assistance. In the Ashantee war the telegraph train was composed of officers and men of the royal engineers, who were drafted from the body of State telegraphists in England. During the last few years a certain portion of the telegraphs in England have been managed and worked efficiently and economically by the royal engineers.

A telegraph troop, consisting of 10 officers, 40 non-commissioned officers and 300 men, might be formed and drafted from the companies of sappers and miners as proposed for the railway corps.

The whole should be employed by the telegraph department in time of peace, with a reserve to fill up war casualties, &c.

Lieutenant-Colonel J. Hills, R.E., Commanding Bombay Sappers and Miners.

On this subject it is all the more difficult to give a decided opinion, from the fact that the telegraph department in India has always been so practical and efficient; on the other hand, it is equally clear and decided that all the European authorities are against the employment of civilians under fire or in places where they would be exposed to an attack. In India we have had several minor campaigns, but have not been fairly tried or received a check sufficient to bring forth prominently the continuous hardship and danger of such a life before the civilian element. Hence I am of opinion that if a scheme such as handing over the entire telegraphic charge of a small State railway to the military element, such as a company of sappers and miners, can be carried into practice for a time as an experiment without great expense, such might be attempted, in order that, should circumstances arise as to cause a failure of the civil element, a reserve of the military would be available.

Beyond this minor precautionary measure, unless it proved financially a success, I should accept in India the employment of the Government telegraphic department to construct and maintain all lines up to as advanced a post as possible. It must however be kept in mind that the Indian army may have to be sent to positions and places where the civil element may not be so advantageously employed: hence a small nucleus, capable of expansion, of the military element should be kept up undoubtedly, but only a small one. At the same time many of the posts in the Government civil department might be granted to the older sappers on their being pensioned or permitted to exchange the military for the civil branch.

It is only in India with its peculiar disregard to engineer officers and their branch of the service, and the want of experience and knowledge of the importance of engineering operations which practically, though not openly, affect the success of all military campaigns, that such a question (2nd clause of question) could be asked and a reply requested. All matters of engineering details, all telegraphs, even communications in railways of "etappen," &c., should be directly under the control of the commanding engineer, who is the proper controller and director of all movements, and, in fact, the suggesting power. The slightest enquiry into the duties of the staff of any army would fully impress this on any military order. Unhappily, as I have before remarked, the duties of the commanding engineer officer has rarely been grasped by those in authority in India; in my experience his duties have been usurped and his authority curtailed by other members of the staff or command with results which were but little satisfactory to the progress of the army or to the thorough execution of the work. There has been scarcely a campaign of which I have heard the details or been present at, in which I could not, if need be, quote several forcible examples.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field
Force.

The Government telegraph department may well be entrusted with the construction and working of the line to the advanced depot, the sappers carrying on the communication to the front. Yes, I think the whole system from the base of operations should be under the control of the commanding royal engineer.

Lieutenant-Colonel D. Limond,
R.E.

The existing arrangement works very well, and should not, I consider, be interfered with. So far as to satisfy himself as to the efficiency of the arrangements made.

Lieutenant-Colonel W. H.
Barton, R.E.

I think the telegraph duties sketched out in the question fairly represent what the royal engineer officers and sappers should be capable of performing during a campaign. To enable them to do this with efficiency, a province should be told off (as is the case in England, *viz.*, that all south of the Thames) in which the royal engineer officers and sappers should work and maintain the telegraphs in peace, the European non-commissioned officers being chiefly employed in the office work, the Native sappers in the out-door repairs, &c.; also that sappers should construct a portion of every new line of telegraph which has to be made in India.

(b) It should.

Captain J. Dundas, R.E.

The system described in this question seems undoubtedly the proper one.

Captain W. H. Pierson, R.E.

In replying to this question, I may mention that I have had some eight years' experience in erecting and working telegraph lines in Persia with the assistance of royal engineer non-commissioned officers and of civilian clerks. Skilled workmen are not necessary to put up a telegraph line, and the speed at which it can be done is entirely dependent upon the amount of ordinary labor, of carriage, and of material available. For working the line, well-trained men are required, and professional clerks are more valuable than the comparatively inexperienced military telegraphists. On the ground, therefore, both of speed and of efficiency in working, the duty of constructing and maintaining the lines up to the head-quarters of the general in command should, as far as possible, be entrusted to the telegraph department, with its exceptional facilities for obtaining stores, large numbers of workmen, and skilled operators. The sapper telegraph company, limited as it must necessarily be in numbers, will be most usefully employed in rapidly laying down light field lines in the advance, where from exposure to attack, &c., civilian workmen could not be called upon to undertake the work. The telegraph officer in charge of the main communications would naturally be under the orders of the general in command, and of the commanding engineer as representing him.

Captain H. H. Cole, R.E.,
Executive Engineer.

Yes, certainly.

There should be one company specially for telegraphs with each *corps d'armée*, and of course under the commanding engineer.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

The reports of the general commanding the Peshawar Valley Field Force show that the field lines put up by the sappers worked well and went as fast as did the army. Nothing could have been better than the work of the telegraph company (the 6th of sappers). I refrain from offering an opinion on the merits of the civil department line beyond saying that the presence of civilians during the operations of war might hamper the general and his troops.

64. By what agency are the regulations relating to the interior economy of royal engineers and sappers and miners in India carried out?

Major-General F. R. Maunsell,
C.B., R.E.

I do not think there is any urgency for royal engineer regulations. Each officer has to look after himself.

Major-General A. Fraser, R.E.

The regulations relating to the interior economy of the royal engineers and sappers and miners in India are carried out through the adjutant general's office. I would strongly recommend the appointment of a deputy adjutant-general (who should be an officer of royal engineers) for this purpose, and in whose office the records spoken of in answer to 59 might be fitly kept and cared for.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's
Own" Sappers and Miners, Mad-
ras.

By the commandant, adjutant and quarter-master of the "Queen's Own" Sappers and Miners, and by the officers commanding companies; but royal engineers in the Public Works Department seem to be under no particular military control or discipline.

Colonel the Hon'ble C. J. Mer-
rivan, C.S.I., Acting Secretary to
the Government of Bombay, Pub-
lic Works Department.

In the Bombay presidency by the officer commanding sappers and miners.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sap-
pers and Miners.

As regards the interior economy of the royal engineers and sappers and miners, all that can be said is that it is in a very unsatisfactory condition. The system will be explained by describing—

1st.—The pay duties of the corps.

2nd.—The arrangements for stores, &c.

3rd.—The location of the corps.

The pay duties are carried on in an irregular manner.

The adjutant and superintendent of instruction also performs the duties of paymaster to the whole corps assembled at head-quarters, with the exception of the 43rd company, royal engineers. The officer commanding 43rd company, like officers commanding royal engineer companies all over the world, is responsible for the whole of the pay duties of his company wherever stationed. Similarly, wherever any company is detached from head-quarters, as for instance at present the Aden company, the torpedo company, and the second and fifth companies on service (four out of five companies), the officer commanding the company becomes entirely responsible for all the pay duties and keeps the accounts quite separate for the time they are away, corresponding direct with the presidency paymaster; whenever the company returns to head-quarters, the company accounts are absorbed into those of the head-quarter ones.

This system is unquestionably objectionable.

The adjutant and superintendent of instruction has already far more work than he can possibly do. To give him all the extra work of all the companies at head-quarters is only adding unnecessarily to his work, and the system by which the company officers have alternately at one time absolutely nothing whatever to do with their company accounts, while at head-quarters, where they have plenty of time to learn and supervise the system of accounts, and at another absolutely everything, being wholly and solely responsible while on detached duty or on service is manifestly wrong, for there, though his attention is called to a thousand other matters, he finds himself suddenly burdened with complicated accounts concerning which he knows nothing, and never having had any practice is utterly at sea. The result, moreover, is that by the time the company returns to head-quarters the accounts are in a muddle, and the time and labor of the adjutant wasted in unravelling the complications and getting passed the objectionable statements. There can be no possible reason, except an idea of saving the control office a little labor (that it does so practically, I do not believe), why the company officers, as is the case in all royal engineer companies at home and abroad, and as is also the case with all detached companies in India, should not be held always responsible and correspond direct with the presidency or other paymaster whether at head-quarters or detached. It is one of those incomprehensible mysteries difficult to solve and most objectionable in practice. A second source of great inconvenience is owing to the system of paying the European non-commissioned officers weekly and the Natives monthly; by this an extra set of accounts has to be kept up between the officer commanding 43rd company and the adjutant and paymaster, and these European non-commissioned officers, in place of being paid by their own company officers, are paid by an officer with whom they really have no connection at all. The accounts of a company are in India most complicated, and no one but he who has had for some months actual command of a detached company can thoroughly understand the complicated and ever-changing pay regulations.

The remedy proposed for the present unsatisfactory state of affairs is—

First, to organize the companies on exactly the same footing as the royal engineer companies are organized, *viz.*, each company to be independent as regards its accounts wherever it may be, and correspond direct with the presidency paymaster.

The pay of the head-quarters staff to be drawn in a special pay list by the adjutant in correspondence with the presidency paymaster. Head-quarter detail, such as hospital establishment, &c., to be attached to some of the companies for pay. I am aware that the pay department object in some ways to the arrangement I now propose, but on what grounds I am unable to ascertain; but I feel confident that any little (if any) extra work thrown upon that department will be more than compensated for by the greater correctness and despatch with which the pay accounts will be sent in from the companies.

* Not printed.

A set of proposed company muster rolls, general state, &c., is forwarded herewith marked M. R.*

As regards the second item, stores, the arrangements are equally unsatisfactory.

The quarter-master, who is also superintendent of park and train and interpreter, is under the present system responsible for the company equipment, even though the companies are scattered about all over the country.

Instead of having, as is done in the royal engineer companies, the officer commanding each company responsible for his arms and equipment, everything is put on the quartermaster, who thus becomes responsible for things he has never seen. The Aden company, for instance, draws its stores from the arsenal, but accounts for them to the quartermaster of the sappers and miners.

Another unsatisfactory arrangement is that the arms of the corps, instead of being numbered companies are numbered from one upwards all through the corps, and in consequence great confusion arises; for instance, when the two companies were sent to Malta and arrived there, their arms were exchanged for Martini-Henry rifles, which again on the return of these companies were sent into store and snider carbines issued.

The remedy for all this is to acknowledge what is accepted in all other armies the company of the sappers and miners as the unit and not the battalion or corps, and to make the officer commanding the company responsible for his arms, equipments, and everything connected with his company; and until this is freely acted upon, there will never be a thoroughly efficient service in India.

The third item, location. Some of the 34th company, Royal Engineers, are located about two miles from their work in New Jhansie; they have thus a long trot and tedious walk from their work at the most trying time of the day, 2 o'clock p.m. This is necessitated by the non-building on account of financial depression of the quarters necessary for these men at New Jhansie, where the remainder of the Europeans are located.

There is no European hospital at New Jhansie, and consequently the men have when sick to go to the royal artillery hospital at Kirkee.

There are no sheds for the corps or even company stores, no offices, nor proper accommodation for the adjutant and quartermaster.

Lieutenant-Colonel W. Hicbens,
Commanding Royal Engineers,
Southern Afghanistan Field
Force.

My replies to questions 58 and 59 contain all that I have to say upon this subject.

Lieutenant-Colonel W. H. Burton, R.E.

I have heard by the adjutant-general as regards the royal engineers; but I think more attention is required for the corps as a whole and for every individual officer. The adjutant-general in India is not so thoroughly acquainted with each royal engineer officer in India as is the deputy adjutant general, royal engineer, in London.

The commandant of the sappers and miners would be the chief agent in putting into force regulations regarding the sappers.

Captain J. Dundas, R.E.

Please see the answers to 58 and 59. There is at present a very imperfect agency and a want of interior economy. The appointment of a deputy adjutant-general for royal engineers would remedy this.

Captain H. H. Cole, R.E., Executive Engineer.

Through the adjutant general and the public works department.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

I do not feel competent to give an answer to this beyond saying that a company of sappers is well cared for; discipline is never allowed to relax; the records of pay, clothing, and stores are thoroughly kept, as also the rolls of the men. I commanded a sapper company for about eight years at Delhi, Agra, famine and fort works, in road-making in the Mohun Pass, Mussoorie, Chakrata, and lately in the Khyber Pass. I could make the men do anything, for I understand them and also their work; and if any one thinks that Natives are not observant and rather stupid, it is quite a mistake. Native soldiers generally, and sappers not less so, are very intelligent, and will never fail to respond to the call of duty if they be properly handled and fairly treated, whether it be at marching, working, or fighting.

65. In a military division or district, who is the officer (below the general) responsible for the care and preservation of defences?

Lieutenant-General C. W. Hutchinson, R.E., Inspector-General of Military Works.

No special rules for the maintenance and repairs of forts as distinct from those for other military buildings are in force; these works form part of the charge of the executive engineer in whose division they are situated.

But new rules in regard to the periodical inspection of forts, and the correction and custody of plans have lately been drafted, and are, it is believed, about to be issued, of which the main features will be that the general commanding the division in which any fort is situated, and under him the officer commanding the district, station, or fort, as he may direct, will be responsible for the condition of the fort. The senior royal artillery officer and the commanding royal engineer of the

division will each inspect the fort once in every year, and report to the general, the former on the armament, the latter on the defences and buildings; and these officers will subsequently accompany the general on his annual inspection. The general's annual report will be submitted to the quarter-master-general and to the Commander-in-Chief for orders.

A detailed plan, with sections, constantly corrected up to date, will be kept in the office of the executive engineer in whose division the fort is located.

Major-General F. R. Maunsell,
C.B., R.E.

I do not think that any system exists, or ever has existed, connecting the department in charge of works of any sort with the military authority on the spot. The departmental officer, military public works, I presume, is responsible for all military works.

Major-General A. Fraser, R.E.

The executive engineer is the officer who is primarily responsible for the care and preservation of the defences.

Colonel H. N. D. Prendergast,
R.E., Commandant "Queen's Own"
Sappers and Miners, Madras.

The superintending engineer, Public Works Department, an officer directly under the orders of Government in a civil department.

Colonel the Hon'ble C. J. Mer-
riman, C.S.I., Acting Secretary to
the Government of Bombay, Pub-
lic Works Department.

The executive engineer who is an officer of the Public Works Department under Government.

Lieutenant-Colonel R. de Bour-
bel, R.E., Consulting Engineer
to the Government of India for
Guaranteed Railways at Lucknow,
now on special duty in Biluchis-
tan.

The superior officer of the Public Works Department in charge of the military works. But this officer has no power to spend money on the maintenance of defences, unless money is previously granted for the purpose by Government.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sap-
pers and Miners.

There is no officer in a military capacity under the general (unless the executive engineer, who is often a civilian) who is responsible in a military sense for the care and preservation of defences and fortifications. In purely a civil sense the executive engineer, if he thought necessary, would budget for the repairs of any defences under his charge; this would be sanctioned by the superintending engineer, and the work executed without any particular reference to the military authorities.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field
Force.

The general has to communicate with an officer of the public works department, often a civil engineer.

Lieutenant-Colonel D. Limond,
R.E.

The superintending engineer of the command has to send in an annual report on the state of all forts within the limits of the same. He is responsible they are kept in repair, but not for defects in design or principle.

Lieutenant-Colonel W. H. Bur-
ton, R.E.

I do not know; but no officer can be said to be so responsible if the Government allows no regular annual sum for maintenance of existing works.

The senior royal engineer officer in a district should be charged with the duty of submitting, in conjunction with the senior royal artillery officer in that district, an annual statement of the fortification requirements of his district, as well as with the duty of executing such works of maintenance, &c.

Captain J. Daudas, R.E.

The officer commanding the fort is responsible to the general. But the executive engineer in charge is distinctly responsible to the Government in the matter. His responsibility in respect to all works and buildings in his charge has always been generally declared (see, for example, Public Works Code, edition 1870, Chapter III, ii, 39), and in respect to forts was specially enforced by an order in the Military Department, No. 110 of 8th January 1877, which called for a yearly report on their condition.

Draft rules for the annual inspection of forts, which will place this matter on a very clear footing, are now under consideration of Government in the Military Department.

Captain W. H. Pierson, R.E.

Under the present system, the executive engineer in charge, who may be a civilian or a Native, is the officer immediately responsible for the care and preservation of defences.

Captain H. H. Cole, R.E., Exe-
cutive Engineer.

The chief engineer is responsible for all buildings in the province, and the executive engineer takes the orders of the general; but no special attention is directed by executive engineers in military works to the condition of defences, excepting in the cases of such forts as Fort William, Allahabad, Gwalior, Agra, Delhi, Lahore, &c.

Captain W. T. Stuart, Inter-
preter and Quartermaster, Bengal
Sappers and Miners.

I am not in position to say. There are, I believe, *garrison engineers* at Fort William and Allahabad. I suspect that the defences are in most other places left to themselves. At Delhi some years ago when I was serving there, the garrison engineer was a civilian.

66. Please give your views as to the system under which purely military works (barracks and defences), instruction to the army in military engineering, telegraphy, signalling, &c., should be conducted, it being understood that it is impossible to keep up an excessive staff of engineer officers employed on minor duties, while at the same time it is necessary to provide for the requirements of war.

Lieutenant-General C. W. Hutchinson, R.E., Inspector-General of Military Works.

In the answers given to many of the preceding questions, my views in regard to several points connected with the construction and maintenance of barracks, fortifications, military roads, and other works affecting the wants of the troops in cantonments, have been expressed: but in replying to the present question, I will recapitulate and amplify these views.

I would premise by explaining that in the following paragraphs I urge no radical change in the system now in force; nor indeed do I advance views entirely new or original: the scheme briefly sketched below is only the natural outcome of the measures adopted in initiating the new system of military works in 1871, and since continued in organizing the new branch then created; and is indeed in its main features the ideal towards which those measures were always intentionally directed.

It will be observed that what I deprecate is any fundamental change of system, or any retrograde movement towards lessening the military character of the agency for carrying out public works connected with the army; and that what I recommend is an advance along the lines hitherto followed in developing the military works branch.

I. The duty of designing, constructing and maintaining all barrack buildings, all fortifications, military lines, of communications, cantonment water-works, barrack furniture, and other public works connected with the accommodation, &c., of troops to be entrusted to a military works branch of the public works department.

II. This branch being concerned only with the requirements of the army, to be distinct from the other civil branches of the public works department engaged on railways, canals, civil buildings and works of a provincial and local character; and although a branch of the public works department, to carry on its duties under the orders of the Commander-in-Chief and the military department.

III. Its members to be military men, as far as possible belonging to the corps of royal engineers or of sappers and miners: *all* the members of the superior (engineer) grades to be royal engineer officers. One important object of this restriction being to supply a more extended field for the employment of officers and men of the royal engineer corps in India under a proper military organization.

IV. The relative rank, pay, leave rules, &c., of the members of the military works branch to be exactly similar to those obtaining in other branches of the public works department; but in view to maintaining its distinct military character, the names of the several grades to be as follows:—

Commanding royal engineer, corresponding to superintending engineer.

Garrison engineer, corresponding to executive engineer.

Assistant garrison engineer, corresponding to assistant engineer.

The head of the branch to be designated, as at present, "Inspector-General of Military Works."

The duties and location of these officers will be noted below.

V. The budget allotment assigned by the Supreme Government for military works during the year to be placed at the disposal of the Commander-in-Chief to be expended on *bond fide* military works, within the sanctioned scale of accommodation for troops, and on buildings and works on approved standard designs, it being understood that the budget once framed and approved by the Government in the military department cannot be departed from without Government sanction, except within the limits permitted by the existing department public works rules in regard to "reappropriations."

VI. The distribution of this allotment to be effected under the arrangements now in force, except that the communication between the inspector-general of military works and the Commander-in-Chief and his other superior staff officers should be more direct in regard to the criticizing of the local cantonment committee reports, the selection of the works for insertion in the budget, and the proportionate allotment of funds.

VII. The budget once framed and approved by the Commander-in-Chief and by Government, the actual execution of the works to be carried out, as at present, under the direction of the inspector-general and in accordance with the usual department public works rules.

VIII. The organization of the staff of the military branch (being as above noted of a military character) to be more assimilated to that of the somewhat similar royal engineer department in England.

In England the head of the corps and of the engineer department is an officer of royal engineers designated "Inspector-General of Fortifications and Director of Works."

He is assisted at head-quarters by ten officers, *viz.*—

(1) A deputy adjutant-general in charge of the military discipline and duties of all royal engineer officers and men in the country.

(2) A deputy assistant adjutant-general.

(3) A deputy director of works for fortifications.

(4) Assistant do. do.

(5) Deputy director of works for barracks.

(6) Assistant do. do.

(7) do. do. do.

(8) Inspector of sub-marine mining defences.

(9) Assistant do. do.

(10) Aide-de-camp to inspector general.

IX. As my proposals are intended not merely to avoid any increase of establishments over those hitherto prevailing, but under present financial difficulties to effect a reduction to the limits recently

imposed, the head-quarters staff for Indian military works, to correspond with that above quoted, would be very much smaller and would stand as follows:—

The Inspector-General of Military Works to have the direction of both barracks and fortifications, and to be the recognized military head of the corps of royal engineers in the Bengal Presidency. To be aided at head-quarters by one of the authorized superintending engineers of the military works branch who should combine the duties of—

1. (a) *Deputy Adjutant General* for the charge of all questions of establishment, promotion, military and departmental, military discipline, and personal questions affecting officers and men of royal engineers in India.

(b) And those of *Deputy Director of Fortifications*, having charge of all questions relating to existing or proposed fortified posts in India, discharging the duties now exercised by the vice-president of the defence committee.

2. *Assistant Director of Fortifications*, exercising the duties of the present secretary of the defence committee, and giving help in both the above-mentioned branches of work.

3 & 4. *Two Assistant Directors for Barracks* and acting as general assistants to the inspector-general of military works.

All the appointments above detailed (excepting only that of deputy adjutant-general of royal engineers) are in existence, though under different designations, and in some instances on a somewhat different footing; but the creation of these appointments involves no excess either in the number or the salaries of officers, as provided in the reduced scales of establishment.

X. On the home establishments the officers (colonels and lieutenant-colonels) holding appointments corresponding to the superintending engineers of the military works branch are designated commanding royal engineers. The number of such charges in the United Kingdom is sixteen. The most complete arrangement, theoretically, would be to attach a commanding royal engineer to the staff of every general commanding a division or a district, and to make his charge over barracks, fortifications, &c., coterminous with the general's division or district; but at present the reduced scale of Indian public works establishments will allow of only four for the stations under charge of the inspector-general of military works.

These officers it is proposed to designate commanding royal engineers. Each commanding royal engineer will perform the duties of a public works department superintending engineer in regard to all military public works in his command; he will be a member of the staff of the general of the division to which he is attached, and will be his professional (engineer) adviser. He will command all the royal engineer officers and men in the division, and be responsible for their discipline, their posting, their employment, and their proper instruction; he will inspect all military buildings and forts within the division, acquire a knowledge of the topography and resources of the country within those limits, and be responsible that the plans of cantonments, forts, &c., are periodically corrected and are in safe custody.

XI. The actual execution of works, the construction of barracks, military roads, fortified posts, cantonment water-supply channels, and other military works, and the responsibility for their proper maintenance will be intrusted to royal engineer officers having the grade and pay of executive engineers of the public works department. These officers to have as a distinctive appellation the title of garrison engineers. Their duties (as well as their emoluments) will be as now those prescribed for executive engineers of the Public Works Departments, but they will belong also to the military staff of the cantonment in which their duties lie, and will be the professional (military engineer) advisers of the officer commanding in their stations or districts.

They will be under the command of the commanding royal engineer of the division, and will be assisted by subalterns of the royal engineers, designated assistant garrison engineers, and having the rank and pay of assistant engineers in the public works department.

XII. Thus the complete military works branch establishment of the Bengal presidency will consist, in its superior grades, of an inspector-general with his own head-quarters staff of commanding royal engineers on the staff of generals commanding divisions, of garrison engineers in charge of cantonments, forts, &c., and of assistant garrison engineers in charge of minor stations, parts of cantonments, or special works under the control of the garrison engineers; all these being officers of royal engineers, and all being attached to the military staff of the division, districts, stations or forts within which they are employed; all being bound to keep up their knowledge of drill and of military science and matters generally.

XIII. To this military works branch all officers of royal engineers on first arriving in India will be posted, being placed under the orders of a commanding royal engineer at the head-quarters of a division, to learn the native languages; the procedure of the department, and the nature of the duties of a royal engineer officer in India. Until an officer so posted to the military works branch is reported competent for regimental or departmental duty, he will draw only regimental pay. When he has passed the required tests, he can elect to join the corps of sappers and miners, the military works or some other branch of the public works or other department, as vacancies may arise or employment can be found for him.

XIV. The upper subordinate establishment of the military works branch to be composed, as far as possible, of non-commissioned officers and privates of royal engineers or of other regiments, after a course of instruction in the Roorkee College.

Their position, pay, and duties to be generally as prescribed for upper subordinates of the public works department.

XV. The lower subordinate establishment of the military works branch cannot have so distinctly a military character as the engineer or upper subordinate establishments. But, as far as is practicable, Native soldiers who have passed through the Roorkee College course as military sub-overseers will be employed. Should also the reserve system be adopted for the Native army, some of the sapper reserve men who were originally recruited from the skilled artisan classes, and who possessed the necessary qualifications for employment as sub-overseers, sub-surveyors, or head artificers, could be profitably utilized in such capacities in the lower subordinate establishments of the military works branch.

XVI. It will be observed that in a preceding paragraph (No. IX, 1 & IX 2) it is proposed that the duty of preparing projects for new fortifications and for remodelling existing forts, of inspecting such works, and in fine of considering all questions connected with their defences and armaments should be entrusted to two officers designated a deputy director and assistant director of fortifications, at the head-quarters office and under the orders of the inspector-general of military works. Such works manifestly form a portion of the charge of the inspector-general precisely as do barracks, water-supply schemes, military roads, &c. But having regard to the changes that have lately taken place in the sciences of fortification and gunnery, and the advances that these sciences are now making, this particular department of military works requires a special agency; and consequently it is proposed to set apart a portion of the establishment under the orders of the inspector-general expressly to this line of duty; and the smallest possible agency is the one proposed: an agency which could be at need, and at the discretion of the inspector-general of military works, supplemented by the addition of one, two or more royal engineer subaltern officers to assist in drawing the designs.

At present the vice-president and the secretary of the defence committee discharge the duties assigned to the deputy and assistant director of works for fortifications; and if, under the pressure of financial difficulties, that committee, as at present constituted, should cease to exist, the records, plans, models, &c., collected by the committee could be kept intact, and the work, as far as possible, continued in the head-quarters office of the inspector-general.

The advantages enjoyed by the existing committee of consultations on defence schemes by a mixed body of officers, naval, royal artillery, royal engineers, ordnance, quarter-master general's department, &c., need not be lost under the new arrangement, as an *ex-officio* committee costing nothing to Government, and meeting only on rare occasions, and when the members were in the ordinary course of duty present at head-quarters could be formed for the preliminary consideration of important projects, or for the final criticism of these projects when elaborated in the inspector-general's office. Such an *ex-officio* committee would consist of the Commander-in-Chief as President, with the inspectors-general of military works, of ordnance, and of artillery, the adjutant-general, quarter-master general, and consulting naval officer to Government as members, the cases being prepared and laid before them by the deputy and assistant directors of fortification.

XVII. The preceding paragraphs explain my views as to the system under which purely military works, barracks, and defences should be conducted; and on these subjects, with which my official duties are directly and intimately connected, I have felt warranted in expressing my views confidently and at some length.

XVIII. In regard however to the question of instruction of the army in military engineering, telegraphy, and signalling, as this work does not appear to me to fall within the province of the military works branch, I do not feel justified in offering a decided opinion.

Judging, however, from the analogy of English practice, this duty would seem to me to pertain to the establishment at the head-quarters of the corps of sappers and miners, where instruction in these subjects forms a part of the regular training of the men of the corps, and where officers are specially appointed to the duty of instructors in these branches of engineering.

At Roorkee facilities exist for the execution of sapping and mining, bridge-making and pontooning, telegraphy and signalling in the presence of the necessary plant and material, of officers specially qualified and detailed for the duty of instructing, and in the presence of a large body of soldiers trained to these particular classes of work.

As it has been the custom at Chatham to send officers and detachments from line regiments to share in field work training, and to take part in siege operations, so at Roorkee officers and detachments from regiments in cantonments at no great distance from that station could be sent into camp there during the cold weather to join the sappers in all descriptions of field engineering operations, pontooning, signalling, &c., and on return to their cantonments the officers and non-commissioned officers should be able to take the place of instructors to the rest of the men of their own regiments. In regard to signalling officers, classes could also be formed at some hill station during the hot season, as has been done on former occasions, to learn signalling under the teaching of a qualified officer of royal engineers detailed for this duty from the head-quarters of the corps of sappers and miners.

Major-General F. R. Maunsell,
C.B., R.E.

This embraces rather a wide scope. I think that barracks should not be constructed without some reference to military position, but I believe that the details of construction, repairs, &c., is well and carefully arranged for, and carried out by the public works department; and I hardly think myself competent to attempt (without time to consider the bearings of the case) to sketch out any new system as better.

In the matter of instruction to the army in military engineering, telegraphy, signalling, &c., I have somewhat more experience.

In military engineering there is absolutely no instruction: *vide* answer to question 61. I would make one business of this.

In telegraphy and signalling some instruction does go on, but not so systematically as it should for military efficiency. For the training in telegraphy, I think that there should be a minimum number of men kept up to the mark, also a minimum employed in civil offices, the others being required to keep up their practice; also that certificates should be given, and the men not employed, but who have certificates, should be required to test their fitness and to practice. Two classes of certificates should be given—one for mere signalling, and the other for those fit to have charge of an office. I submitted this to the director general of civil telegraphs about August last year, but he did not agree with me. I consider the breakdown as to number of men wanting during the campaign was due to want of system in this matter. For army signalling the existing arrangements admit of some improvement in details. I consider that a very material addition of system and time for training alone

will render this department thoroughly efficient. No men are of use in a telegraph office, civil or military, without a thorough training, and when deficiency exists in this in any men who have to be employed, they have then and there to be ground down to it, being useless for some time. The same for visual or army signalling. Some instances occur of regiments working very well; but it must always be very well, *considering* these men want the training necessary to efficiency, and time, as in telegraphy, is spent in training them at the very time when it can least be spared.

The practical Americans appreciating this maintain corps and utilize it to keep up communication for certain departments of State business; and this constant training keeps them up to the mark. I do not suggest the formation of such a corps, but I think that a responsible officer should exercise a personal inspection of the system, and that there should be a system of training the men of each division together. Also fixed rules for work in the field, similar to those for military field telegraph offices; indeed, I think the system of visual should be intimately connected with the field telegraph.

Major-General A. Fraser, R.E.

Purely military works, such as barracks, defences, &c., should be carried out by the military works branch of the public works department; but this branch should be reorganized. It should be a military service composed entirely of military engineers; the subordinates with it to be all soldiers, trained at the military engineering school. The officers should be classed as commanding engineers, engineers, and assistant engineers, with suitable staff salaries, working up to an inspector-general in the military department. The pay should be regulated by what they would get in the field, and should have no reference to the amounts hitherto paid in the public works department. It should be a purely military service, involving no addition or subtraction of pay while on field service. Instruction to the army in military engineering, telegraphy, signalling, &c., should be conducted by the school of military engineering established at the sapper head-quarters.

Additional remarks by MAJOR-GENERAL A. FRASER, R.E.

The remarks with reference to questions 35 to 44 inclusive apply to a greater or less extent to the whole of the army. It may not be advisable, even with our improved communications and appliances, to reduce the total of European troops in the employ of the Government of India; but I imagine the organization of the Indian army as regards its British-born troops must always follow that of the English army; and a vast saving of expense and increase of efficiency might be obtained by maintaining our reserves of European troops in England instead of in India. We have now rather over 61,000 English troops in this country; and taking the strength in round numbers at 60,000, I would maintain only 40,000 in India. Of these, 20,000 might be located in the hills in the summer; and in the winter parties of these might be marched to the plains for camps of exercise or practice in field evolutions, carrying out relief as between the hills and the plains at the same time, and 20,000 should be distributed at the various centres and strategic points over the country. For the remaining 20,000 I would simply increase the standing army in England by that number of men, and station them at home; their cost, at English rates, to be defrayed by the Indian Government, on the understanding that their services should be at the entire disposal of this Government, whenever they were required. As artillery and cavalry cannot be quartered in the hills, I would give a larger proportion of these arms at home than of infantry. The relief of the Indian service would rather depend on the terms of service of the troops; but my own view is that the service should involve five years in India in the hills and five years in the plains, with an inter-relief every second or third year.

On the occurrence of political disturbance, whether in Europe or in Asia, this body of 20,000 men could within a week or two be landed in Egypt or Cyprus, where they would guard our communications and be in readiness for any emergency until the British Government should be in a position to replace them by other troops, when they would, if required, move on to India. Owing to the great and increasing extent of our railway communications, and our consequent power of rapid concentration, we can do more now with one regiment than could be done in the old days with three; and with 20,000 men in the plains we could, if the cantonments were judiciously selected, with reference to our sea base, our internal communications, and our frontier requirements, maintain a firm grasp on the country; while we should have 20,000 men in the hills, who would be quite free to move at any time on any threatened point, and the 20,000 in England could be moved either to Kurrachee, Bombay, Madras, Calcutta, or Rangoon to strengthen our base.

The gain by this arrangement in money, though very large, would not be the only advantage. Improvement in the health of the troops and diminished mortality would be a result to be confidently looked for; and the advantage of having a large body of men ready at a moment's notice to occupy Egypt would, while in no way weakening our position in Asia, immensely strengthen it with reference to European complications. The improvements in communications between England and India and the magnificent sea transport service owned by this Government, have now rendered this plan perfectly feasible; and I have no hesitation in advocating it, more especially as it is quite as important to be certain of security to our communication with England as it is to hold our frontier intact, or secure ourselves from internal rebellion.

For the Native army I would introduce the reserve system in the same way that I have already recommended for the sappers; but the active reserve of the regular army should be employed on the ordinary police duties of the country, the second or veteran reserve taking their place when the active reserve is called out for service or required for training. But the Native army cannot be reduced below the numbers required for protection of our frontier, and to carry on the regular guard and escort duties required in time of peace, without undue strain on the men. It is a waste of power, life, and money to

employ European soldiers on these latter duties when Natives can be got, and the strength of the portion of the Native army to be present at all times with the colors should be fixed with reference to these requirements.

I must apologize for these sketchy answers to the important questions which have been put to me by the Army Organization Commission; but I only received the paper of questions on the 28th August, and my time is too much occupied to enable me to go into these matters so fully as I could have wished before the 3rd September. At the same time the above modes of reducing the cost of our army have long been in my mind, while I have considered for the last ten years that, with our arsenals and strategical centres in the plains secure, and with bodies of Europeans in healthy condition in the hills and at home, movable at pleasure to any threatened points, we should be stronger than we should be with a larger body of troops, distributed as at present in open cantonments not protected with forts all over the country in comparatively unhealthy localities.

Moreover, I am clearly of opinion that any large disruption of present organization will be, as it is apparently proving to be at home, very uncertain in its results; and though it may be considered by some that it is not desirable to have the police composed of the same body as the troops, yet I think it possible that the police would become a safer body than they are now if they had this reserved connection with the army, with prospects of ease in the second reserve, and of pension; while the economy both in the military and civil departments will be manifest. The Government would not, moreover, have to fear an idle body in almost the prime of life loafing about the bazaars with little pay and nothing to do but to seek mischief in concert with neighbouring regiments. The civil department should be bound to take a military reserve man as a policeman, paying the difference between the army retaining-fee and the ordinary pay of the police of the district, while the reserve soldier should be bound to serve in the police if required as a condition of his enlistment. This system might be open to the objection that in case of hostilities the first reserve men might be called out for active service at the time when police might be more than ever necessary, while the second reserve would be less efficient than those called to the front; but it would be probable in such a case that only a small part of the country would be affected, and active employment for the reserves seems to me safer than an idle body of men.

Finally, I would add that in suggesting the proportion of one-third of the British infantry in the hills, one-third in the plains, and one-third at home, I only put down what I think on imperfect data would be about proper. But there is no reason why the troops at home should not be reduced to one-sixth with the colors and one-sixth in reserve, provided the one-sixth, or say 10,000 men, would be sufficient for purposes of relief in time of peace.

Colonel H. N. D. Prendergast,
R. S., Commandant "Queen's Own"
Sappers and Miners, Madras.

Should be conducted by engineer officers. They should not be called on to repair barracks; but fortifications should be touched by no one else.

An engineer officer of rank of brigadier-general should be appointed as inspector of instruction in military engineering; and he should regulate the instruction of troops in military engineering throughout the country. But officers commanding regiments, assisted when convenient by garrison instructors and engineer officers, should instruct their own men under the guidance and inspection of the inspector-general.

The inspector-general should be an officer in the confidence of the Commander-in-Chief, and should be possessed of tact and common sense. The course of engineering should vary at different stations; the conditions being very different at Ali Musjid from those at Thayetmyo, for instance.

I would advocate central schools of telegraphy and military signalling. The school for military signalling at Bangalore is an excellent model. It is managed by an officer of the Madras infantry of exceptional merit (Major Begbie), who has devoted time and talent to the improvement of the system and instruments. Consequently the system and instruments used at Bangalore in 1873 are being gradually introduced into the system adopted at the Horse Guards. I would advocate a similar central school of telegraphy under another officer at Bangalore for the Madras presidency, at which officers and men could be taught the construction of telegraph lines and the practice of telegraphy. Passed signallers could be kept in practice by short lines at military cantonments; for instance, to connect the fractions of Secunderabad, the head-quarters of regiments at Madras, the Mount, Poonomallee, and Palaveram. Soldier-signallers might be employed on State railways. The inspector-general might report on the centres of instruction in telegraphy and army-signalling amongst other duties, and, if necessary, on the classes of garrison instruction and fortifications.

Colonel the Hon'ble C. J. Merri-
man, C.S.I., Acting Secretary to
the Government of Bombay, Pub-
lic Works Department.

Barracks and defences should, in my opinion, be conducted as at present by officers of the public works department under Government; in the case of defences, special military engineers being selected for the duty. I understand that instruction to the army in telegraphy and signalling is now imparted by an engineer officer specially appointed for the purpose; and I would advocate the appointment of a special engineer officer as instructor of field-works under the officer commanding the sappers and miners.

Lieutenant-Colonel B. deBour-
bel, R. S., Consulting Engineer to
the Government of India for Gua-
ranteed Railways at Lucknow,
now on special duty in Beluchis-
tan.

The existing system in India under which royal engineer officers and non-commissioned officers are employed on public works generally in time of peace would provide an efficient means of imparting practical instruction to the army in the construction of barracks, defences, hutting troops, opening out roads, buildings, bridges, surveying, &c., &c., if working parties of officers and soldiers were habitually detailed for this purpose in every military cantonment. To employ royal engineers in trying to instil theoretical instruction into the ordinary soldier would be a waste of time and money. Even good men so taught would find themselves, when in the field, at a loss how to put into practice what they

had learnt in theory. Of the two methods—practical or theoretical instruction—the former is undoubtedly the most economical to the State, as employing the minimum number of officers requisite, making use of their services to the utmost, and at the same time, besides rendering the men practical workers, utilizing their labor on the public service. The more practical officers and men can become in time of peace, the more efficient and useful will they be found in time of war; while the royal engineer, in exercising the civil side of his profession during peace, himself improves in practical knowledge, and gains an aptitude and readiness in organizing large bodies of laborers, collecting materials, and executing works on a large scale which can be turned to good account when required in time of war. I have heard it said that officers and men so trained may become too independent and addicted to criticize the orders of a military superior. As a rule, it will be found that, whereas an ignorant man will obey orders mechanically and without caring to reason on its use, the educated man will equally obey orders from a strong sense of his military duty, and at the same time does so intelligently and with some appreciation of its purport. He takes a pride in his military profession, and knows well the fundamental rule of obedience to orders.

Of course, if a military superior should in any technical matter give orders or act on his own judgment without previously consulting others possessing special knowledge, mistakes may sometimes occur, and inconvenience of the kind objected to may arise. But this will rarely happen. To give up the practical training and improvement of officers and soldiers for the sake of maintaining a blind obedience to orders would be a very narrow view of the subject.

Lieutenant-Colonel A. M. Lang,
R.E.

Military public works (*e.g.*, barrack building, fortifications, military roads, drainage, and water-supply of cantonments, and supply of barrack furniture) should be executed, as now, by a special branch of the public works department termed a "military works branch."

The following changes, however, should be introduced:—

This special branch, though remaining an integral part of the public works department, subject to the same rules as regards procedure, general promotion, pay, &c. (so that interchanges between it and other branches of the department public works would be feasible), should be composed almost entirely of military men (a few civilians for special duties, which would not bring them into contact with the troops being retained if thought desirable). It should be attached to the military department of Government, as its duties pertain almost exclusively to the army and its requirements.

Its organization should be more military than at present, its members forming part of the military staff of divisions and cantonments.

Its head would be the inspector-general of military works, who would be a member of the staff of the Commander-in-Chief and his adviser in all matters concerned with accommodation for troops, fortifications, &c.

As a head-quarters staff for the inspector-general, would be officers discharging the duties of deputy and assistant directors of fortifications, deputy and assistant directors for barracks, deputy and assistant adjutant-general, and personal assistants or aides-de-camp.

In England the inspector-general is aided by ten officers in position corresponding to those above noted.

It would be possible with the reduced scale of public works department establishments in India to have the following head-quarters staff:—

- (1) Deputy director of fortifications and deputy adjutant-general, royal engineers.
- (2) Assistant deputy director of fortifications, and assistant deputy adjutant-general, royal engineers.
- (3) Assistant directors for barracks.
- (4) Personal assistant to inspector-general.

This staff would entail no increase on the present (reduced) scale of establishment.

The control of all military works as above defined in the several military divisions would be vested in commanding royal engineers (at present styled superintending engineers).

There should be a commanding royal engineer on the staff of every general commanding a division or district. But the reduced scale will not allow of this arrangement in its entirety; and in some cases the charge of commanding royal engineers will extend over the commands of two generals.

The commanding royal engineer will discharge as at present all the duties of a department public works superintending engineer. He will be a member of the general's staff, and be his adviser in matters of military engineering. He will command all royal engineer officers and men in his command; arrange for the employment and instruction of royal engineer subalterns posted to his command on arrival in India. He will be specially responsible for the defences of all forts in his command, and for the custody and correctness of the plans of these forts. He will keep up his knowledge of drill and military matters generally by occasional attendance at parades and camps of exercise.

Garrison engineers.—The actual execution of all military works will be in the charge of royal engineer officers of the grade of executive engineers, who, to mark more clearly in the department public works the distinction between military and civil executive engineers, should be styled garrison engineers.

The garrison engineer will be a member of the military staff of the cantonment in which are his head-quarters, and will occasionally attend military parades and camps of exercise, and will thus keep up his knowledge of drill and all military matters. He will carry on his engineering works under the

rules of the public works department and under the orders of the commanding royal engineers of his military command.

Assistant garrison engineers.—In charge of sub-divisions of cantonments, of forts, roads, &c.; will be employed as assistants to the garrison engineer, who will be royal engineer subaltern, having the rank and pay of assistant engineer, and discharging their duties under the department public works rules for this grade.

Royal engineer subalterns (attached).—All subalterns of royal engineers on landing in India will be in the first instance attached to the military works branch to learn the languages, departmental procedure, &c. While so attached, they will be under the orders of the commanding royal engineer of the military command in which they are stationed, and will be available for such duties as may be required from them by the commanding royal engineer or the inspector-general of military works.

The upper and lower subordinate grades will be, as now, a part of the public works department establishment, and subject to the same rules as regards duties, pay, and promotions; but they will be, as far as possible, composed of military men, European and Native. If the reserve system be adopted for the sappers and miners, a field of employment for duly qualified men of the sapper reserve will be found in the ranks of the lower subordinate establishment.

All questions connected with fortifications pertain to the office of the inspector-general of military works, as much as do those dealing with barracks, military roads, drainage and water-supply of cantonments, barracks, fittings and furniture, &c.

The construction of new, and improvement and maintenance of existing, forts, batteries, magazines, gun emplacements, and all details of defences, are carried out by the officers of the military works branch.

Lately, however, all cases connected with the above classes of work have been referred to a defence committee, with the view of ensuring their consideration as part of one comprehensive scheme, and as based on one uniform system, by a body of officers, who, owing to their special and continuous application to this particular branch of military science, might be expected to be experts in it, to a degree unattainable by officers engaged in a multiplicity of other duties.

As, however, this defence committee, as at present constituted, will be dissolved on the 31st December next, the agency for this work must be reorganized, as the work itself to a greater or less extent must always form part of the duties of the military works branch.

The most obvious and least expensive mode of effecting this reorganization will be to assign the charge of elaborating new designs, criticizing and correcting the estimates of local officers, preparing and issuing type plans, and keeping the records and models of the present committee, the plans of forts, throughout the country, &c., to certain members of the central staff of the inspector-general's office.

Assimilating the Indian to the English system, these officers would discharge the duties of deputy and assistant directors of works for fortifications, and would be not in addition to, but part of, the reduced sanctioned scale of military works establishment. Thus their appointment would cause no extra cost to Government, and they could be employed on other duties of the central office of the military works branch as might be required. The advantage, however, of devoting one or two officers continuously to this special line of work, and thus securing for it the services of really qualified experts, would be as well secured as under the present system.

A standing defence commission, composed solely of *ex-officio* members, and thus costing nothing to Government, might be appointed to meet at rare intervals for the initiation of new schemes, or for considering projects under preparation or completed. These schemes and projects would be presented to the commission by the special officers above named, and would be by them worked out under the orders of the inspector-general of military works. If (as proposed) all royal engineer subalterns landing in India be in the first instance posted to the military works branch, officers for drawing all plans connected with these projects would be available when and to the extent required, and could be so employed without extra cost to Government.

The Defence Commission might be composed of the Commander-in-Chief as president, and the inspectors-general of military works, ordnance, and artillery, the consulting naval officer to Government, the adjutant-general, and quarter-master-general as members.

This system should ensure the consideration of all matters of defence by the senior officers of all branches of the service concerned with such questions, and at no extra cost to Government.

The duty of instructing the officers and men of the line in military engineering should devolve on officers attached to the head-quarters of sappers and miners, as stated in answer to question 61. The regular departmental duties of the military works branch, especially on the reduced scale of establishment, would be too heavy to enable them to devote more than a very small amount of attention to this work; for which, moreover, much greater facilities exist at Roorkee, Kirkee, and Bangalore.

Lieutenant-Colonel J. Hills,
R.E., Commanding Bombay Sappers and Miners.

It would tend, I believe, to make the public works department more popular among military engineers were the purely military centres placed under them in a more military manner than they are at present, and somewhat similar to the home system. I have no means of calculating the cost of such an arrangement; but it appears that were the ranks of the officers, royal engineers, properly regulated, and military foremen of works in place of assistant engineers at small stations, the cost would not be more than at present. But whatever is done, I am strongly of opinion that any system which leaves the general officer absolutely without an adviser in military engineering matters is wrong. India is the only country in the world where such a state of affairs exists.

As stated before, I do not think it profitable or advisable to instruct the army generally in military engineering, only a portion, see paragraph (b), question 61; from forty to sixty in each regiment; but I do consider it absolutely necessary to accustom each soldier to the use of the pick and the shovel, no more no less.

In telegraph and signalling teaching, I am in unison, as far as I can ascertain, with all officers who have had experience in the subject, in considering that the regimental system of signalling and telegraphy will never be a practical success; and I would prefer to see the American system of a corps of trained and constantly practised signallers kept up. The present system is cheaper possibly, as no signaller receives any pay (which is of itself an anomaly contrary to all political economy and hope of happy result); but it cannot be but viewed as a makeshift unsatisfactory, and one by which uniformity of action cannot be obtained. Were a body of telegraphists and signallers kept up, say in telegraph troops, they might be utilized on State works, and might after a certain number of years' service be passed into the civil branch of Government.

These men would on service be a good reserve to fall back upon, and obviate somewhat the objection, being trained soldiers, to the employment of civilians in keeping up the line of telegraph, &c., near the front line of operations and within the radius of the theatre of war, which objection has been made so prominent in all continental armies, and even in our own in the Crimea.

Moreover, by placing openings in the Government civil branches within reach of the men of the sappers, a great inducement would be held out for a higher class of tradesmen entering the ranks than at present exists in this presidency, where labor is so highly paid.

Lieutenant-Colonel W. Hichens,
Commanding Royal Engineers,
Southern Afghanistan Field
Force.

This question is fully answered in my reply 61; and if my recommendation with regard to the carrying out of military works be followed, the means of instruction to the army in military engineering, telegraphy, and signalling will be at hand at the head-quarters for every division.

In conclusion, I may remark that, with regard to the general constitution and organization of the royal engineers in this country, I think no better model can be copied than that of the royal engineers at home. The duties and responsibilities of the commanding royal engineers, an officer on the staff of each division, are very clearly laid down in the Queen's Regulations, section 5, paragraph 49; and I would submit that any deviation from these regulations, framed, as I believe them to be, with extraordinary wisdom, guided by the experience of the British army for a long series of years at home, in the Colonies and in the field, is likely to result, and in the case of the royal engineers in my opinion has resulted, in confusion, extravagance, and inefficiency.

Lieutenant-Colonel D. Limond,
R.E.

I consider the staff of the military works branch, public works department, should be placed under the orders of His Excellency the Commander-in-Chief. The officers would continue to perform the duties they at present carry out, coupled with those referred to in the reply to question 61. I see no necessity for any other change.

Instruction in telegraphy and signalling, being of a special character, should continue to be given as at present at Roorkee.

Finally, in time of war, a subordinate engineering staff, independent of those non-commissioned officers attached to the sappers, is very necessary. Under such circumstances, men are detached from the various branches of the public works department. They should be furnished solely from the military works branch, and no man should in my opinion be permitted to become the entire civilian—the characteristic of the great majority.

Lieutenant-Colonel W. H.
Burton, R.E.

If the charge of works in military cantonments and forts in India is kept separate from all other works, and the number of superintending engineers is only say eight, the extent of country to be under the supervision and control of a superintending engineer or a commanding royal engineers would be enormous,* and such that his supervision and control over the works would be comparatively worthless. A commanding royal engineer's charge in England, for instance, would be on an average such that he would be within 25 miles of any barrack or work. The commanding royal engineer at Portsmouth has in his command all barracks and military roads and buildings between Christ Church and Chichester and in the Isle of Wight; also the barracks at Winchester. In India it would be of course necessary, if only sixty royal engineers' districts were maintained, to make each much larger. I would name the Oudh cantonments, civil buildings, and roads as forming a not too extensive† range of duties for a commanding royal engineer in India.

Again, to confine the duties of a commanding royal engineer to military works, pure and simple, is objectionable on the following grounds:—

First.—There will be in many stations two or more Government engineers competing for labor and materials in the same market.

Secondly.—There will be two or more office establishments, foremen of works and groups of subordinates, not fully occupied on local works, but more than fully occupied in travelling about to the same but distant out-stations.

Thirdly.—If the present local and provincial system is maintained, whereby much ignorance of what exists or is done in other parts of India prevails, that ignorance will be still further stereotyped; but the wider the experience our engineers obtain, the better will be their efficiency.

Fourthly.—It will be impossible to give adequate employment to a commanding royal engineer within reasonable distance of his ordinary residence by withholding from his charge that of the provincial works and of irrigation works other than irrigation revenue business.

* If the cantonments, &c., between Calcutta and Peshawar were to be in charge of, say, five commanding royal engineers, the extent of country over which the charge of each would range would average 100,000 square miles.

† About 20,000 square miles.

Fifthly.—By their existing in any district only one engineering authority for a period, the responsibility for the works done in that period will be clearly defined under all circumstances.

Conclusion.—For the carrying out of the above proposals, and to summarize, I would propose to appoint—

(a) An inspector-general of engineers, a general, royal engineers; to hold office for five years, to be the sole medium of communication between the Governor-General in Council and the local Governments on all engineering questions. This officer to be assisted by deputies, one for barracks (colonel, R.E.), fortifications (colonel or lieutenant-colonel, R.E.), irrigation works (colonel or lieutenant-colonel, R.E. or C.E.), railway (colonel or lieutenant-colonel, R.E. or C.E.), provincial works (colonel or lieutenant-colonel, R.E. or C.E.).

(b) A deputy adjutant-general (lieutenant-colonel, R.E.), royal engineers; to maintain, under the orders of His Excellency the Commander-in-Chief, the proper performance of royal engineer duties in India *by roster*, and so to abolish the system by which particular narrow duties and particular offices are left in the hands of particular officers during the major portion of their service.

(c) An under-secretary to Government for royal engineer department; to exercise a similar control, under the orders of the inspector-general of engineers of the civil engineers' services and roster of duties and stations.

(d) A secretary to each local Government and Administration; to represent to the Supreme Government works required, and its opinion of the manner in which works are executed within its jurisdiction.

These officers (c) and (d) to be either royal engineers or civil engineers. If the former, a colonel or lieutenant-colonel; if the latter, superintending engineers.

(e) A commanding royal engineer or superintending engineer of each of sixty royal engineer districts (forty-five of former, fifteen of latter). Finally, I think it a matter of regret that the amalgamation of the royal engineers and of late Indian engineers was not carried out in 1861, as it was originally proposed. To narrow or localize the experience of engineers is to limit the usefulness of their service. To extend their knowledge of how engineer works are carried on out of India and throughout India is to multiply the value of their services one hundredfold.

Captain J. Dundas, R.E.

This question involves very different matters, which have indeed no necessary connection with each other in my opinion. The instruction of the army in telegraphy may best be carried out (as I believe is now done) by employing soldiers in civil telegraph offices in time of peace.

Instruction in signalling might usually be given regimentally as soon as a knowledge of the subject becomes common among officers, who might attend classes of instruction.

As to military engineering, see answer 61 (b).

The designing of defensive works is undoubtedly work which can only be done by a competent engineer. But there is no such special character in barrack works. Provided that care is taken that the engineer in charge of all forts is a royal engineer, and not a civilian, it does not seem that there is anything in the construction or maintenance of military works which could not be entrusted to the public works department without any special regulation. Commanding officers, however, would probably prefer having a royal engineer in charge of their works, which moreover do not differ much from similar works in other parts of the world, and are thus more easily taken charge of than other Indian public works by an officer whose service has not previously been in India. The present organization of the military works branch of the public works department is thus very convenient, while it is undoubtedly efficient.

Captain W. H. Piorson, R.E.

The charge of purely military works (barracks and defences) is one of the legitimate duties of officers of royal engineers. The corps has been fixed at its present strength on this understanding, and not only (as implied in question No. 9) to provide officers for the sappers and miners. The department of military works should be removed from

the immediate control of a civil department of Government and placed under the direction of the Commander-in-Chief, subject of course to the necessary financial restrictions. It should be officered entirely by royal engineers, and all young officers on first coming to India should be attached to it for the reasons given in my answer to question No. 9. In other respects the establishment should be retained at the scale to which it has recently been reduced, which could not further be cut down without imperilling its efficiency. It would be advisable to alter the present title of superintending engineer to that of commanding royal engineer, and to term the executive and assistant engineers, garrison and assistant garrison engineers.

As already suggested (question No. 58), the inspector-general of military works would be the head of the corps in India, and his deputy would also exercise the functions of a deputy adjutant-general of royal engineers, assuming that an additional appointment of this nature could not be created.

In reorganizing the military works branch, the opportunity should be taken of providing for a systematic treatment of fortification questions in future, especially as there is much important work in this direction to be undertaken whenever the state of the finances will permit, the defences of India having hitherto had little attention paid to them.

It is casting no reflection on the professional attainments of artillery and engineer officers in general, to say that but few of them have the means or opportunity of becoming conversant with the ever-changing requirements for the service of heavy ordnance, and with the details of construction of forts and batteries intended to receive new guns. Such details belong to a very special branch of

artillery and engineering, in which it would be impracticable and quite unnecessary that every officer should be an expert. It is also desirable that certain fixed principles should be adopted for the defences of India; and this cannot be effected if each separate project is prepared by local officers, who moreover are very liable to overestimate the importance of the particular scheme on which they are engaged. These considerations point to the advisability, first, of placing all the defences of India, irrespective of the presidency in which they may be, under the charge of the inspector-general of military works; and secondly, of forming out of the available staff of officers a special fortification branch, as in England. These officers should prepare all projects for forts and batteries, and their designs should be criticized and revised by a standing *ex-officio* defence committee, which might with advantage consist of the Commander-in-Chief as president, with the quartermaster-general, the consulting naval officer, and the inspectors-general of military works, of artillery, and of ordnance as members. To these might also be added the deputy adjutants-general of artillery and of engineers.

Suggestions as to the instruction of the army in military engineering have already been submitted in my reply to question No. 61 (b). Under this system, and with the military duty recommended in reply to question No. 62, much additional work and responsibility will be thrown upon the already hard-worked garrison engineers, whose staff pay should in consequence be kept at least at its present level. It should be, however, noted that these officers, while most fully employed in peace time, would be receiving the best of all possible training for service in the field; and in war time they could be replaced as required by officers temporarily withdrawn from civil employment. Under such conditions, it could not be said that an excessive staff of engineer officers was kept up employed on minor duties, and at the same time a very effective provision would be made for the requirements of war.

Captain H. H. Cole, B.E., Executive Engineer.

There ought to be with the Commander-in-Chief in India an inspector-general of fortifications and a deputy adjutant-general, to whom the corps of royal engineers can look generally. With each commander of army-corps there should be a commanding engineer, with officers under him at important stations for barracks, defences, and instruction to troops. Officers commanding the brigades of sappers and miners should be professionally under commanding engineers attached to army-corps head-quarters.

Captain W. T. Stuart, Interpreter and Quartermaster, Bengal Sappers and Miners.

The system approved of in England should be modified to suit India. The subject requires (possibly) more care and thought than it gets; for it should never be forgotten that we hold India, both inside and on the frontier, by the sword.

In conclusion, I respectfully trust that nothing I have said will be found objectionable. The remarks have been made in a hurry amidst a press of work. They are from a practical soldier of nearly 30 years' experience; and if they give the Hon'ble Commission on Army Organization the least information on the important subject in question, the object of the writer, *viz.*, the better organization of the army in India, will have been gained.

Remarks by LIEUT.-COL. D. R. YOUNG, Officiating Controller of Military Accounts, Bombay.

Taking the budget estimate for current year, and dividing the grand total by the number of private sappers in each presidency, the cost of every private will be as follows:—

Bengal about	...	...	...	...	415
Madras „	...	...	...	...	400
Bombay „	...	...	...	...	560

It may be said that this difference is owing to Bombay being weighted by a staff equal to that for the large numbers of men employed in Bengal and Madras, and that the skeleton company of engineers presses unduly on Bombay. Still, making every allowance for such circumstances, I think that enquiry is needed when it is remembered that the budget estimate for working pay for the Madras sappers containing 1,050 privates amounts only to Rs. 25,000, whereas in Bombay with only 400 privates it is Rs. 23,040. I think that it would be well to change the present system of working pay to a fixed rate for each sapper per month. This could be made on a class scale, according to the skill of the man. At present working pay is looked on, as far as my experience goes, as part and parcel of the monthly pay of a sapper, and has therefore come, I think, to be viewed as his right, to attain which duties of all kinds are considered as giving a title. This system leads to friction in audit, unnecessary paper work, complication in accounts, and very questionable economy.

F.

NATIVE CAVALRY.

1. As it is obviously impossible to maintain an army always on a war footing, what should be the strength of a Native cavalry regiment on a peace establishment?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I consider that a Native cavalry regiment, whether on war or peace footing, should not consist of less than four squadrons; each squadron to be of the present strength.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

They cannot, in my opinion, be reduced below their present strength, viz., 13 Native officers, 5½ non-commissioned officers, and 331 sowars, with 6 trumpeters, which is barely sufficient to meet the requirements of the service as it is.

Colonel Hugh Gough, Com-
mandant 12th Bengal Cavalry.

I do not think a Native cavalry regiment could safely be reduced below its former peace establishment of 6 troops of 6½ sabres each, with the ordinary complement of Native and non-commissioned officers.

It is necessary to maintain a regiment up to the above efficient strength, so as to form a thoroughly reliable nucleus, when it should suddenly be made up to war strength by the augmentation of its ranks, by the raising of recruits as in the late war, or the calling in of reserves, the latter of whom could scarcely be expected to be fully up to the mark at first, either in drill or general efficiency.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

A Native cavalry regiment in my opinion should, on a peace establishment, consist of—

4 resaldars.
4 resaidars.
1 woordie-major.
8 jemadars.
8 kote duffadars.
6½ duffadars.
8 trumpeters.
512 sowars.

609 in all Native ranks.

Major O. Barnes, Officiating
Commandant 10th (Duke of
Cambridge's Own) Bengal Lancers.

The great difficulty in forming a reserve or having a peace and war footing in Native cavalry is the *sillidar* system.

If men while in the reserve are to keep up their horses, the expense will be enormous. If they are not to keep up their horses, the difficulty of remounting them will be very great when called in for war. They will have to ride other men's horses when called in for training in peace; and, in justice, they should have the price paid for their horses returned to them on being drafted into the reserve, and should again pay it up on joining for service or training. All this is exceedingly inconvenient, if not impossible; and I think a different system than the present should be organized. The plan I propose, so as to admit of reserve, I will give hereafter. I consider that the peace strength of a Native cavalry regiment should be as under—

PEACE ESTABLISHMENT.		<i>Non-commissioned officers.</i>	
<i>British officers.</i>		1 duffadar major.	
1 commanding officer		1 quartermaster duffadar.	
1 second-in-command		6 kote duffadars.	
3 squadron commanders		19 duffadars.	
3 squadron subalterns		21 naib duffadars.	
1 adjutant		—	48 horses.
1 staff officer (quartermaster, paymaster, and accountant)		—	
1 medical officer		6 trumpeters.	6 horses.
<i>Native officers.</i>		270 sowars.	216 "
6 resaldars.			283 "
1 woordie-major.			
6 jemadars.		6 camel sowars	6 camels.
—		1 salutri	
13	13 horses.	9 farriers	} dismantled in peace time.
—		—	
		236	

Establishments will be separately considered.

Regarding the above establishment, it will be noticed that I have added a 2nd-in-command, a staff officer for pay, accounts, &c., and one subaltern. My reasons for this are as under.

It is objectionable that the 2nd-in-command should also command a squadron. If he has to take command of a wing detached, and his own squadron is not a part of it, he has to leave his squadron: the same if he has to command the regiment on the commanding officer's going away temporarily. Besides, the number of officers is too small, and it should be increased somehow; and this is a good way of doing it. I consider also that every squadron should have two British officers.

The accounts officer should be a non-combatant officer. I found on service that the accounts, returns, and pay work took valuable officers away from their proper work. The work suffered; and so did the regiment. The Native officers I propose no real change in. Why one officer commanding a troop should be called a resaldar and another a resaidar, I never could see. I think all should be called resaldars. The men always give them the rank, and so, I think, should the authorities.

The additions and change in the non-commissioned officers I think a saving and an improvement. A man who becomes a duffadar, and who feels he never can be a Native officer, is a great encumbrance in a regiment. He keeps clear of anything which will bring about his reduction, but he shows no zeal, never improves, and is quite useless. With two grades of non-commissioned officers, he would have an incentive to work on.

Moreover, the system would be the same as in the British army and in the Native infantry.

In the non-commissioned officers' grades I have added 1 duffadar major, 1 quartermaster duffadar, 1 duffadar, and 3 naib duffadars, as I propose that each troop should only consist of three sections in peace. The number of non-commissioned officers will be so reduced, that the duffadar major and quartermaster duffadars are, I consider, absolutely necessary. One duffadar and 3 naibs are also necessary for drill instruction; and these should always remain with the depôt on the corps proceeding on service.

Captain M. G. Gerard, 2nd
Central India Horse.

Nine hundred of all ranks, two of present regiments being formed into a single one. The present pay of sowars being only calculated for peace, and insufficient to bear the wear and tear of a serious campaign, they are *financially* already on a peace footing. The difference betwixt the two establishments should not, on account of remounts and other difficulties, exceed 25 per cent. Austria and Russia, with the reserve system, power to requisition all private horses, and the cheapest armies of Europe, now maintain their cavalry on permanent war footing; the former six squadrons of 900 horses, and the latter four of 600. A reduction of 100 sowars would cripple a regiment, but only save Government Rs. 2,800 monthly.

Captain A. H. S. Neill, Central
India Horse.

About two-thirds of present establishment.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

I consider that the present strength is sufficient for a peace establishment, *viz.*—

Resaldars	...	...	...	3
Resaidars	...	...	...	3
Woodie-major	...	...	...	1
Jemadars	...	...	...	6
Duffadars	...	...	...	54
Trumpeters	...	...	...	6
Sowars	...	...	...	420
			Total	493

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

The total of Native ranks in a Punjab cavalry regiment is 493 against 444 in the Bengal cavalry, and this was no more than were required for the heavy duties on the former frontier, and also to admit of furlough being open all the year round to a complete troop at a time.

Supposing the new frontier duty requirements to be the same as the old, all regiments liable to serve thereon should be of the present strength of Punjab cavalry. So I cannot see that any reductions for a peace footing are possible.

But I offer as a mere suggestion, demanding more mature consideration than I have given it, that all cavalry regiments be first raised to 493 of all Native ranks, so that any regiment may at any time be ready to serve on the frontier, and that then a complete troop per regiment be always on furlough, and, whilst so, receive only three-fourths of their full pay: good conduct, order of merit, and such like pay not to be included in the three-fourths calculation. Short leave for two months to be granted, as now, on full pay. Bengal cavalry have not this boon of furlough all the year round, so that the reduction of pay might, perhaps, be attached to the grant thereof. With Punjab cavalry, who enjoy the boon on full pay already, the reduction might commence after the entire regiment has rejoined from their next tour of furlough, that is, with the second grant of furlough to the regiment after its return to India.

Colonel J. Blair, r.c., Com-
mandant 1st Bombay Lancers.

The strength of a cavalry regiment should never be under 450 sabres, as it takes at least twelve months to turn out a recruit ready for the ranks.

Lieutenant-Colonel C. La-
Touche, Commandant Poona
Horse.

The strength of a Native cavalry regiment on a peace footing should depend very much on the number of stations at which cavalry are required for purposes of garrison duty, and the number of regiments available for the performance of such duty. Any hard-and-fast principle, irrespective of such considerations, would lead to different results in different parts of the country. The peace establishment of the Bombay cavalry regiments could not now, in my opinion, be reduced without detriment to the public service, in consequence of the great reduction that has taken place in this presidency of late years, no fewer than six regiments having been disbanded since 1862. There are now only seven regiments of Bombay cavalry. Three of

these are permanently quartered in Sind, and the remaining four regiments have to garrison Poona, Sirur, Neemuch, Nusseerabad, Deesa, Rajkot, and, up to twelve months ago, Khandesh in addition. Detachments have also during the last few years been stationed at Baroda, Sholapur, and Kaladgi.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

1 resaldar major	} Total 15.	
1 wordie major (resaldar)		
1 quartermaster (resaldar)		
4 resaldars for squadrons		
4 resaldars		} for troops
4 jemadars		
1 kote duffadar-major		} Total 627 sabres.
1 farrier-major		
1 trumpet-major		
8 kote duffadars		
30 duffadars		
30 naiks		
8 farriers		
8 trumpeters		
540 sowars		

Major A. R. Heyland, 1st Bombay Light Cavalry.

Two squadrons (mounted) complete in all respects (on full pay).

9 Native officers, including Native adjutant.
1 kote duffadar-major.
1 farrier-major.
1 quartermaster duffadar.
4 kote duffadars.
20 duffadars.
4 trumpeters.
20 naiks.
266 privates.

326 Natives and 326 horses.

One reserve squadron (dismounted, on half-dismounted pay).

4 Native officers.
2 kote duffadars.
10 duffadars.
2 trumpeters.
10 naiks.
133 privates.

161 Natives.

437 Natives and 326 horses.

2. What should be the strength of a Native cavalry regiment on a war establishment?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

Vide answer 1.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

Raise the strength by 96 men, making a total of 430 sowars.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

A regiment of the strength I have stated should be increased in time of war by 20 sabres per troop, keeping the same complement of non-commissioned officers.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

On a war establishment its strength should remain the same; but when sent on active service its place in garrison should be filled by calling out for garrison duty the affiliated reserve regiment of its district, thus at once doubling the numbers under arms.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

The war strength should be raised to the following:—

British Officers.

As in answer 1, but 1 subaltern extra to take charge of the depôt.

Native Officers.

1 resaldar } in addition; to join the depôt.

1 jemadar }
Non-Commissioned Officers and Staff.

1 kote duffadar } extra; to join the depôt.

1 trumpeter

2 farriers

Non-Commissioned Officers for Service Troops.

6 duffadars.
12 naib duffadars.
174 sowars.
3 farriers.

All recruits should join the depôt, not one going on service.

Note.—I consider that all Native officers, all non-commissioned officers, and trumpeters should have a horse each. Eighty per cent. of the men should be mounted in peace time, 90 per cent. in war.

Captain N. G. Gerard, 2nd Central India Horse.

One thousand to 1,200, according to requirements. What with recruits and remounts at first, and sick, &c., subsequently, an effective of 900 would be kept up.

Captain A. H. S. Neill, Central India Horse.

As at present.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

For a war establishment I propose an increase of sixty sowars as sanctioned during the late augmentation; a proper proportion of non-commissioned officers should be added, say six duffadars. No increase of Native officers required, as the extra men would be posted to the different troops.

The war establishment would be—

Resaldars	...	...	...	3
Resaidars	...	...	...	3
Woodie major	...	...	...	1
Jemadars	...	...	...	6
Duffadars	...	...	...	60
Trumpeters	...	...	...	6
Sowars	...	...	...	480

Total ... 559

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

The furlough men recalled and the entire regiment available for active service, by its depôt and all its detachments right up to the front being taken by its own reserve men: see answer 25.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

Strength should be 560 sabres, including Native officers.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

The war establishment should be sufficiently in excess of the peace establishment to permit of the regiment taking the field at its full strength. After making due allowance for the sick unfit, recruits and others whom it would be necessary to leave behind, 20 per cent. in excess of peace establishment, would probably provide for such an arrangement.

Lieutenant-Colonel J. H. P. Macdonald, Commanding 3rd Sind Horse.

Same as in answer 1, with the addition of 200 sowars.

Major A. R. Heyland, 1st Bombay Light Cavalry.

The full strength of men and horses as in present establishment. In three squadrons. Total 487 Natives of all ranks and 487 horses.

3. What should be the number of squadrons per regiment?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

Vide answer 1.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

Three sufficient for all practical purposes.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

For a regiment of the above strength, I would retain three squadrons as at present.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

The number of squadrons should be 4, that number being for all purposes preferable to 3. If regiments were composed of 4 instead of 3 squadrons, the command and adjutant's and various other allowances and expenses of one out of every four regiments would be saved, without any diminution of strength.

Major O. Farnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I see no reason why the number of squadrons should be altered. The expense of the change would be great, and would not be justified by any increased efficiency.

Captain M. G. Gerard, 2nd Central India Horse.

Six—four of which would form regiment for service, and two depôt, garrisons, &c.

Captain A. H. S. Neill, Central India Horse.

Three squadrons per regiment for war, and two for peace establishment.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

The cavalry regulations provide for the instruction in drill of regiments of four squadrons, but by the constitution of cavalry regiments, there are only three squadron commanders and three squadron officers and three squadrons. This appears to me good, and I would not advocate any change.

What with outposts and other duties, a regiment has never more than sufficient men to form three squadrons on parade. Four squadrons are too much for the voice of the commandant to reach when the regiment is in motion; and if ever the regiment is strong enough to parade four squadrons, the squadron officers could act as squadron commanders either on parade or service.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

As at present.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

Three squadrons as at present, but in time of war four squadrons. A depôt of 50 sabres would have to be left behind. It would be necessary to augment the regiment at once by 80 odd sabres, as this could not be carried out at once; it would be necessary to resort to the same measure as was carried out when the regiment was ordered on service to Malta by attaching a full troop from another regiment; this was found to answer admirably. The regiment giving this troop could enlist the number of extra sabres, drill and train them, and forward them to the regiment on service to fill up the casualties.

Lieutenant-Colonel C. La-
Touche, Commandant Poona
Horse.

For the existing strength I consider three squadrons the proper proportion, each squadron forming a command sufficiently strong to fully occupy the time of the commander. If four squadrons were formed, I would have a fourth squadron commander instead of the infantry system of wings. I consider one squadron of existing strength quite sufficient for one officer to look after, and I would prefer having the commanders independent of each other.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.
Major A. R. Heyland, 1st
Lombay Light Cavalry.

Four.

Replied to in answers Nos. 1 and 2, viz.,—

2 effective squadrons
1 reserve dismounted squadron } in peace,
3 effective squadrons on a war footing,
or on ditto,

as proposed in answer No. 5. Two regiments brought together for service in the field.

4 effective squadrons.

2 depôt (reserve) squadrons, which would become effective as fast as remounts were obtained and broken in.

4. What should be the number of European officers per regiment, and how distributed?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

There should be a commanding officer, a 2nd-in-command, one squadron commander for each squadron, one subaltern, and adjutant and doctor—nine officers in all.

Colonel C. J. S. Gough, 6th
Bengal Cavalry.

The present number is barely sufficient with all present. I would recommend an additional squadron officer.

Colonel Hugh Gough, Com-
mandant 12th Bengal Cavalry.

There should be at least—

1 commandant.
1 adjutant.
2 British officers for each squadron, viz.,—
1 commander
and
1 subaltern.

I consider that at least the above complement of officers should accompany a regiment on service.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

The number of European officers should be as follows:—

1 lieutenant-colonel commanding.
1 major 2nd-in-command.
5 captains, of whom 4 would command squadrons, while one would be appointed to command the reserve of the regiment.
8 subalterns, of whom 1 would be adjutant of the regiment, 1 adjutant of the reserve, 1 quartermaster of the regiment, 4 attached to the regiment, 1 attached to the reserve—making a total of 15 European officers.

In the event of the regiment being ordered on service, the lieutenant-colonel, major, 4 captains and 6 subalterns, or 12 officers in all, would accompany it, leaving 1 captain, the adjutant of reserves, and 1 subaltern to take charge of the reserve in case it should be called out for garrison duty.

Have been answered in answer 1.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

Captain M. G. Gerard, 2nd Central India Horse.

Fifteen combatants (six squadrons); 1 commandant, 1 adjutant, 1 assistant adjutant, 6 squadron commanders, 6 squadron subalterns.

This gives two permanent European officers per squadron, and saves Rs. 800 a month on present pay of officers for six squadrons. The assistant adjutant (on Rs. 200 staff) would in peace act as quartermaster or adjutant of detached wing and adjutant of depôt in war. All six-month vacancies should be filled up.

Captain A. H. S. Neill, Central India Horse.

Not less in proportion than at present. The work of the European officer has increased much since the present organization was established. Musketry, signalling, and pioneering have all been introduced since then, and now the European officer has as much as he can do. Some of this work might certainly be thrown more on the Native troop leaders by reducing returns, &c., to a minimum.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Everyone must agree that the more European officers there are the better; but as the expense is increased in proportion, we must consider what is the fewest number we can do with consistent with efficiency; and I think to have a squadron commander and a squadron officer permanently to each squadron is as good an arrangement as could be, provided two or three attached officers are posted to take the place of any squadron officer that may be on leave, sick, or officiating in a higher grade.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Ten : 1 commandant.
2 adjutant and quartermaster.
3 squadron commanders.
3 squadron officers.
1 medical officer.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

1 commandant.
3 squadron commanders.
3 squadron officers.
1 adjutant.
1 quartermaster and officer in charge of pioneers.
1 surgeon.

Total ... 10

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

One commander and one subaltern for each squadron. Under existing circumstances this is quite impossible, owing to garrison instruction signalling, veterinary school, riding school, and other such like duties which take officers away from the regiment. I think this might be remedied by having more subalterns. There ought, in my opinion, to be a squadron officer and an attached subaltern to each squadron besides the commander.

Lieutenant-Colonel J. H. P. Maccolinson, Commanding 3rd Sind Horse.

1 commandant.
4 squadron commanders.
2 squadron subalterns.
1 adjutant.
1 medical officer.

Major A. R. Heyland, 1st Bombay Light Cavalry.

1 commandant.
1 adjutant and ridingmaster.
1 quartermaster and paymaster.
2 squadron commanders.
2 squadron officers.
1 medical officer.

Total ... 8

5. Do you consider that regiments of Native cavalry could be united for purposes of administration?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I do not think that regiments of Native cavalry should be united for administration.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No, impracticable, unless regiments were made local like the Central India Horse, which is not desirable for very many reasons.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

No, not advantageously.

There are doubtless certain advantages in the linked system (by which I understand the question), especially in the assistance one corps could afford to its sister regiment in time of emergency, by immediately filling up its ranks with old and trained soldiers, and also in peace times, by help in recruiting, should the one regiment be stationed in the district they would both come from. But I do not think the advantages of the linked system would counterbalance the disadvantages. I allude especially to the want of *esprit de corps* which would inevitably ensue from a system by which the men are liable to be transferred from one regiment to another at any time.

Native soldiers, and especially those in the Native cavalry, enlist in a regiment with a feeling that it is to be their *home* during their service.

From father to son, men enlist in the same regiment; they get attached to it and to their officers; and I think that the fact of introducing a system by which men could not possibly retain this strong feeling of *esprit de corps* and clanship as it were would be prejudicial to the interests of the service.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I do not think that for administrative purposes regiments could be united.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

No, I think not. I see nothing whatever advantageous in it, but a good deal detrimental. I think all regiments would suffer by having the commanding officers away from them: reference of matters to a distance, which should be settled on the spot, is subversive of discipline, and to be avoided.

Captain M. G. Gerard, 2nd Central India Horse.

Yes, as above stated, by retaining the present number of squadrons and halving the number of regiments. The system to be essentially a squadron one, and squadron commanders to be entrusted with far more responsibility, and subject to the commandant's interference with the enlistment, training, and promotion of their men. In fact, to give full liberty of action, and judge by the results if the officer were fit for his position. It would increase interest in work, and lead to a wholesome rivalry. The selection of service and depot squadrons being left to the commandant would prove a great incentive.

A wing would generally be in another cantonment, and should be of three or two squadrons according to requirements, not necessarily half the regiment. They should relieve each other by squadrons annually.

The service strength above advocated giving 800 men for 4 squadrons sounds unwieldy; but considering the number of detachments, casualties, and duties of Native cavalry, four squadrons of 50 files would seldom parade.

Captain A. H. S. Neill, Central India Horse.

They might be similar somewhat to the Central India Horse. Take, for instance, two regiments of two squadrons brigaded together. Complement of officers might be as follows:—

	Staff pay.
	Rs.
1 commandant as brigadier	800
2 2nd-in-command and squadron commanders, each	500
2 squadron commanders	210
2 adjutants	250
2 squadron officers	150
2 resaldar-majors.	
6 resaldars.	
2 woodie-majors.	
8 jemadars.	

In case of war a regiment of three full squadrons would be fit for immediate service, officered by 1 commandant, 1 2nd-in-command, 2 squadron commanders, 1 adjutant, and 2 squadron officers, with full complement of Native officers. The 4th squadron, composed of the cripples of both regiments, would form a depot under the 2nd-in-command and an adjutant.

I am not quite sure what is meant by this question.

I think it would be an excellent arrangement to have an inspector general of cavalry; for now, as a rule, cavalry regiments are annually inspected by general officers, who, never having served in that branch, are not acquainted with the system and interior economy of regiments.

I think the amalgamation of an infantry and cavalry corps like the Guides, or two cavalry regiments like the Central India Horse, is good, for it is economical, and there would be greater *esprit de corps*; but it would necessitate their always being together, and only a portion of the

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

army could be thus constituted. Four corps of the description of the Guides might be on this frontier, one at each of the stations of Kohat, Bunnoo, Dera Ismail Khan, and Dera Ghazi Khan.

The pay of four commandants would thus be saved to Government, and they might relieve one another periodically. Commandants of these corps might receive Rs. 200 per mensem extra.

The rest of the force to consist of single regiments.

I don't see why this system should not be adopted in the Bengal army, where we might have a dozen such corps.

They would never be separated to garrison single corps stations, except as a very temporary measure, and the command would be sought after and considered a prize for our smartest commandants.

It would also give a large number of officers an insight into the working of both branches of the service, and tend to their greater efficiency.

Colonel T. G. Kennedy, 2nd
Panjab Cavalry.

I presume the plan of the Central India Horse is here referred to. To adopt this generally would be to deprive the army of a great and legitimate prize, and would, in the event of a separation of regiments on service or otherwise, be exacting the work of a commandant for the pay of a 2nd-in-command.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

I think it could be made to answer very well, provided the system in the different regiments were the same.

Lieutenant-Colonel C. La-
Touche, Commandant Poona
Horse.

I consider that one regiment, -if properly looked after, is quite sufficient to occupy the time and attention of one commanding officer. The system of having one commandant for two or three regiments, though it may answer in special corps like the Central India Horse, is, in my opinion, most unadvisable as a general measure of army reform, and would create a great deal of friction. Such a system prevailed some years ago in the Sind Horse, but it must be remembered that in those days Sind was a newly annexed country, and that the upper portion was in a most disturbed state. It was necessary, under such circumstances, to trust everything to one man, and to give him almost absolute powers. He nominated his own friends, and naturally selected such men as he personally liked. He had practically complete control over the appointing of officers for his regiment, and as complete power to get rid of anyone who did not suit him. Personal ties, therefore, and prospects of extraordinary rapid promotions kept in check such influences which would otherwise inevitably have made themselves felt. Young men of a very few years' service were placed in comparatively prominent position which stimulated their zeal and energy to the utmost. To apply such a system to the whole army would, according to my judgment, be a mistake, from the want of the special circumstances which have made it suitable to special cases. Furthermore, to extend too much the sphere of influence of one commanding officer would tend to limit the chances of progress and development, and things would be apt very much to run in a groove; whereas by the maintenance of the present system of having a commanding officer to each regiment, such tendencies would at least be reduced to a minimum. It would, moreover, have a very prejudicial effect on the zeal and energy of regimental officers to feel that, in spite of the slow promotion now prevailing, their prospects were to be still further slighted by uniting two or three regiments under one colonel commandant. An officer who is nominally in command of a regiment should, in my opinion, be in reality a commandant, and there should be no one between him and the brigadier commanding the station.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

Yes. To maintain the larger numbers in the regiment on the peace establishment as proposed by me, and yet reduce expenditure without the loss of efficiency, I would propose two of these being linked under one commandant. The second regiment as it were being commanded by the senior squadron commander on parade or when detached, but in all drill, interior economy, dress and discipline, being entirely under the commandant. In addition to the numbers laid down in my former answer, I would propose to have a depôt squadron of 200 sowars who would be recruits. The object of this would be to increase the regiment ordered on service to its war footing.

The regiment remaining at the depôt would at once furnish the required number of men and horses, and would receive from the depôt squadron such recruits as men fit for the ranks, these vacancies in the depôt squadron being filled up by enlistments. In this way the second regiment would act as a feeder to the one on service, and would fill up from time to time the casualties both in men and horses of killed, sick, and disabled, and would in the meantime be receiving periodical batches of named recruits from the depôt squadron. It would not be necessary to give the depôt squadron horses (i.e., Assamees) during peace (but in time

of war I would have likewise half of them mounted), as they could learn their mounted drill on the horses of the two regiments. I have fixed the war establishment at the smallest number, as I do not think any cavalry regiment should be unable to place 600 sabres in the fighting line any time it may be called upon, and 200 is not a very large allowance in sick, guards, escorts, and other duties falling to the lot of cavalry on service. Indeed, during this campaign I have seldom had less, and often more away.

All the European and Native officers and even non-commissioned officers should be in one list, and liable to be transferred from one portion of the regiment, as considered advisable by the commandant either for promotion or any other reason. I think it would be well to have a fixed dépôt or head-quarters for the two regiments, where they should return after an absence of three years, each in its turn moving to new stations. They should, however, still remain under the control of the commandant, and no change of any description should be allowed to be introduced without his sanction. With this in view, he should be allowed to inspect the absent regiment annually. This would ensure a thorough inspection by an officer in every way acquainted with each detail.

The above arrangement while causing a saving would greatly increase the efficiency, I think, of the regiments.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Yes, while on a war footing only. I would recommend two regiments of two squadrons each being for the time considered and kept as one of four squadrons, and the surplus officers available by reduction of one commandant, one adjutant, and one quartermaster employed with the two reserve or dépôt squadrons, which should be brought together, remounts purchased and broke in.

6. And the officers borne on one regimental list for promotion ?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I would not advise officers to be borne on one regimental list for promotion.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No; promotion should go, as far as possible, regimentally; but due regard should be had to superior merit or services. It should be remembered that many of our best regiments have been made what they are by men so selected. Any dead-level system of promotion is apt to lead to a dull and hopeless method of doing service when one man is considered as good as another.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

Were regiments united, as proposed in the previous question, the principle of placing all the officers on one list for promotion might be very advantageously applied, and would probably accelerate promotion.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

It would be advantageous if the officers of two regiments composed of the same classes were borne on one list for promotion.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

No; I think the present system is better. Officers should know their men, and this will be impossible if they are to be changed from one corps to another. Promotions in regiments *ordinarily* I think highly desirable; but there are cases when it should be otherwise.

Captain M. G. Gerard, 2nd Central India Horse.

No; the irregular system can only be efficient by rigid adherence to selection. With so few you can afford no indifferent officers, in responsible posts more especially. A seniority list tempered by selection might be theoretically good, but practically a mere roster. Furlough, staff, and other vacancies must also be temporarily filled from somewhere.

Captain A. H. S. Neill, Central India Horse.

If squadrons were more independent, as advocated, the abilities of different officers would be easier contrasted, and the transfer of a commandant from another regiment would not affect the interior economy.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Yes; the officers to be borne on one roll, and promotion to go by seniority in the force or brigade as it were. The officers in the course of their service would thus become acquainted with the men of both corps.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I don't see what is to be gained by this. In the staff corps they get promoted after a certain number of years, and are given appointments by selection. If cavalry officers were borne on a separate list, they would have to be promoted in the same way.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

Vide answer 5.

The officers of the 1st, 2nd, 3rd, and Poona Horse should be borne on one list for purposes of promotion. The three Sind Horse regiments to have a list of their own.

Lieutenant-Colonel C. La Touche,
Commandant Poona Horse.

All promotion should go in regiments, and officers should not be transferred on any account from one corps to another merely to satisfy the claims of army rank. I consider it of vital importance in a Native regiment that the men should know their European officers and trust them, and that the latter should take an interest in the well-being of their men. If an officer knows he may be at any moment transferred from one corps to another, or that an officer from another regiment may be brought in his own corps over his head, it is quite impossible he can take a keen interest in his regiment and enter thoroughly with heart and soul into all that concerns its welfare. Many years of comradeship form a strong tie between officers and men in any army; but in the case of Native troops this is especially the case; and in my opinion any changes that may be made in army organization should be based on the system of regimental promotion.

Lieutenant-Colonel J. H. P. Malcolmsen, Commanding 3rd Sind Horse.

Yes.

Major A. B. Heyland, 1st Bombay Light Cavalry.

Certainly not. Were this done, officers being transferred from one regiment to another would lose that knowledge of their men, and the men of their officers, which is so very essential in any regiment, and more especially in a cavalry regiment; moreover, officers and men would lose much interest in their work, and efficiency seriously impaired.

7. Do you consider that there should be a fixed depôt or head-quarters for the regiment at which it should be stationed after a tour of service elsewhere?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I do not consider that there should be a fixed depôt for a regiment at which it should be stationed after a tour of service elsewhere.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

This might be advantageous if regiments were all composed of one class from one district; but from a *political* point of view, it would probably be considered objectionable and give rise to a doubt, lest, in some local popular disturbance, the regiment might unite with the people, or refuse to act against them if called on.

Colonel Hugh Gough, Commandant, 12th Bengal Cavalry.

No; this measure would, in my opinion, approach too nearly to the system of localization—a measure to be avoided both on political and military grounds.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

In my opinion it would be advisable for the regiment of the first line to be permanently quartered during peace in its own district, while always liable to be sent elsewhere according to the exigencies of the service. The soldiery of each district would thus be isolated; and if disaffection should arise in any particular locality, it could be easily repressed by employing forces from other parts or of other classes. The greatly improved circumstances of localized troops, and the consequent increase of contentment would, however, render the growth of disaffection very unlikely.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I consider that Government will secure better men and more willing soldiers (if that is possible) by having all corps local corps, *i.e.*, with a permanent head-quarters. This is a matter I have often discussed with intelligent Native officers and men. The feeling is almost universally in favor of permanent head-quarters and comfortable houses for men and their families.

Captain M. G. Gerard, 2nd Central India Horse.

Yes, drawing recruits from *anywhere* not necessarily from that one district. There are certain objections, but these advantages—

1st.—Being cheaper for the men, it is equivalent to increased pay.

2nd.—It is very popular, in proof. In 2nd Central India Horse in last two years 23 and 33 pensioners passed medical board for whose vacancies 26 and 37 recruits presented themselves *within 24 hours*. All had come down on chance from 300 to 600 miles, and all had the price of their assamis (Rs. 300 about).

3rd.—Grain funds can be established: *vide* reply No. 39.

4th.—Better lines and stables can be built regimentally to increase health and comfort of the men; and the money therein invested being refunded on discharge, it adds to each man's stake in the regiment and his loss in event of mutiny.

5th.—Far from feeling monotony, Natives are averse to change for its own sake.

Captain A. H. S. Neill, Central India Horse.

Yes; under this system there should be fixed head-quarters, and regiments should be localized in particular districts.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

This system would make the service very popular. We should get the best men of that district into our ranks. The men would be more loyal. Their regiment and their homes would be synonymous terms. Sick men or men recalled from leave would not have to travel great distances at Government expense; and altogether the advantages would be very great.

In good recruiting districts, such as Amritsar and Lahore, several regiments might have their depôts there.

The families and private property of the regiment away would be in their villages, and could not be interfered with by the men of the regiment occupying the lines, which is the fear with Goorkhas, who, being an alien race, have not their villages and relations round about to look after their families left behind, who have to be accommodated in the lines.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

Such would be advantageous to Government and to the soldier in saving the cost of periodical reliefs; but there is the possible harm of too long and intimate association of a regiment with its surroundings. Moreover, a soldier, as any other man, is all the better for moving about and seeing and being seen and acquiring some knowledge of the people and their ways of more than one district. For instance, the Sikhs and Hindustanis of my regiment could get on in most matters with Afghans on this expedition; whilst those classes in regiments that had not served on the frontier were helpless without an interpreter.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

Each regiment should have fixed head-quarters and to which it should return after its tour of service; it answers well in the Sind and Poona Horse regiments, as the men have no expenses on moving their families from station to station. In the 1st, 2nd and 3rd regiments, family men, as a rule, are invariably hard pushed, after a long march, for good two years after their arrival at a new station. In Sind, Government have erected pendols for the unmarried men of the Sind and Biluch regiments; these men have no deductions in the way of line repairs to pay; consequently, at the end of ten years or so, they are well off and able to marry and settle down comfortably.

Lieutenant-Colonel C. La-
Touche, Commandant Poona
Horse.

I am an advocate for permanent head-quarters, the services of a regiment being of course available for duty elsewhere when the interests of the State may demand it. Such has been the case with my own regiment since it was raised in 1817. The arguments in favor of such a system appear to me as follows:—

- 1st.—The regimental head-quarters form the home of the regiment; the men bring their families with them and make themselves comfortable; and when they are sent away on service or detachment duty, they leave their families behind with the depôt, knowing that they will be well taken care of during their absence, and they are furthermore saved the expense of sending them back to their own villages.
- 2nd.—The system of permanent head-quarters induces a good class of men to enlist who would not otherwise accept service.
- 3rd.—It saves the men all the expenses of a move every time their name appears in the relief.
- 4th.—It enables the men to become thoroughly acquainted with the inhabitants of the district in which they are quartered; the knowledge thus acquired being of great use to the Government in case of local disturbance. My regiment has for many years had its head-quarters in the Deccan, with a squadron on detached duty in Khandeish; and if a reference were made to the Bombay Government as to the services they have performed in former days in Khandeish when the Bheels were up, or lately hunting down the Deccan dacoities, I feel sure that the most flattering testimony as to the services they have performed in the suppression of local outbreaks could be given on their behalf.
- 5th.—The presence of the families at regimental head-quarters is a strong security for good behaviour in the event of troublous times.
- 6th.—Permanent head-quarters assist in maintaining a good *esprit de corps*; old soldiers who are worn out put their sons into the regiment, taking their pensions at regimental head-quarters. Their influence has a healthy effect on the conduct of their sons. The traditions of the regiment and its former services are thus kept alive in the corps, and the regimental head-quarters is not merely looked on as a station where so many years must be passed to qualify for pension, but as a permanent home which in many cases is adopted in super-session of the men's own native villages.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

Yes.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Yes. Not only do I consider that there should be a fixed head-quarters, but I would urge that all Bombay cavalry regiments be localized, that the cavalry stations be re-distributed with a view to convenience as regards strategical requirements, communications by rail, forage for horses, districts suitable for breeding remounts, &c., &c.

The maximum mobility of the mounted squadrons in each regiment should be ensured by requiring several weeks or days marching from them annually, either to and from a camp of exercise or elsewhere, but at no cost to Government. This would be found the most certain method to ensure proper regimental camp equipage and transport being kept up.

8. Would the families of the men be likely to settle at the head-quarter station?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I am of opinion that the families of men would not be likely to settle at the head-quarter station.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

If regiments were raised as above, the families of the men would be sufficiently close in their own villages and would not move; if regiments were composed of various classes from various districts, they would not settle there either.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

A fixed depôt or head-quarters station could only be applicable for class regiments. Even in such a case I do not think the men's families would care to settle there. There is too strong a home feeling in the minds of natives to induce them readily to leave the villages they and their forefathers have inhabited. As a commanding officer, I should be sorry to see the men's families located in or about the lines.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

The families of such troops would remain as a matter of course in their own homes, which would be close at hand. They should not be permitted to live in cantonments.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

Fide reply in paragraph 7.

Captain M. G. Gerard, 2nd Central India Horse.

Only from the non-zemindari class. With 75 per cent. zemindars to 25 per cent. non-landholders, we have 20 to 25 per cent. families present, chiefly belonging to latter class. The Central India Horse change from Goona to Angur (130 miles) every three years.

Captain A. H. S. Neill, Central India Horse.

Certainly, if regiments were localized and had not to move far. I think the men would readily have their families with them, but I do not see any advantage in having the families.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Undoubtedly they would. But as the regiment would be recruited from the neighbourhood, the majority would continue to reside in their own villages.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Some few would; but no man would break up his own home for the purpose, or forego his furlough or leave.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

I am sure numbers would, if they had fixed head-quarters.

Lieutenant-Colonel C. La Touche, Commandant, Poona Horse.

This is disposed of in reply to No. 7. The families of the Poona Horse are all at Sirur.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

Yes; I certainly think they would, and I believe the men transferred to the reserve as subsequently proposed would also settle down there, as is very often the case even now at Jacobabad after they have been pensioned.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Yes, assuredly the families would settle at regimental head-quarters, and besides sildars' prospects greatly improved both in a pecuniary point of view and as regards their general comfort and contentment. There is no doubt whatever that the sildars of a local corps have very decided advantages over their comrades in marching regiments.

9. 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 O. Wilkinson, Commanding 2nd Bengal Cavalry.

The 2nd Bengal Cavalry being a mixed regiment, recruiting is not confined to any particular district. There are men from all parts of Bengal presidency, excepting frontier.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

1st Troop.—Ghukkurs from Jhelum and Pathans from Peshawar.
2nd Troop.—Rajpoots from Mynpoorie and Cawnpore.
3rd Troop.—Mahomedans from Rohilkhand.
4th Troop.—Sikhs from Loodianah, Amritsar, and Rawal Pindi.
5th Troop.—Dogras from Kangra and Hooshiarpore.
6th Troop.—Jâts from Rohtak and Bulandshahr.

Colonel Hugh Gough, Com-
mandant 12th Bengal Cavalry.

The 12th Bengal Cavalry was originally a Sikh regiment: hence there is a preponderance of that element. They are chiefly enlisted from the Lahore, Ferozepore, Amritsar, and Loodianah districts. Three troops are composed of Sikhs.

One troop Punjabi Mahomedans, comprising a number of Ghukkurs. These latter are enlisted from the Pindi Ghait and Doomaylee districts, and the majority of the troop generally from the Rawal Pindi division, comprising Jhelum and Gujerat.

One troop of Pathans, chiefly enlisted from the trans-Indus districts about Peshawar, but these men are with difficulty enlisted, being without means.

A mixed troop comprised of Dogras, Jâts and Hindoo Rajpoots. The former are enlisted in the Kangra district, and do not make good cavalry soldiers, and chiefly enlist in the infantry.

The Jâts are obtained from the Bulundshahr and Rohtak districts, and the few Hindoo Rajpoots from about Allygurh.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

The 3rd Bengal Cavalry is composed of three troops of Mahomedans, who come chiefly from the Delhi, Rohtak, and Goorgaon districts; of one troop of Jâts from Rohtak and Hissar; of one troop of Rajpoots from Rohtak and Hissar; and of one troop of Sikhs from Puttiala and Loodianah.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

The 10th Bengal Lancers consists of—

Two troops of Sikhs, enlisted in Loodianah and Amritsar districts chiefly.

One Punjabi Mahomedans, chiefly from Jhelum.

One Pathans and Biluchis, from Hazara, the northern border, and Dera Ismail Khan: so to speak, no men over the border are taken.

One Dogras, from Kangra and Gurdaspur.

One Jâts, from Rohtak.

This is what we ought to have at least; but on the forces going to Malta we raised a fourth squadron, consisting of one troop of Sikhs and one of Pathans and Punjabi Mahomedans; and in process of time we absorbed them into the other three squadrons, so that our Dogras and Jâts are far below strength—the other classes above it.

Captain M. G. Gerard, 2nd
Central India Horse.

Delhi	...	Mussulmans	...	30	} 40 per cent.
Rohtak	...	Jâts	...	10	
Northern Punjab	...	Mussulmans	...	3	} 30
Umritsar	...	(Pathans.)	...		
Frontier	...	Sikhs	...	27	} "
Chumbul (Gwalior).	...	Thakurs	...	16	
Mynpoorie	...	Rajpoots	...	7	} "
Malwa	...	Sikhs	...	7	
		Total	...	100	

The 1st Central India Horse has few Thakurs and a larger Pathan element.

Captain A. H. S. Neill, Central
India Horse.

The Central India Horse is composed of class troops:—

- 1 squadron Sikhs.
- 1 do. Mahomedans.
- 1 troop Jâts.
- 1 do. Hindoos—

Dogras, Rajpoots, &c., &c.

The men are recruited from the districts which these classes inhabit.

There are no recruits obtainable from among the inhabitants of Central India.

Brigadier-General C. J. Godly,
Commanding Punjab Frontier
Force.

The 4th Punjab Cavalry was raised at Pind Dadun Khan, and was recruited largely from the neighbouring districts. Hindustani Mahomedans, Hindus, and Dogras have since been introduced to equalize castes, but the Mahomedans, Hindus, and Sikhs of the Rawal Pindi, Jhelum, and Gujrat districts may be considered the predominating races from which the regiment obtains recruits.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Mooltan, Dera Ismail Khan, Kohat, Peshawar from Buddabir to Eusufzai, Rawal Pindi, Shahpur, Jhelum, Gujrat, Lahore, Amritsar, Jullundur, Loodianah, Umballa, Meerut, Delhi, Gurgaon, Rohtak, Alwar, Jeypore, Bulandshahr, and Alyghur.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

Recruits during last five years—																												
Deccan	<table border="0"> <tr><td>{</td><td>Sattara,</td></tr> <tr><td></td><td>Poona,</td></tr> <tr><td></td><td>Sangli,</td></tr> <tr><td></td><td>Belgaum</td></tr> <tr><td></td><td>Ahmednuggur.</td></tr> <tr><td>59</td><td></td></tr> </table>	{	Sattara,		Poona,		Sangli,		Belgaum		Ahmednuggur.	59																
{	Sattara,																											
	Poona,																											
	Sangli,																											
	Belgaum																											
	Ahmednuggur.																											
59																												
Concan	<table border="0"> <tr><td>{</td><td>Rutnagherry,</td></tr> <tr><td></td><td>Bombay.</td></tr> <tr><td>15</td><td></td></tr> </table>	{	Rutnagherry,		Bombay.	15																						
{	Rutnagherry,																											
	Bombay.																											
15																												
	<table border="0"> <tr><td>Guzerat</td><td>{</td><td>Baroda,</td></tr> <tr><td></td><td></td><td>Ahmedabad,</td></tr> <tr><td></td><td></td><td>Deesa,</td></tr> <tr><td></td><td></td><td>Puttun Sunt.</td></tr> <tr><td></td><td>11</td><td></td></tr> <tr><td></td><td>11</td><td>Born in the regiment.</td></tr> <tr><td></td><td>3</td><td>Khandeish.</td></tr> <tr><td></td><td>1</td><td>Kattywar.</td></tr> <tr><td></td><td>100</td><td>Total.</td></tr> </table>	Guzerat	{	Baroda,			Ahmedabad,			Deesa,			Puttun Sunt.		11			11	Born in the regiment.		3	Khandeish.		1	Kattywar.		100	Total.
Guzerat	{	Baroda,																										
		Ahmedabad,																										
		Deesa,																										
		Puttun Sunt.																										
	11																											
	11	Born in the regiment.																										
	3	Khandeish.																										
	1	Kattywar.																										
	100	Total.																										

Lieutenant-Colonel C. La-Touche, Commandant Poona Horse.

Such a thing as a recruiting party is unknown in the Poona Horse. Owing to the popularity of the regiment, in great part due to its system of permanent head-quarters, candidates for enlistment are abundant, and present themselves for service without any action on the part of the commanding officers. They are in nearly all cases either the relations or friends of men already in the regiment. Some are born in the regiment, some come from the homes of the men in Hindustan, and some from the Deccan. In all cases, however, they are brought up by the men themselves. Khandeish, Sattara, Nagar and Poona supply the Deccan recruits, and the Hindustan men come from the North-West Provinces chiefly.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

Ulwar, Mhow, Furrukabad.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Not easy to do without reference to my regiment, which time will not admit of.

I am aware that for some years past very few recruits have been obtained in the 1st Light Cavalry by recruiting parties, but nearly all have been introduced by men in the regiment. The statements given by these men as to the parts of the country they came from were seldom to be depended upon, as they so frequently, to procure service, false-stated that they were from places within limits of the presidency.

10. Would it be desirable to recruit your regiment from one particular area of country?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

So long as the 2nd Bengal Cavalry is a mixed regiment, I would not confine recruiting to any particular area of country.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No; I don't think this would be a good system, and objectionable both from a military and political point of view; it is easy to see that certain corps obtain preference for service, which is disheartening, if not unfair, to others. This would be more so than ever if some corps were raised from among men supposed, and perhaps rightly, to be of better stuff; whilst others were forced to raise their men from districts and classes not so well thought of. Every regiment should have an equal chance of getting the best and most soldier-like class of men.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

Only in the case of class regiments.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

It would be desirable to recruit the regiment wholly from the Delhi district if it were composed entirely of Muhammadans.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I consider it so important that *all* regiments should be of one class and one country, that it is a constant regret to me that this measure is only so little adopted. The class regiments are the most popular and the best in the service.

Captain M. G. Gerard, 2nd Central India Horse.

No; our present system works admirably.

Captain A. H. S. Null, Central India Horse.

Not the Central India Horse. Would recommend certain restrictions in recruiting, say, for instance, the Bombay cavalry to enlist from their own side of India, and not go to the Punjab and Northern India for men.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

It would be very desirable. The answer given to question 7 would apply here.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I think not (see answer 30).

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

No; I think that commandants should be allowed to enlist to what caste they liked; but at the same time to prevent an abuse of such privilege, the adjutant-general should be informed that so many recruits were wanted, and that the commandant proposed having a certain number of each tribe, for the information of the Commander-in-Chief.

Lieutenant-Colonel C. La-
Touche, Commanding Poona
Horse.

No; I think it is a great mistake limiting commanding officers to a particular district or locality. I think they should be allowed great latitude as to the districts whence they should draw their recruits. Tying a commanding officer down to a certain district must inevitably lead to his entertaining many men of whom he disapproved, and at the same time would compel him to reject many candidates whom he would gladly enlist. I think the existing regulations should be relaxed in favor of commanding officers.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

I think not, because there is no doubt that great difference exists between the physique of the different races in India; and if any regiments are restricted to districts when this physique is weak, it brings undeserved reflections on them, and very frequently leads to their condemnation through no fault of the commanding officer. I would propose that every regiment should have a certain proportion of each of the good classes.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

No, I prefer a mixture of men from different districts.

11. Do you consider the present system of increasing the army on the outbreak of a war sound and satisfactory as regards its results?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

The present system of increasing the army on the outbreak of war is not satisfactory as regards cavalry. The time required to make a cavalry soldier, the scarcity of remounts, and the difficulty in supplying and afterwards disposing of his equipments, are all objections against meeting sudden emergencies.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

Most unsatisfactory, particularly for cavalry. In this regiment the men having to be recruited from six different classes from various parts of India is one difficulty, and getting men with money is another. The mounting and equipping of a number of men beyond the usual strength of the regiment; obtaining clothing, arms, and saddlery and tents, which in this regiment were ordered at once for the increased complement and mostly obtained, whilst the full number of recruits have not been entertained, and further recruiting stopped, thus throwing a quantity of clothing and equipments on the regiment; this followed by the subsequent reduction when the regiment, having more arms, clothing, horses, and equipments of sorts than required, is unable to take over those of the discharged sowar, without loss to one or both—all these are difficulties which, in my opinion, render the present system most unsatisfactory.

Colonel Hugh Gough, Com-
manding 13th Bengal Cavalry.

Far from it. After the regiment under my command had been about a month under canvas, and were already on the borders of the Afghan frontier, orders were received to raise an additional strength of 16 men per troop. To enable me to do this, I had to detail recruiting and remount parties from the head-quarters of my regiment, thus weakening our fighting strength; an establishment had also to be kept up at the depot, to drill the young recruits and break in the remounts as they arrived. Owing to the paucity of British officers borne on a regiment of Bengal cavalry, I could not afford to detach one for the purpose of superintending the enlistment of the recruits; and the result was that, although the number required were eventually raised, they were not of the stamp of men I approved of, and at no time were they fit to proceed on active service.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

I consider the present system to be very far from sound or satisfactory.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

No, quite the reverse. On joining the army of Afghanistan we were very fortunately circumstanced, as we had just made four squadrons into three, and so had hardly any recruits; but other regiments with 100 recruits were practically unfit for service. I consider none but trained soldiers should ever go on service. Not only do recruits do no work, but they take away the best soldiers from their proper work to look after them.

Captain M. G. Gerard, 2nd
Central India Horse.

Yes; if Government will grant a slight compensation on reduction, it seems the best adapted to such an exceptionally situated army.

Absorption can be effected with slight loss to chanda by casting a smaller percentage for two or three years, a horse's term of service averaging only half that of a sowar's. Arms, &c., are a dead loss to regiments, and should be purchased, on reduction, by Government.

The objections to its working as shown by recent war, all of which would be obviated by organization (3), (4), (5), were—

1st.—Half-trained recruits with regimental head-quarters in the field were useless men and horses to feed, &c., a source of unsteadiness in an alarm.

2nd.—Had operations proceeded actively, neither could officers have spared time for their instruction, nor been left behind with the recruits for the purpose, as they were required to manage their own squadrons in the field.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

No; certainly not. The recruits enlisted hastily were inferior as to physique in many cases, and had not completed their training before the war was over.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

In no way. I have not seen a single recruit of the augmentation. I would, if necessary, increase regiments for active service, not by volunteers from regiments remaining in garrison, but by bodies, say troops or squadrons, of such regiments, they being the most distant from the scene of war, filling up by their own reserve (see answer 25), or recruits.

Lieutenant-Colonel C. La-
Touche, Commanding Poona
Horse.

I consider the present system unsatisfactory. In the first place, a cavalry soldier cannot be made thoroughly effective at a moment's notice. A great deal of training has to be gone through for man and horse; and the latter must likewise be put into thorough condition before he is fit to undergo the hardships and privations of a campaign. If a campaign extended over a year, then no doubt a good deal might be done even with raw material of men and horses to start with; but in the event of a short sharp campaign, it is extremely doubtful whether newly enlisted soldiers hastily trained would meet the requirements of the service, if opposed to a disciplined enemy. But there are other objections to it in addition to the above. Qualified recruits, with capital sufficient to purchase and equip a horse, cannot be procured at a moment's notice. In the Bombay presidency the average price of remounts is four hundred rupees. Saddlery, baggage-ponies, &c., &c., would certainly come to over one hundred rupees an assamee. Speaking approximately, therefore, for each cavalry soldier raised, five hundred rupees would be required. Where is the money to come from? A few men with that amount of capital might, no doubt, be forthcoming at a moment's notice; but certainly they would not be forthcoming in large numbers. This difficulty could only be got over by Government presenting each man on enlistment with his horse and saddlery free, and furnishing him with the funds for making his baggage arrangements; for by the rules of the service each soldier must keep up a baggage-pony for every two horses. Supposing, however, that Government did come forward with the funds, and equip and horse each newly raised soldier free of cost, there would still be further difficulty at the close of the campaign. Orders would then be issued to stop recruiting. Shortly afterwards perhaps a dozen men might go on pension; their places would not be filled up; therefore twelve assamees would have to be absorbed. But the owner of such would be men who had purchased their assamees perhaps years before out of their own money; and therefore, if these were reduced, Government would have to compensate them for the loss of their capital. The only alternative for Government would be to absorb one of the newly-raised assamees, taking back their own horses. The effect of this measure would be to convert the newly-raised soldiers into bargees. This would cause great discontent, and, if known before, would probably cut off the supply of available recruits. Taking it which way you will, I look upon the present arrangement as one full of difficulties and complications, which might no doubt on an emergency be overcome, but only by the outlay of a large sum of public money.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

Certainly not. It is, I think, very unsatisfactory.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

Decidedly not satisfactory in any respect.

12. What number of recruits were obtained in the recent augmentation, and what numbers were sufficiently trained to allow of their serving as effective soldiers with the regiment prior to the termination of the war?

Colonel C. J. S. Gough, 6th
Bengal Cavalry.

Seventy-eight recruits in all were entertained; but as the regiment was 5 below strength, and 17 vacancies occurred after the order for enlistment through invaliding and other casualties, 118 recruits were actually required to bring the regiment up to the war strength. Of the 78 recruits so entertained, one-half would have been *useful*, though not thoroughly trained as effective soldiers.

Colonel Hugh Gough, Com-
manding 12th Bengal Cavalry.

The full number of recruits were eventually obtained, but being utterly raw material, and in many cases, not of the stamp for cavalry soldiers, there was one whom I could pronounce thoroughly effective

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

as fighting men, being only half trained, though perhaps *one-third* might have been utilized for certain duties, and would of course have gained experience and training had we advanced into Afghanistan.

Seventy-eight recruits were obtained; none of them were sufficiently trained.

Even if they had been obtained on the day of the declaration of war, and if on that day horses, arms, accoutrements and equipments had been served out to them, I do not consider that they could have become effective before the conclusion of the war; for it takes at least twelve months to instruct an intelligent cavalry recruit up to an effective standard; and as a matter of fact considerable delay must always take place in obtaining remounts for any large number of recruits simultaneously enlisted.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

This is answered in my reply No. 11; but our regiment was the only regiment in the service with four squadrons during 1878.

Captain M. G. Gerard, 2nd Central India Horse.

As one regiment of the increased strength could be instantly despatched by the force, no augmentation was made in the Central India Horse which on account of detachments has a permanent establishment of 140 instead of 128 sowars per squadron.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Ninety-one recruits were enlisted on account of the augmentation and to supply vacancies.

Fourteen only were dismissed drill as effective soldiers, thoroughly trained.

Thirty others were sufficiently so to admit of their joining the ranks should they have been wanted.

A great number of casualties occurred during 1878-79.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Thirty-four. None have joined the regiment up to date.

Lieutenant-Colonel C. LaTouche, Commanding Poona Horse.

The orders of my regiment to proceed on field service having been countermanded prior to any possibility of augmentation, I am unable to give any information on this point.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

The order to recruit to the war establishment was only received after the regiment had marched from Jacobabad; consequently, there was some delay in sending recruiting parties; but the requisite number was soon obtained, but none of them were sufficiently trained to join the ranks before the termination of the war.

Major A. R. Heyland, 1st Bombay Light Cavalry.

The 1st Light Cavalry was not one of those augmented, nor am I acquainted with any regiment so augmented.

13. If your regiment 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 C. J. S. Gough, 5th Bengal Cavalry.

All men would be fit, except those who would be sent before the next invaliding committee. Generally about 15 men are passed by the Board yearly.

I would prefer to take *all* recruits who were fully equipped; they would learn their work much faster and better, and would soon become efficient soldiers, and would at all times be useful in taking minor duties in camp and enabling the effective to turn out for fighting purposes.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

Of old soldiers now borne in the rolls of the regiment, there are about 40 men, who from sickness, brought on by the fatigues and privations of the campaign, would be unfit to proceed on further active service, and who are now either on sick leave or at the depôt.

Of the recruits, my latest accounts from the regiment state that they are all steadily progressing, and I presume about two-thirds would be fit to proceed.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

There are not more than two or three men now serving in the regiment whose age might possibly unfit them for active service. There are now 77 recruits.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

We have very few old men in the regiment, and only about 30 recruits; say, therefore, we have 33 men short of war strength.

Note.—The regiment is still in Afghanistan.

Captain M. G. Gerard, 2nd Central India Horse.

Out of 493 Natives of all ranks, half the Native officers and 100 rank and file, though able to stand actual campaigning, are unfit in the saddle, from stoutness and want of nerve.

About 20 recruits unfit in musketry only.

Most of former could be pensioned under existing rules, but partly from difficulties raised by medical boards, and chiefly from dislike to take their pensions, and in consideration of past services they are yet in the ranks.

Captain A. H. S. Neill, Central India Horse.

Very few. There are no very old men in the corps, and the recruits would not be much of a burden to the regiment, and would soon be sufficiently hurried to be efficient.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

There are five men that would be unfitted on account of age, and there are 72 recruits, of whom 45 are, however, sufficiently trained to render them effective soldiers on a campaign.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Probably not 6 on account of age. There are at the depôt at Dera Ghazi Khan 105 recruits,—34 the augmentation and 71 in place of pensioners and death vacancies.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

Unfit	...	...	...	10
Wanting	...	...	...	3
Recruits at drill	...	...	...	47*
Total				60

Lieutenant-Colonel C. LaTouche, Commanding Poona Horse.

In this regiment about twenty men are pensioned annually as unfits, and allowing ten more for temporary ailments and thirty-five for recruits, the total unfit for active service would average about sixty-five.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

About 12 besides the 60 old recruits at Jacobabad.

Major A. R. Heyland, 1st Bombay Light Cavalry.

I cannot at present say, having been away from the regiment some months; but I am aware that when it received the orders to embark as part of the Malta Expedition, that there were about—

recruits	...	...	...	17
men declared by the doctors unfit to go on service	...	...	...	65
Total				82

14. At what age do you consider that Native soldiers become unfitted for the hard work of a campaign?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I think cavalry soldiers are not generally fitted for the hard work of a campaign after about 36, if so long.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

It is impossible to lay down a hard-and-fast rule on this subject: I should say between 50 and 55.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

At from 40 to 45 years of age.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

A properly selected recruit would probably last fit for any campaign up to 45 years of age; as an average, I should say 40 years of age.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

Speaking of course, as a rule, I should say 50 years. This allows a man to enlist under present rules at 18, and serve 32 years for full pension. I do not think any one should serve longer.

Captain M. G. Gerard, 2nd Central India Horse.

After 40 they are seldom good horsemen, though able to stand actual fatigue up to 45 or 50. We have a few of the old Khalsa Sikhs upwards of 60 still wiry and hard.

Captain A. H. S. Neill, Central India Horse.

From 40 to 45 years, according to class. I think the Mahomedan wears the least best.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

This is difficult to answer, as Natives never know their own age; but I think, as a rule, a Native soldier, especially if he is in the infantry, is not of much use for hard work after 45 years of age; but a great deal depends of course on their habits of living. A cavalry soldier doing his duty mounted would last a little longer.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Say after 25 years' service, or about 45 years of age; but many older men are fit for any work.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

After fifty years. I would not admit men to pension, as at present, at such short service as fifteen years; it is undoubtedly the cause of much malingering amongst a great portion of the Bombay army when

* This is exceptional. A number of men had to be invalided on our return from Cyprus at the end of last year: hence the large number of recruits.

the men have reached that time and are tired of soldiering. Government would, I think, save a good deal by prolonging the time for pension to twenty years. The commissioned officers, when specially recommended by commandants, to be allowed to complete thirty-eight years.

Lieutenant-Colonel C. La Touche,
Commanding Poona Horse.

This is a difficult question to answer in the form in which it is put, so much depending on the sort of life a man has led. Speaking generally, however, I should say that after forty-five a man would be more serviceable with the *depôt* than in the field. In spite of this statement, I feel bound to state that I have known many men quite fit for service at fifty, and in the case of Native officers at fifty-five, and I have likewise known many men totally unfit for service before they are thirty from opium-smoking and similar vices.

Lieutenant-Colonel J. H. P. Malcbrason, Commanding 3rd Sind Horse.

I consider from 12 to 15 years' service to be the limit (dependent on the physique, &c., of the man) at which Native soldiers have the strength to undergo the hard work and privations of a campaign.

Major A. R. Heyland, 1st Bombay Light Cavalry.

A most difficult question.

I am afraid no fixed rule can be adopted. It would appear to be the case with Natives of this country, more than with Europeans, that a fair proportion retain their vigour and capabilities for active service even to 30 years' service and beyond; but a large proportion, especially of Muhammadans of this presidency, either from dissipated habits, or manner of living, become really useless in 10 or 15 years' service.

The seasoned soldier of 20 and 25 and even 30 years' service who retains his vigour is, as a rule, from his superior experience and discipline, more valuable as a soldier than a younger man, and I should leave the question of a man's fitness for prolonged service more in the hands of commanding officers and less to invaliding committees, who have no interest in the matter than at present is the custom. Men known by commanding officers to be useless are often returned as fit year after year by the invaliding committees.

15. Do you consider that there is an advantage in your regiment being called on to serve beyond the limits of the presidency and on the frontier?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

If my regiment were not detained for any protracted period, there would be no disadvantage in its serving in other presidencies or on the frontier; but the service would be less popular if men were kept for any unusual time from the vicinity of their homes. Nothing so much tends to the contentment of Natives as giving them leave to see their families.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

As the Bengal presidency is a very large one, I do not see any particular advantage in sending them out of it. Of course it should be done when necessary; it would be better to employ them on the frontier as well as elsewhere.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

Undoubtedly, as a temporary measure, and when the exigencies of the State might require it; but otherwise I do not see the advantages of regiments being called on to serve in another presidency.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I do not consider that in ordinary times it is advantageous for the regiment to serve beyond the limits of the presidency or on the frontier; but foreign service in time of war or disturbance in other parts of India would be in every way good for it, and would of course be eagerly welcomed.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think there is this advantage, that we have no men enlisted outside the presidency or over the border, so that we should not have brother fighting brother, which is not only impolitic, but inhuman.

Captain M. G. Gerard, 2nd Central India Horse.

Not in peace, provided always it can be brought in contact with other regiments at camps of exercise, &c.

Captain A. H. S. Neill, Central India Horse.

Only on service and emergency.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

This question is meant for a Bengal cavalry regiment, as the Punjab cavalry are already on the frontier. Any service beyond the limits of the presidency must be good for the regiment.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

A decided advantage in both calls. Beyond the presidency to show that the oath taken by the recruit is not an idle form, to confer the undoubted benefit of travel, and to dispel prejudices. On the frontier (such as our former one) because Native officers, non-commissioned

officers, and frequently the men themselves, have opportunities (not existing elsewhere) in detached outposts, commands, and positions for showing their judgment, intelligence, and commonsense. But to foster a desire to reap these public advantages the service beyond the presidency or on the frontier can be made popular—

By a regular roster for such service. Regular reliefs from such, say every two years.

As liberal grants during such service as Government care to afford, such as free camel-carriage from and back to their station in India, or free rations or batta from and to the date of their quitting and returning to India.

And on their arrival at their appointed station in India, a liberal grant of leave, so that the whole regiment should visit their homes during the first year of their return. Another point, and it should almost be classed first of all, is the simplifying the monthly remittances of all Natives (soldiers or public or private followers) attached to a regiment so serving; for it is almost impossible to exaggerate the inconvenience many men have been put to during this expedition to Kandahar owing to the delay in their remittances reaching their homes. I recommend that the commanding officer of such a regiment be empowered to draw cheques on any treasury in India for such *bona fide* purposes. I have fully described the system I recommended in my letter No. 309, dated 14th August 1879, to the address of the Assistant Adjutant-General, Field Force, Kandahar, for the information of the Adjutant-General in India, and can, if necessary, repeat what I then said. I am convinced that it, or something like it, would be the greatest imaginable boon to soldiers serving out of India.

I will only add that if the grants-in-aid to popularize distant service are thought too lavish, it should be remembered that the most lasting and widely circulating impressions are caused by a travelled soldier returning to his home a rich man.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

The only advantage that I can see is by mixing and being brigaded with other regiments; it stirs up all ranks. But this regiment, except in time of war, has never served beyond its own presidency.

Lieutenant-Colonel C. La
Touche, Commanding Poona
Horse.

If on field service, certainly; but for mere garrison duty I see no advantage whatever. I think that the European officers in many cases might like it; but as regards the body of the regiment, I think such a measure would be very unpopular.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

I consider it is an advantage for any regiment to be called on to serve beyond the limits of the presidency and on the frontier. In the former case they become acquainted with different countries and circumstances, learn to accommodate themselves to the altered circumstances, and on the frontier learn to rough it and get an insight into the practical working of their drill, which they can never hope to gain in the ordinary routine of garrison duty in a down-country cantonment.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

Yes, for active service, leaving a European officer to have charge of dépôt and reserve, and returning to regimental head-quarter station after a tour of service abroad. But I should preserve the presidency name, number, and traditions of each regiment most carefully.

16. Do you consider the reserve system could be applied to the Native army?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

I consider the reserve system could be applied to the Native army, but it must involve very considerable expense.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

Yes; a reserve system might advantageously be instituted, and the following appears to me a feasible and certainly good one for the cavalry, if not considered too costly. Raise regimental establishment from 384 sowars to 480. Of these, form 96 into reserve. These men must have served 15 years in the ranks, bear good characters, and be physically fit. The ages of men so transferred would be between 33 and 37. They should receive Rs. 20 per mensem consolidated pay, including chanda and horse allowance. They would remain on the rolls of the regiment, through which they should draw pay monthly, the same as men on furlough. They would be treated in fact as on furlough for five years, or the time so employed, and would maintain horse, arms, clothing, and equipments (his carbine only should be left with his regiment). They should have to go through 15 clear days' training annually with the nearest cavalry regiment, when they should be reported on or certified by such commanding officer as efficient, and horse, arms, equipments serviceable and in good order. After five years' service in this reserve, they should be eligible for their ordinary pension, if passed by a medical board.

By this arrangement every regiment would be fully maintained, mounted and equipped at fighting strength, and the saving of pay per man would be Rs. 10 per mensem, as each of these men would otherwise obtain, with good-conduct pay, Rs. 80 per mensem.

I believe the men would be glad to accept these terms, and the reserve fully maintained. I don't think they could do the thing well on less pay than Rs. 20. The effect would be that every regiment would muster its full war strength within a very few days of calling out its reserves.

I am opposed to any system which would reduce a regiment of good seasoned soldiers to one of boys. Neither do I think any system would be suitable for cavalry that did not include the maintenance of horses.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I think a judicious system of reserves is the only way to render regiments thoroughly effective in war strength, and to maintain them so.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I consider that not only could the reserve system be applied to the Native army, but that such a system is in fact essential to the development of its efficiency.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

To the Native infantry readily; to the Native cavalry, as at present constituted, with more difficulty.

Captain M. G. Gerard, 2nd Central India Horse.

No; save on a limited scale, it would be false in principle, and a failure in practice (for cavalry). The former as our Indian army is, as much for internal as exterior defence; the latter for various reasons:—

1st.—Soldiering being a profitable trade, the terms necessary to induce sowars to join the reserve are relatively extravagant. Enforced short service would deter recruits. From enquiries made, nothing under Rs. 10 per mensem, about full dismounted pay, would be acceptable to men of 15 years' service, and duffadars more.

A sowar on Rs. 30 spends on an average Rs. 12 per mensem *regimentally* (horse, uniform, syce, &c., including house, troop servants, and numerous advantages). He thus has, deducting interest of his assamee, a clear Rs. 16 per mensem profit (some men save Rs. 100 annually after providing food, &c.). Three-fourths of our men are zemindars, who one year with another can thereby just support their families; their fields are cultivated by family arrangements, and their absence or otherwise represents a difference of Rs. 6 or so, whilst regimental duty is no more onerous than field labor. This estimated loss by the transaction of Rs. 10 must be made good by Government to induce sowars to join the reserve.

The one-fourth non-zemindars, having no trade to live by, require similar inducements; but would be ready to earn pay as Government chuprassis, &c., which the former class would not. A Native cavalry regiment is already in some senses a reserve only, as Government expenditure must be largely increased to enable it to bear a severe campaign.

2nd.—Government, moreover, must provide horse, arms, and saddlery to reserve men, as it requires 10 to 12 years' full pay to make the khudaspasystem profitable.

3rd.—Natives of a certain age, if not in regular work, become indifferent horsemen; so as I believe in the necessity of only a percentage of sowars having a careful musketry training, half-trained recruits are preferable to middle-aged reservists for cavalry, though it is not so for infantry.

4th.—Assamees must be returned to men quitting the regiment for reserve; and this bail for their fidelity ceases also.

5th.—The influences of *esprit de corps* and personal regard for officers would by transfer to reserve be the one partially, and the latter entirely, removed.

6th.—Even if reservists were ready, trained remounts would lack. So that the service squadrons would probably be reinforced no sooner than under present system.

Captain A. H. S. Neill, Central India Horse.

No.—Certainly not yet. I think it a subject which should be viewed with much caution.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Yes, I do; and I think it would be very popular with the men.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Yes, as an experiment well worth trying, if it is manned voluntarily by men who have land, and so giving promise of their ability to perform what they have to undertake.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

No.—The reserve system I think a very delicate subject to handle. I myself would put no trust in it, as Natives are so easily led away. Experience has shown that men who were thought most loyal and trustworthy during 1857 were tempted away; but of course it may be different now.

Questions 17, 18, 19 (a), (b), (c), 20, 21, 22, 23, and 24 are all answered in the above.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

I see no reason, theoretically speaking, why the system of reserves should not be applied to the Native army. Whether the practical result of such a system would be satisfactory could only be ascertained by actual experiment. The principal point to be considered appears to me to be the political expediency of having a large number of trained men

in the prime of life all over the country, who, even if they could not get at their own arms, might possibly, in the event of another mutiny, find their way into foreign territory, to swell the ranks of the Native States. If there is any reason to suppose that the time has not as yet arrived to count with absolute certainty on the loyalty of Native troops being proof against influence which might be brought to bear against it, then I think it would be worth while considering whether a system, which would throw on to their own resources a large number of men who accept military service because they are unfitted for anything else, would not have a mischievous result. As regards the cavalry branch of the service, no system would, in my opinion, meet the requirements of the case that did not provide for the supply of well-trained and well-seasoned remounts, as remarked in reply to question No. 11. Cavalry soldiers cannot be turned out at a moment's notice fit to take the field; and as the cavalry is the branch of the service which would in the event of a war be the very first whose services would be required, it should, in my opinion, be always kept as nearly as possible at war strength. I look upon the question of cavalry reserves as one which requires very careful consideration; inasmuch as, no matter how well the man may be trained, he is useless without an equally well-trained and well-seasoned horse. I would certainly deprecate any system that would permit of a cavalry reserve man

being permitted to draw horse allowance on the condition of his mustering a horse in his village; for most assuredly, though from want of work the animal might present a respectable appearance when inspected, his condition would be such as to speedily break down if exposed to any heavy strain on the outbreak of hostilities. Any system of cavalry reserves should carefully provide, therefore, for the condition of the horse as well as that of the man. I look upon systems of reserve, however, as far more applicable to the infantry than the mounted branches of the service.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

Yes.

Major A. R. Heyland, 1st Bombay Light Cavalry.

If carried out at once and on a large scale, I think it would be decidedly incurring too much risk; but on a small scale, and carried on a regimental system, with quarterly musterings, I think it should be tried.

17. Do you consider that in the case of popular disturbance men in the reserve would respond to the call to join their colors; or would they be likely to make common cause against Government?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I think, if the Government is liberal to reserve men, they would be likely in the great majority of cases to rejoin their colors.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

This would always much depend on the exciting cause. There are some questions, which being cleverly raised, and men's minds violently agitated on, would probably carry them away. But with the present system of government, I do not see the slightest probability of any such agitation occurring; and on all ordinary occasions my opinion is, that these men could be safely calculated on to do their duty.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I think men in the reserve would be equally loyal as their comrades with regimental head-quarters; and that their regular annual training, combined with the feeling of discipline and supervision, would cause them fully to remember their duties as soldiers.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I do not doubt that the reserve soldiers would join their colors whenever called on. If the habit of discipline and loyalty were not sufficient to make them do so, they would be apt to remember that they differed from the rest of their neighbours in being all enrolled, that their homes were known, and that they could be easily got at after a disturbance was quelled.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think if reserve men have a stake in Government prosperity, they will uphold the Government, make their post worth holding, and they will hold it and be loyal to Government, because loyal to themselves.

Captain M. G. Gerard, 2nd Central India Horse.

They would hold aloof under pretexts of sickness, unsafety of roads, &c., in any sufficiently serious affair to induce doubts of our ultimate supremacy, and try to see how the tide turned. Removed from regimental influences, exposed to those of seditious agents, and swayed by entreaties of their families, it seems most probable they would simply consult their personal interests.

Captain A. H. S. Neill, Central India Horse.

If there was sufficient inducement, either from religious or mercenary causes, I think a great number would just as soon make common cause against the Government as not.

Brigadier-General C. J. Godby, Commanding, Punjab Frontier Force.

I think they would all join their colors. A few might not; but they would be without arms.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

After the mutiny, I dare not answer with any assurance for the men in the case put; but I believe they would respond to the call of Government. I am afraid I cannot include Pathans from near our former border in this belief.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

My own opinion is, that the chances of the men responding to the Government call are greatly in excess of the chances of their making common cause against the State. But after the experiences of the mutiny, I do not see how it is possible to speak with certainty on the subject. I believe the time will eventually come when Government will be able to look with perfect confidence on their reserves; but at present it would be safer to assume that, though many of the men will join their colors, there will be some who at a really critical juncture may be expected to turn the other way, more especially amongst men of the lower grades, who may find the prospect of looking forward to a long period of service in the reserve, on small pay, not at all to their liking.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

I think the men would gladly rejoin the regiment. It must be remembered that men leaving the regiment by no means lose all interest in it. They leave their assamees in which they have invested their money to their friends and relations, and consequently take a lively interest in the well-being of the same; and I feel sure the men of the regiment passed into the reserve as I propose would without hesitation join the Government in suppressing any disturbance.

Major A. B. Heyland, 1st Bombay Light Cavalry.

Only, if it be made obviously to their individual advantage to remain faithful, should they be depended upon. To make this clear to their minds, the pay and other advantages of the reserve should be as liberal as possible.

18. After what number of years' service would you pass a soldier into the reserve; and how long should he be called on to serve with the reserve before being able to claim pension?

What should be the pay given while in the reserve?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I think cavalry soldiers should serve fourteen years with the regiment and ten years in the reserve before being able to claim pension; but they must not be more than 18 on enlistment.

I think it would be impossible to offer the reserve men less than five and four rupees, first and second class.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

In my reply to 16, I stated—for cavalry after 15 years' service he might pass into reserve; after five years' service in which he would become eligible for pension, and his pay, including chanda and horse allowance for maintenance of his horse, would be Rs. 20 per mensem.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I am of opinion that Native soldiers should be engaged to serve a period of six years (liable within three years to discharge at the discretion of commanding officers, if not likely to develop into good soldiers, as at present).

At the expiry of six years, the commanding officer to decide whether the man is fit to remain with the regiment, be drafted into the reserve, or be finally discharged. According to his decision, the soldier to have the option whether he accepts it or takes his final discharge.

No man to be passed into the reserve who is not a good character and a good soldier:

As a matter of rule, commanding officers will be loth to pass their best men from their regiments to the reserve. And from my experience, I should say most good soldiers would prefer remaining with their regiments than leaving for their homes, even with the inducements of pay with the reserve. But there are hundreds of thoroughly good and reliable men, who are constantly taking their discharge owing to urgent private causes, forced to take this step by circumstances at the time, and who, as often as not, would gladly re-enlist. The prospect of a reserve would be to these men a great boon.

All men passed from regiments into the reserve should be borne on a regimental reserve roll, and on being called out revert to their own regiments.

Men re-engaging after their first six years, should be engaged for another six years; after which, as before, they might remain with their regiments or join the reserve, at the discretion and recommendation of their commanding officers.

Those remaining with their regiments for the full term of 18 years to come under pension rules and conditions, as at present.

For men in the reserve, I would not recommend any pension whatever, but a gratuity on final discharge after 12 and 15 years' service, both in the ranks and reserve inclusive.

The pay of all the rank and file in the reserve to be the same when out of training; but when called out for their annual course an extra sum to be granted, say in the former case Rs. 2 per mensem, and in the latter Rs. 6 in addition thereto, with extra staff pay for non-commissioned officers according to grade. With regard to the Native cavalry soldier passing into the reserve, one or two points for question present themselves, the chief of which is, how is his assamee to be arranged for? On a sowar's transfer from his regiment to the reserve, he would, as a matter of course, have his accounts squared, and receive the full balance of his assamee, exactly as if he was receiving his final discharge.

The question then arises, who is to be answerable for the man's assamee when called out for service, or whence are his arms, accoutrements, and horse to be procured?

For the mere matter of his annual training, I think the sowar might be on the same footing as his infantry comrade. His arms, which should be supplied by the Government, might, indeed ought, to be kept at the reserve centre of his district. His uniform, which for reserve duties would be of the simplest, he should be himself answerable for. And for his annual training, I do not think horse or horse equipments would be necessary; inasmuch as for the annual course of training a course of musketry and drill in foot should be sufficient, except on such opportunities which may offer themselves from the fact of his regiment being quartered in the district.

But on being called out for service, the reserve man must produce his assamee, or the equivalent in money; and to ensure his doing so, it would be absolutely necessary that good and substantial security should be taken at the time of his passing into the reserve from his regiment.

The security I would propose to be taken from two at least of the principal landholders of his village, under the orders of the civil authorities. This step would, I think, ensure the forthcoming of the usual amount a sowar brings on enlistment, being from Rs. 150 to Rs. 200, which in the case of the reserve man coming forward, probably with some pecuniary inconvenience and for a limited period, might be fixed at the lower sum.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

After 14 years' service he should, if not promoted, and if physically fit, be passed into the reserve; and he should serve in it 12 years more, or 26 in all. I would also permit any trained soldier after three years' service to volunteer for the reserve, provided he obtained his commanding officer's sanction, and provided the numbers of the reserve did not exceed the strength of a line regiment, provided also that he did not become entitled to pension till after a total service of 26 years.

I would also permit a sufficient number of Native officers and non-commissioned officers to be passed into the reserve, provided that this latter class did not become entitled to pension till after a total service of 32 years.

Reserve pay should be as follows:—

		Per mensem.
		Rs.
Ressaldar and ressaldara	...	40
Jemadars	...	25
Duffadars	...	17
Sowars and trumpeters	...	14

The above scale to apply to those who possess and produce at periodical muster a suitable horse.

		Rs.
Dismounted reserve pay to be, for duffadars	...	6
And sowars	...	4

Full pay should be given to all ranks when called out for drill or service.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think a hard-and-fast line would be an error. No man should be allowed to join the reserve till he has served 4 years; and sowars after 12 years service should be passed into the reserve, in which they should serve 12 years more.

The pension rules would have to be altered considerably. Having no stage between 15 and 32 years is a very great mistake. Men leave at 15 years who would be happy to serve longer for a larger pension; but they do not wish to serve so long as 32 years. An ascending scale should be adopted, and the men permitted to take pension at pleasure, whether fit or unfit for service. After 24 years' service no sowars, unless passed by a medical board, should be allowed to serve longer in the reserve; and none should serve after 50 years of age. Officers and non-commissioned officers should have a separate scale of service; and I think it would be fair to allow a reserve man to be promoted back to the service troops.

I think a reserve sowar should get Rs. 3 a month without any deductions whatever. He should, when called out for training, get one month's pay, *in addition to* the pay for the time he is out. When called out for service, he should get one month's pay in advance and two on discharge, also in addition to ordinary pay.

Captain A. H. S. Neill; Central India Horse.

I consider the question of reserve totally impracticable for Native cavalry. The reserve men after a few years of idleness would lose their nerve and riding, and would be no better, probably worse, than a fresh-caught recruit.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Six duffadars and sixty sowars (*vide answer 1*) to form the reserve of each regiment.

After three years' service I would allow them to volunteer for the reserve. Any man after ten years' service to be liable to be sent by his commanding officer to the reserve.

It is thought many will volunteer who otherwise would have to resign the service on account of family affairs.

Pension rules to apply to them. In fact, their service in the reserve to count as service with the regiment in every respect.

Their pay should be—

		Rs.	A.
Dismounted	...	5	0
Horse fund	...	2	10
Horse allowance	...	7	0
Total		14	10

in addition to good-conduct pay.

No man living beyond the border to be allowed to join the reserve.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

On and after completing 15 years' service in the army, and on completing 25 years' combined army and reserve service, he should be entitled to claim his pension.

If he becomes disqualified from sickness at any time after entering the reserve, he must be pensioned as he would have been in the army.

His monthly pay should be Rs. 16 as a sowar, Rs. 20 as a duffadar, and Rs. 30 as a Native officer; and he should receive it either from his late commanding officer through the nearest treasury officer, or through the reserve staff on producing a satisfactory amount.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

The number of years a soldier should serve before being passed into the reserve should depend on the numerical strength of the reserves, which it is the object of Government to maintain. In my opinion a Native soldier is perfectly trained both as regards his drill and discipline in four years; and if it is the object of Government to lay the foundation of a large reserve army, I see no reason why soldiers should not be passed into it after that period. I presume, however, that economy, rather than great numerical strength, is the result aimed at; and I would, therefore, suggest that a soldier should serve 15 years with the colors. On being passed into the reserve, he should receive Rs. 5 a month.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

I think in the cavalry after ten years' service a soldier might be passed into the reserve for 10 years' further service. The rest from military duties after 10 years only would reinvigorate him; and he would, I think, under these circumstances, be able to bear the hardships of a campaign for a longer period than he otherwise would.

Two rupees a month would, I think, be sufficient, as they would be quite able to work for themselves.

Major A. R. Heyland, 1st Bombay Light Cavalry.

I would make this entirely dependent upon the requirements of the service; but would not let any Native soldier enter the reserve under five years' service on full pay with the regiment, and only as many as were required to make up the reserve of the regiment, and could be spared, giving priority of choice to serve in the reserve according to seniority in

each rank. I believe employment in the reserve would be eagerly sought for by Native cavalry, if certain privileges to be mentioned further on were accorded them.

I would make the pay of the reserve for all ranks half that with the colors, but without cutting, and exclusive of horse allowance and compensation for dearness of provisions, to both of which latter they should not be entitled; and would have the men of the reserve troops or companies mustered quarterly with their regiments or detachments of their regiments in the cavalry, and in the infantry with the nearest detachment or regiment in the same presidency, for payment; and permit them to retain the rank in which they entered the reserve; and permit promotion to go on in the reserve, keeping of course to the proportion of each rank in the reserve troop or company.

19. (a) Do you think it would be an advantage to divide the reserve into two classes, the first liable to be called out for active service, and the second for garrison service only, the first class passing into the second?

(b) If you consider that the reserve should be divided into two classes, what should be the pay of each class?

(c) How long should a man serve in the first reserve, and how long in the second reserve?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

(a) I would recommend to divide the reserve into two classes.

(b) Answered in 18.

(c) I think that a man should be liable to serve five years in each grade.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

No; I think not. At least until the experiment of a first reserve has had a thorough good trial.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I think it would be a mistake to complicate the organization by having more than one class of reserve. At the same time I would permit men from the reserve during war to volunteer for service with the line regiment during the continuance of the campaign. Such volunteers would probably be found sufficient to supply the place of casualties; while, at the close of a campaign, the recruits who in the meantime had been enlisted and instructed at the local head-quarters would be ready to step into their places and allow of their return to the reserve.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I do not consider that a reserve in India at all resembles a European reserve, and that there is nothing to be gained by two classes.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

(a) The reserve should be regimental and composed of two lines. The first line of those mentioned in answer 18; the second to be men of 15 years' service, who, though unfit for fatigue, may have some work left in them sufficient for ordinary garrison duties.

These could be invalidated when finally unfit. The second line would not number more than twelve men.

They need not keep their horses. When called out, they would join on foot, and do foot garrison duty on full dismounted pay, *viz.*, Rs. 9-6, in addition to good-conduct pay.

Vacancies caused by men joining the second line to be filled by enlisting recruits.

(b) First line, full pay when called out, and as mentioned in answer 18 when with the reserves.

Second line, full dismounted pay when called out, *viz.*, Rs. 9-6, and when with the reserve Rs. 5.

(c) He should be inspected yearly. If his horse is not looked after, or if he misbehaves or is slovenly, the commanding officer could order him back to head-quarters, and let another volunteer go in his place.

After three years in the reserve he must return for three years with the colors; and so on until 15 years' service, when he can be sent *volens* to the dismounted reserve if unfit for hard work.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I do not think a second class would be worth its cost.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

(a) Yes; I think that if the reserve system is decided upon, it would be most advisable, as a measure of economy, to carry it out to its fullest extent, in order that Government might get the worth of the money disbursed annually in pensions.

(b) I would make no difference in pay, whether the man was in the first class or the second. Whether called out to fight or to do garrison duty, the man would in either case have to give up any employment he might have got; and though in the former case the work would be harder, and the risk greater, still I think most soldiers worthy of the name would prefer the excitement of active service to the monotony of garrison duty.

(c) Eight years with the first reserve and eight with the second, making a total of thirty-one years' service, after which the man should be entitled to his pension.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

(a) Yes.

(b) The pay of the first class, Rs. 3 a month. That of the second class, Rs. 2.

(c) Five years in each.

Major A. R. Heyland, 1st Bombay Light Cavalry.

(a) No; not at present, nor until the success of one class of reserve be ascertained.

20. What percentage, if any, would you propose to retain for long service with the colors; and what should be the limit of that service?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I would keep all cavalry soldiers 14 years with the regiment, supposing them to be enlisted at 18; but I should prefer their being enlisted at 17, as they are generally in the riding school and drills for the best part of a year, and the younger they enlist the better riders they become; and enlisting very young they develop better on better feeding.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

I prefer the present system of entertaining men for service, with pensions after 15 years if physically unfit.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I would keep all good soldiers with the colors till they have earned their pension. Good men should not be drafted away from their regiments who are willing to remain.

As I have before stated, the ranks of the reserve would probably be soon filled up by excellent soldiers, whose private affairs often cause them to leave their regiments after short service.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

No sowars should be retained after 14 years' service with the column. Non-commissioned officers should be permitted to remain up to 20 years, and commissioned officers up to 25 years' service, after which periods they should in all cases be passed into the reserve to complete their service for pension.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

There are some sowars who at 12 years' service are in their prime, and whom it would be a pity to lose. They should be kept for promotion. But these should not exceed 10 per cent.; and their long service should not exceed that permitted to non-commissioned officers, which would, I think, be advisedly fixed as under—with service troops 18 years, with reserve 14 years.

Brigadier-General C. J. Golby, Commanding Punjab Frontier Force.

Under the system I propose, those men would serve continuously with the colors who had not volunteered, or had not been sent to the reserve for three years.

Colonel T. J. Kennedy, 2nd Punjab Cavalry.

I am not sure that I understand this question. I would retain the whole of the first reserve for service with the colors until pensioned, or transferred to the second class if such is formed.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

I think that if 15 years was fixed as the period to serve with the colors, it would be unnecessary to retain any of the men for long service. The only exception I would make would be in the case of exceptionally valuable non-commissioned officers and very special cases amongst soldiers, which should be brought forward as they occurred on their own merits.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

I would be inclined to have the percentage subject to the wishes of the men, their health, character, and the opinions of the commandant and the medical officer; but I would limit that service to 15 years, except in the case of non-commissioned officers, when they might be kept on till 20 years' service.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Two-thirds of the present army with the colors, one-third with the reserve; the limit to the total service in both being as at present until they can claim pension after 32 years' service, or as soon as they are found unfit for further service.

21. How many days' training a year should he have?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

One month, I think.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

Replied to in answer 16.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

Thirty days' training per annum would be sufficient, and at such seasons when the claims of agriculture are least pressing.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

Thirty days would be quite sufficient, during which time and whenever called out he should get full pay.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think the reserve men should be called out every other year at least, if not every year. They should be put through riding school, musketry course, field movements, and outpost duty. These cannot well be done, even by well-trained soldiers, under two months. The reserve should have no holidays while in training. The service troop men might be allowed liberal leave, so as to make room for the reserve men in the lines.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

He should have three weeks' training, receiving full pay for the time. Regimental head-quarters would be the most preferable place for the men to assemble. Any man absenting himself should be discharged, unless he produces a medical certificate. They should be thoroughly inspected, and men and horses unfit should be dealt with as those with the regiment.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

During the whole or part of December and January of each year,—the universally acknowledged leisure time of farmers in India.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

A month's training at such a season as would interfere as little as possible with agricultural pursuits.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

Thirty days' actual drill. I think his travelling expenses to and from the head-quarters of his regiment should be defrayed by Government.

Major A. R. Heyland, 1st Bombay Light Cavalry.

A few days after every quarterly muster in the cold season.

22. Where should the arms, clothing, and equipment of the reserve man be kept?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

The arms should be left with the nearest military post, but the equipment should, with the clothing, be kept by reserve men.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

Replied to in answer 16. Carbine with his regiment; the rest in his own keeping.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

At the reserve centre of the district.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

His clothing and equipment he should take away with him and be made personally responsible for.

His arms should be lodged, under British custody, at the nearest available point to the local regimental head-quarters.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

Brigadier-General C. J. Golby,
Commanding Punjab Frontier
Force.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

Lieutenant-Colonel C. La
Touche, Commandant Poona
Horse.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

Major A. R. Heyland, 1st
Boulay Light Cavalry.

The clothing should be with the men at their homes; the arms and accoutrements at regimental head-quarters. Government would have to build good store-rooms for their reception.

They should be lodged in the regimental store-room, or in an arsenal, should there be one at his station, and given out when the men assemble for drill or service.

Of arms, the man should himself keep a spear and a sword, in the practice and use of which he should perfect himself, and keep himself so. His carbine to be kept at his training station, and a portion of the two months (or less) named be devoted to musketry.

Of clothing, the man should himself keep up the turban, *kummur-lund*, and summer uniform of his regiment (he can always wear any amount of underclothing for winter), and riding boots or ankle boots or Native shoes and *puttees* and spurs, and keep himself and his horse equipped efficiently without reference to his regimental pattern.

At regimental head-quarters, provided permanent head-quarters for each regiment was determined on; otherwise at the head-quarters of the division in which the regiment might be serving. In the former case it would be necessary to have some public building for their safe custody, and a couple of lascars to look after them. The only danger of the regimental system would be the chance of the arms in the event of a mutiny being seized; but if the ammunition was kept in the Government arsenal, the evil effects of this would be reduced to a minimum.

The arms, clothing, and equipment are the property of the men (excepting the carbine) in the Sind Horse. During the five years they are in the first reserve these might be kept at the head-quarters of the regiment. After they pass into the second reserve they should be kept at the garrison, where the men would have to perform garrison duty. When the men obtain their pensions, these articles should be priced by a board, and the adjudicated value paid to them, as is now the custom on men being invalided or taking their pensions.

Arms, saddlery, and accoutrements at regimental stores, either head-quarter or detachment; and clothing kept by reserve man.

23. Have you any suggestions to offer as to the employment of the reserve men in the police, or in other posts under the civil administration?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

I think it would be an advantage if reserve men were employed by the police, provided they were entertained on condition of their being at liberty to fulfil their reserve conditions. Employment under the Government in any capacity, I think, would be an advantage, provided they are at once set free when required for reserve duties.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

Most cavalry soldiers are raised from the agricultural classes, and the reserve men would naturally be living at their villages, farming. If they could be utilized in some way as village police, or on duties that would not call them away from their agricultural labors, it would make the system less costly, and would not be repugnant to the men.

Colonel Hugh Gough, Com-
manding 12th Bengal Cavalry.

No; I do not think it advisable. The reserve men should know and feel they are essentially soldiers.

Should, however, a second class reserve be eventually decided on, these men might be made available for civil or police duties.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

The employment of reserve men under Government in civil capacities would be found to be inconvenient, as a sudden call for their military services would throw civil business out of gear.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

If the sildalar system be retained, the only possible way of forming a reserve is to draft the reserve man into the police, and let him go, arms, horse, and all. But even this is not practicable to any great extent, as the number of mounted police is small, and no great reserve could find employment in it. Moreover, on the reserve being called out, the mounted police would vanish. Under the system which I will hereafter submit, reserve men might to a certain extent find places as either mounted or foot policemen.

Captain M. G. Gerard, 2nd
Central India Horse.

Appointments as chuprassis to civil and military offices might be exclusively retained for reserve men, or for soldiers of over 15 years' service of good character, who, though still strong, had lost nerve, &c. After 10 or 15 years in latter capacity they would receive their military pension.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

No; I have none. I am afraid it would not do. The civil authorities would not like the men going away for three weeks every year, or to join their regiments in time of war or popular disturbances. They would be much hampered by the men all leaving and at the same time.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

I think this might lower the desirable tone of the reserve, and it might on a sudden call withdraw all the police, &c., from a district. I would at first, whilst the reserve is an experiment, keep it for its own purpose alone.

Lieutenant-Colonel C. La
Touche, Commanding Poona
Horse.

I would have the entire rank and file of the police force composed of old soldiers. When a man's time arrived for being drafted into the reserve, I should give him the option of joining the police, Government thus saving his reserve pay. I would also allow men of good character to join the police at their own request before their time for the reserve had arrived, provided there were any vacancies for them. Old cavalry soldiers should be drafted into the mounted police. I would also hold out encouragement to old soldiers to qualify themselves for posts in civil administration, and make a point of giving them the preference, provided they were men of good character and were fitted for the work required of them. I think measures of this kind would tend to make the reserve system much more popular than it would otherwise be; and I am an advocate for introducing them to the fullest extent. I would even utilize the services of pensioners to fill the positions of chuprassis, who occupy such a prominent position in the establishment of civil officers.

Lieutenant-Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

I do not think it would be advisable to employ them in any department where their withdrawal for active service, to which they are liable in the first reserve, would throw that department out of gear. During their five years in the second reserve they might be employed as police chuprassis and other similar positions, when their pay would thus be saved to the military expenditure; and it would be an inducement to men to enter the service with the certainty that, if well behaved, they would be considered to have a prior claim over candidates who had never served. I think the employment of old soldiers in this way would make the service far more popular than it is.

Major A. R. Heyland, 1st Bom-
bay Light Cavalry.

Any half-pay reserve man should be allowed to accept, with permission, any employment suitable to his rank which would admit of his quarterly mustering and drilling, or of his joining his depot or regiment during war.

24. Where should the reserve man undergo his annual training?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

At the nearest military post.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

Replied to in answer 16—with the nearest cavalry regiment.

Colonel Hugh Gough, Com-
manding 12th Bengal Cavalry.

At the reserve centre of his district, unless his regimental head-quarters are stationed there, where of course he would join for his annual training.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

He should undergo it at the head-quarters of his original or line regiment.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

Beyond any doubt at the head-quarters of his own regiment. All reserves should be strictly regimental; but men might be exchanged of course from one regiment to another, as at present.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

The place of rendezvous to be fixed by commanding officers—either regimental head-quarters or some other convenient central place. Regimental head-quarters are preferable. Should the place fixed not be at head-quarters, an officer of experience, not under a squadron commander, to be sent to inspect and drill them, accompanied by assistant drill instructors. If the regimental medical officer could be spared to inspect the men, so much the better; otherwise some other medical officer near at hand should inspect each man carefully and report to the commanding officer. The commanding officer might himself go if he could be spared.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

This might be left optional with the man, as an experiment. He might prefer to join his former regiment, or he might wish to join a party of reserve men of his village or district to some particular training station; or he might, and probably would, prefer joining the training station nearest to his home.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

With the head-quarters of his regiment, if possible.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

While in the first reserve, with the head-quarters of his regiment; while in the second, at that station where his services would be required for garrison duties.

Major A. R. Heyland, 1st Bombay Light Cavalry.

With his regiment, or with a detachment of his regiment in the cavalry and in local corps; or in the infantry, with the nearest regiment or detachment of a regiment belonging to the same presidency.

25. Would the reserve system be popular with the Native army?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I think the reserve system would be popular with the Native army, if the men are fairly remunerated for their services.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

If fair terms were given, I have no doubt it would be popular; but I don't see any, or at least very small, advantage in keeping up a cavalry reserve, unless horses are maintained.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

Yes, I think it would; but as Natives, and especially Native soldiers, are apt to look doubtfully at least on all changes, should recommend the reserve system being only gradually applied; and at first to only such an extent as the exigencies of the State may require in completing regiments to service strength on necessity until it is seen how the system works.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I have often conversed with Native soldiery on the subject of localization of regiments with reserves; and have met with universal expressions of hope that such a system might one day be adopted. There can be no question of its popularity.

Major O. Barua, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think so, but am not positive. The best soldiers would wish to stay on for promotion; and these I propose to allow to do so. With great numbers, more especially landowners, it would be highly popular.

Note.—It would be a good plan to draft proposed rules for reserve and pension, and to submit it to commanding officers for consideration, together with intelligent Native officers.

Captain M. G. Gerard, 2nd Central India Horse.

Only if highly paid: *vide* answer 16.

Captain A. H. S. Neill, Central India Horse.

I do not think so.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

I am given to understand that it would be very popular, and that half the regiment would volunteer to get Rs. 5 net pay and do nothing, rather than Rs. 9-6 with regimental duty. I sometimes think it would even be popular if Rs. 4 only were given in addition to good-conduct pay.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

It would be popular with owners of land (and they alone are to be thought of on the pay proposed), because a soldier then would return to his home in mid-life instead of the broken or old man he is at present on his return.

The majority of those accepting the service would be Jats, Sikhs, and Hindustani Rajputs. The system should be that of Runjeet Singh's gorchurras, who at short notice would join the Maharaja's standard mounted, armed, equipped, and provided with carriage for their own requirements.

Let those be the chief conditions, and their fulfilment on his pay the man's own arrangement and responsibility, subject to judicious inspections. Then let the question of pay be carefully gone into, in consultation with good soldiers who appreciate the scheme; and let the pay be fixed with reference to the smallest amount of acreage that will admit of the conditions without pinching the man in the worst seasons. I think men would prefer, when called out for service, to join if possible their own regiments, where they are known; and I refer to this belief in my mention in answers 2 and 11 of a regiment's own reserve.

On a man's application for transfer to the reserve, his statement of his land possessions should be verified.

There should be as few additional conditions as possible; and I would have no accounts with a reserve man beyond that of his pay.

A staff of British officers to inspect, train, and pay the reserve might be desirable. There may or may not be a sufficient number of large landowners in the army to accept the conditions on less pay than I have stated.

My regiment would, I think, supply some 80 men on the terms stated; and if this is a fair average, 25 regiments would give 2,000 men, or say one troop per regiment.

When called out on service, the reserve should receive the full pay of the rank in which they left their regiment; and the same might perhaps be granted during training.

Colonel J. Blair, v.o., Commandant 1st Bombay Lancers.

I do not think it would; for Native officers and men generally after a lengthened period of service look forward to settling down in their own country, buying fields, and turning agriculturists.

Lieutenant-Colonel C. LaTouche,
Commanding Poona Horse.

This at present must be more or less a matter of speculation. My own opinion is, that at first candidates for the rank might be a little suspicious, but that eventually, when they found that the alternative of enlisting under the new condition of service was to abandon all ideas of a military career, recruits would be as abundant as they are now.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

I think so, if the pay and advantages suggested be secured them.

26. Have you any suggestions to make regarding the Native army which would increase its efficiency while diminishing expenditure, or at least without adding to it?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

I certainly have no suggestion to make regarding the Native army which would increase its efficiency whilst diminishing expenditure. I know, if my own views were adopted, they would involve heavy expenditure.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

I think the present Native army a very efficient machine, and that it would be difficult to improve it without adding to its expense. I mean particularly as regards its regimental organization; but I believe much might be done in the way of improving commissariat department and reducing expenditure, because it seems evident contractors make large sums in a very short time; and this might be saved to Government by good management.

Colonel Hugh Gough, Com-
manding 12th Bengal Cavalry.

I am not prepared to offer any detailed scheme on this subject.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

I have no suggestions to make which do not involve a complete change of the present organization to one of localized troops with reserve. Such a system would diminish expenditure, while it would in many ways increase efficiency. Better recruits would be obtained; local horse-breeding operations could be encouraged; *esprit de corps* would be fostered. It would be possible to organize an economical and efficient system of regimental transport. Drill and general instruction would go on systematically and continuously, instead of spasmodically; and the conditions most favorable for the loyalty and contentment of the Native soldiery would be attained.

Major O. Barnes, Officiating
Commandant 10th (Duke of
Cambridge's Own) Bengal Lancers.

Yes; I have done so in a separate paper, subjoined:—

I have said that the silledar system is almost, if not quite, a bar to the formation of a reserve for the Native cavalry; and I have given my reasons for this. It is, moreover, in some respects very expensive. It has of course the very great advantage of making the Native cavalry independent, and saving Government a vast amount of trouble; but I think the suggestions offered below, while diminishing the expense, will impose no extra work on Government servants, and will make a regiment more efficient. The reason why the silledar system is expensive is this—Government looks on the man and his horse as one unit; they are never separated. Now men will fall sick; they require leave and furlough; they get detached from the regiment for a time, longer or shorter; they take dismounted duty, &c. All these men have no need of horses; and in fact the care of horses of such men is an absolute nuisance in a regiment. The animals stand in the lines doing nothing. I wish to save the expense of this; and I think the following will do it.

In the first place, abolish the silledar system. Government would have to repay the men the value of their horses, saddlery, and stable gear, which would be a considerable outlay at first; but this is the only drawback I know to the scheme. In peace time sowars would be well with 80 per cent. or less of their own strength in horses, and in war with 90 per cent. I do not propose to throw the burden of feeding, accourting, and tending the horses on Government, nor of purchasing the horses. The whole should be managed regimentally, as at present. The allowance at present paid to the sowar for purchasing, feeding, and clothing his horse, and making and repairing saddlery, should be drawn and formed into a fund, which should be administered regimentally. The men's pay would be kept in reality as at present. A sowar's pay is made up of the following items:—

	Rs.	A.	P.
Horse allowance	15	0	0
Chanda	2	0	0
Shoeing and medicine	0	10	0
Pay	9	6	0
	27	0	0

I propose then that a sowar should draw Rs. 9-8 monthly, supplying himself with clothing and arms only.

Rs. 15-10 should be passed monthly for each horse maintained in the regiment; and with this sum he should be fed, clothed, and shod, and the saddler maintained, as at present.

The two rupees for chanda would be passed into the remount fund, the regiment drawing nothing from Government for horses purchased. By this scheme no extra charge whatever is made against the Government, while idle horses do not exist, and of course are not paid for.

The following tables show the cost (A) of a regiment as at present constituted, (B) of one as proposed on a peace footing, (C) of the same on a war footing, (D) of the reserve:—

A.
Regiment as at present constituted.

BRITISH OFFICERS.				Rs.	Rs.
1	Commandant, lieutenant-colonel	...	...	1,528	
1	Squadron commander (major)	...	...	940	
1	" " (major)	...	...	850	
1	" " (capt.)	...	...	554	
1	Squadron officer (capt.)	...	...	524	
1	Adjutant (lieut.)	...	...	525	
1	Squadron officer (lieut.)	...	...	875	
1	Medical officer, surgeon-major	...	...	890	
				6,186	
				8	
NATIVE OFFICERS.					
1	Ressaldar	...	...	300	
1	" "	...	...	250	
1	" "	...	...	200	
1	Ressaidar	...	...	150	
1	" "	...	...	135	
1	" "	...	...	120	
2	Jemadars, at Rs. 80	...	...	160	
2	" " at " 70	...	...	140	
2	" " at " 60	...	...	120	
1	Woordie-major...	...	...	150	
				1,725	
NON-COMMISSIONED OFFICERS AND MEN.					
54	Duffadars, at Rs. 38	...	...	2,052	
6	Trumpeters, at " 34	...	...	204	
384	Sowars, at " 27	...	...	10,368	
				12,624	
				457	
Total cost				20,535	

In this table, counted as fighting men, are the following really non-combatants:—

- 1 Salutrie (duffadar).
- 2 Schoolmasters (sowars).
- 6 Camel sowars.
- 9 Farriers (sowars).

18 men in all, who are useless as soldiers.

B.

Cost of proposed regiment on peace footing.

BRITISH OFFICERS.				Rs.	Rs.	HORSES FOR NON-COMMISSIONED OFFICERS.			
1	Commandant (lieut.-col.)	...	...	1,528		54	As above at Rs. 17-10	952	Rs.
1	Second-in-command (major)	...	...	940			per mensem	1,985	
3	Squadron commanders—	...	...	Rs.		270	Sowars, at " " 9-8	2,565	
	1 Major	...	...	610		6	Camel sowars with camel, at " " 20-0	120	
	2 Captains	...	...	743		1	Salutrie	25	
	3 Staff allowance at Rs. 200	...	...	600		9	Farriers, at " " 10-0	90	
				1,988		216	{ 80 per cent. of horses per sowars. }	2,800	6,507
3	Squadron subalterns 225+150	...	...	1,125			{ Horses, at Rs. 17-10 each }	3,707	
	× 3=1,125	...	...	525					
1	Adjutant (lieut.)	...	...	525					
1	Medical officer	...	...	890					
1	(Staff officer) say	...	...	600					
				7,596					
				11		TOTAL STRENGTH OF CORPS.			
NATIVE OFFICERS.						British officers	...	11	
13	Same as in table A. (including horse allowance)	...	...	1,725		Native officers	...	12	
NON-COMMISSIONED OFFICERS AND MEN.						Non-commissioned officers	...	54	
1	Duffadar-major	...	...	Rs. 40-0	Rs. 40-0	Rank and file	...	286	
1	Quartermaster duffadar	...	...	35-0	35-0				
6	Kots duffadars at	...	...	20-8	123-0				
19	Duffadars at	...	...	20-8	389-8				
21	Naib duffadars at	...	...	16-8	346-8				
6	Trumpeters at	...	...	16-8	99-0				
				1,033					
				54		with 283 horses=17,813			

In the foregoing tables I have not taken into consideration allowances, nor hospital and other establishments, which would be the same in all cases.

C.

Cost of a regiment on a war footing.

Peace footing as in table B	Rs.	17,813
Men called in from the reserve as under—		
1 British officer (lieut.) 225 + 150	Rs.	375
NATIVE OFFICERS.		
1 Ressaldar	Rs.	120
1 Jemadar	Rs.	60
		180
NON-COMMISSIONED OFFICERS AND MEN FOR DEPÔT.		
1 Kote-duffadar (including allowance)	Rs. 29-8	
1 Trumpeter	Rs. 16-8	
2 Farriers, at Rs. 10	Rs. 20-0	
		651
NON-COMMISSIONED OFFICERS AND MEN FOR SERVICE.		
6 Duffadars, at	Rs. 20-8	123
12 Naib duffadars, at	Rs. 16-8	198
174 Sowars, at	Rs. 9-8	1,653
3 Farriers, at	Rs. 10-0	30
		2,004
194 Mounted men, 90 per cent. horses, say 175.		
175 horses at Rs. 17-10		3,140
Add increase of horses from 80 per cent. peace to 90 per cent. war establishment.		476
Difference between 216 and 243=27 : 27 horses at Rs. 17-10		
		24,639
Total war strength would be—		
12 British officers.		

15 Native	} 554 Native.
74 Non-commissioned officers and trumpeters	
465 rank and file	
485 horses exclusive of Native officers' horses.	

D.

Showing cost of reserve in peace time while not called out for training.

	Rs.	Rs.
1 Ressaldar	20	20
1 Jemadar	10	10
1 Kote-duffadar	7	7
6 Duffadars at	5	30
12 Naib-duffadars at	4	48
1 Trumpeter	4	4
179 { 174 Sowars		at 3 monthly 537
{ 5 Farriers		
		656

To this would have to be added the cost of an establishment for the cleaning of arms and saddlery of reserve men with the head-quarters, say two men at 5 each per troop—

12 Lascars at Rs. 5	Rs.	60
Total monthly cost	Rs.	716

The cost when called out for training would be as under:—

1 Ressaldar	Rs.	120
1 Jemadar	Rs.	60
1 Kote-duffadar	Rs.	29-8
6 Duffadars, at Rs. 20-8	Rs.	123
12 Naib-duffadars, at Rs. 16-8	Rs.	198
1 Trumpeter	Rs.	16-8
174 Sowars	Rs.	1,653
2 Farriers	Rs.	50
12 Lascars	Rs.	60
		2,310

The cost of a regiment as proposed, compared with one as at present constituted, is then as follows:—

Present system, monthly	Rs.	20,535
Proposed system—		
Peace footing ... { when reserve not called out for training ... 17,813	Rs.	18,529
Peace footing ... { when reserve is called out for training ... 17,813	Rs.	20,123
Peace footing ... { when reserve is called out for training ... 2,310	Rs.	24,639
War footing—The whole called out and mounted	Rs.	24,639
To appreciate these figures the strength of the two systems must be shown:—		
Present system { British ranks	Rs.	8
{ Native	Rs.	457
		465
Proposed system { British	Rs.	12
{ Native	Rs.	554
		566

Thus we arrive at the desired result. We have a regiment capable of being reduced during peace time to the lowest scale at which garrison duties can be carried on, and of being raised at once on war breaking out to 100 in excess of present invariable strength. The British officers have been

increased in strength and efficiency, the drill of the regiment provided for better than at present, a monthly saving of Rs. 2,000 effected during peace and the non-training season, with a small saving when the whole corps is in training. In war time the 100 extra men are raised at a saving over the present cost.

	Rs. A.
Now each individual costs	44 2
As proposed he will cost monthly	43 8

In peace time the total cost of each individual will be reduced to Rs. 32-11.

These are the figures without altering the present ruling rates of pay; but I would advise the following slight increase. Sowar's pay from Rs. 9-6 to Rs. 10 monthly, and also the following allowances. In British regiments rough-riders and drill-masters are highly paid, but most unaccountably; in Native regiments they get nothing. Surely a man who helps to train the corps should get more than the man he trains. I think then the following staff allowances should be passed as a matter of justice:—

	Rs.
1 Drill-duffadar, monthly	8
3 Naib-duffadars, monthly	4 each
6 Sowars (1 from each troop), monthly	2

The total cost is only Rs. 32 monthly; and it is surely well earned by the men.

For the above scheme I think I may fairly claim many advantages; but no doubt the following are disadvantages:—

- (1) The cost of taking over the horses, saddlery, &c., at once.
- (2) The purchasing the 202 horses at the outbreak of a war.

Against the first, I urge the very considerable saving of expenditure and increase of efficiency.

Regarding the second, I would remark that there is no real difficulty in the matter. As all the horses of all the regiments would be Government property, and as all the regiments would not be ordered on service at the same time, the requisite number of horses might easily be drafted from one corps to another, the corps remaining behind providing horses at leisure. The 202 horses, whether bought by the corps going on service or by the corps which gave it its horses, would of course have to be paid for by Government, as no allowance for their purchase has been made. When peace is concluded, these horses would be at the disposal of Government, as they would not be required on a peace footing.

On a war over the frontier, such as in Abyssinia or at Malta, or lately in Afghanistan, accounts would be much simplified by Government feeding and clothing the horses (as practically it did on all the occasions quoted), and the Rs. 17-10 horse allowance not being drawn by the regiment.

The advantages of the system are that, on the proclamation of war, a war machine is set in motion, thoroughly in order in all its parts, without confusion and without trouble. Real soldiers take the place of raw recruits. For the proper working of this system, I think it, though not actually necessary, still highly to be desired, that the regiment should have a permanent head-quarters. The reserve men would then be called in without trouble, and would join in three days at the outside.

If a permanent head-quarter is not sanctioned, the trouble, expense, and loss incurred by moving the arms and accoutrements of the reserve would be great.

Another strong argument in favor of this proposal is the avoidance of the disgraceful arrangements at present ruling regarding the supply of grass to the Bengal cavalry in cantonments. I think I may safely say that in most stations the grass of the entire regiment is stolen.

Practically there are no rukhs; those I know are too far off to be of service, and the grass in them is worthless. The grass-cutters, therefore, steal the grass either off the highroad or from some zemindar's land. The incessant squabbles arising from this mode of obtaining supply are disgraceful. The horses, however, must be fed; and this is how they are fed. With a permanent head-quarter, a good rukh should be provided, which the corps should cultivate. A good supply of grass would then be easy. Moreover, stable-litter now wasted would be utilized; and a small stud or supply of remounts might be started.

If the class-regiment system were adopted, a little care would have to be taken that regiments stationed near each other were not of the same class, so as to avoid clashing of interests. Lahore, Sialkot, and Jhila, for instance, might have three different classes, and so on. I daresay that at first the system might not be so popular as the present silledar system. Men now, when supplies are cheap, make a good thing of the service—those at least who have the hard cash to pay down the cost of their assamee; but those who have to borrow the money would find it better for to enter a corps where they have nothing to pay, even though the savings are much smaller. A local corps and a class corps would, I feel sure, in the long run be vastly more popular corps than the best silledar corps now existent. The men would always be near home, and would be saved the ruinous expense of marching and taking over lad lines, &c., in exchange for good ones.

On war breaking out, say on the Khyber frontier, the working would be something as under.

It is not wise to employ Pathan against Pathan. Therefore a Pathan corps stationed at Rawal Pindi, say, will not be sent on service. A Ghakkar regiment from Jhelum will be ordered on service. The reserve will be called in; recruits will be left with the officers and men for their training at the regimental head-quarters, and the corps will at once march to Peshawar. On arrival at Rawal Pindi, it will take over the required number of horses from the Pathan regiment and go on its way—a regiment of trained soldiers fitted for the country in which the war is to be waged. I see no reason why this should not all be done quietly and without confusion within a week.

The training of the recruits would not be interfered with, but would go on during the war at the permanent head-quarters. Every man with the regiment in the field would thus be available for soldier's work; and as vacancies took place they would be filled, as fast as men could be trained, from the depot.

Captain M. G. Gerard, 2nd
Central India Horse.

(a) As it is desirable to encourage retirement of sowars after 40 years of age, instead of seniority being considered a claim for promotion, no sowar to be eligible for it (rare exceptions admitted) after

15 years' service. Each man to be allowed to present himself for examination by his squadron officers, as detailed in reply 83.

(b) Should rank and file be increased, instead of increasing the number of duffadars, to give allowances for proficiency in riding, *arziabai*, &c., open to all, and *re-awarded annually*. Native non-commissioned officers are slack disciplinarians, and the grade chiefly useful as a means of reward, and to provide for keeping of rosters, &c.

(c) Separate paper (A, B, C) furnished in accordance with paragraph 4 of circular.

Separate paper in accordance with paragraph 4 of Circular No. 82.

A.—CAVALRY CARBINES.

I beg to suggest that the new idea of arming all lancers with carbines is radically wrong; and that 50 per cent. carbines is ample for any cavalry.

1st.—Their dash is spoiled by attaching undue importance to firearms, either in their own or enemy's hands.

2nd.—It is seldom that even half a regiment should be dismounted, so as both lance and carbine have their opportunities, and *carried together unduly overload a sowar*: the proper armament should be front rank lance and revolver and rear rank carbine. This has been recently adopted for the Russian army. Sowars to be *exercised*, however, with both weapons; but target practice for lancers for short ranges only.

3rd.—Even if conditions of Continental warfare have so changed as to reduce the rôle of cavalry to that of mounted infantry—which, however, I do not admit—*here they have not yet altered*; and so long as they can face the fire of, and ride down, infantry, it would be the greatest mistake to employ cavalry otherwise. If storming a village or covering a retreat, you *must* have your horses properly protected, so that the only dismounted duties properly devolving on cavalry require from 25 to 40 per cent. carbines. The only moral effect of musketry-fire is the loss inflicted, while troops once broken by cavalry are utterly demoralized. Not only was this latter advantage gained in all our charges in the recent campaign, but the actual loss inflicted in a few minutes exceeded that of an entire day's rifle fire.

4th.—That firearms were employed almost exclusively by cavalry in the American and German wars is no argument that we should train our sowars so. The former not only were raw levies, and guiltless of swordsmanship, but such bad riders; they frequently dismounted to use their revolvers in the open. The German conscripts are as a rule poor horsemen, except the Poles, were never in the saddle before joining; they have a blunt steel-scabbarded sword, and, like our English regiments, have (as one of our best writers on Native cavalry says) "mistaken the whole spirit of the lance which, used as they use it, is a plaything." A large percentage of sowars are excellent riders, lance and swordsmen; but few are even average shots. A regiment of our men at loose practice would cut a German regiment to pieces, but would be easily beaten by them if they stopped to shoot.

5th.—It is waste of ammunition trying to train old lancer sowars, as we have to now.

6th.—Extra work and training with no gain to efficiency is given to all. Cavalry require a few picked shots only for long ranges.

B.—ARMY ORGANIZATION.

Our Native army being at present a safer offensive than defensive weapon, I would suggest that, without increased expenditure, and maintaining 180,000 in India, we might greatly strengthen our position as follows:—

1st.—Reduce our British force to a local or at least long service corps of 50,000, without families, which are expensive encumbrances.

2nd.—Reduce the Native army to 90,000, composed solely of the warlike races.

3rd.—Replace above reductions by 40,000 Chinese, non-Mussulman, Africans, or similar foreigners.

4th.—Form infantry into three battalion regiments of mixed races (cavalry similarly) on the class company system, *e.g.*, 1st Battalion British, 2nd Chinese, 3rd Sikhs—officers of all three on the one cadre; battalions to be kept together as much as possible, and *regimental esprit de corps* and *camaraderie* promoted by every possible means. All officers in first instance would join British battalion.

The objection to above that would be raised is that we are too openly showing distrust of our subjects; but it is no more so than restricting the armaments of Native States, and it is useless to shut our eyes to the fact that our Native army is a purely mercenary one, who, if assured of equal advantages, would as readily take service with Native princes or others. In addition to the problem of religious fanaticism, past history shows that Indian mercenary armies, in contradistinction to national ones, after defeat, would readily accept terms and transfer their services to the winning side.

Scindia's regular troops (whom so many regard as a menace) are almost to a man our own subjects from Oudh, Furruckabad, &c.; and our Deccan districts supply him with his much-trusted Mahratta artillerymen. On the other hand, his *Paigah* and *Gol* irregulars, his own subjects, if only money were forthcoming, would readily desert him in difficulties for his hereditary enemies, the Rajput descendants of their rulers of last century, the chiefs of Ragoghur, Perone, Sheopore, Barode, &c.

C.—REDUCTION OF CORRESPONDENCE, &c.

I would further venture to suggest that a great portion of correspondence and returns might be done away with, with a positive gain to the public service; and that if, instead of each petty item being checked, and each monthly pay sheet being examined in detail, merely a sufficient staff to do this occasionally and at uncertain intervals were maintained, and officers shown that Government trusted to their honor, a great pecuniary saving would result.

A modified form of the old contract system might also with advantage be reintroduced, with this essential difference, that, whilst the sum allowed, say, for line-gear with artillery, was never to be exceeded, that the surplus, if any, was to be recredited to Government, and not, as formerly, revert to the commanding officer.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

The one great thing that is required to increase the efficiency of a cavalry regiment is mule carriage for the ammunition, or for a portion of it (*vide* answer 17, Transport). The next thing is camp equipage for kahars, bhistics, sweepers, surwans, mule syces, &c., &c. I understand that Brigadier-General Macpherson made up for his brigade in the Khyber some excellent tents of khaki-dyed drill, weight 20 lbs., and accommodating four men (or six on an emergency), *i.e.* about 4 lbs.; a man. They cost Rs. 12 each, and kept out the rain well.

Pensioners residing beyond the border should have to come in when a force is sent against their tribe.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

None without some additional expenditure. Troop commanders in the Punjab cavalry keep two chargers each. Jemadars were at first under similar orders; but it has been found to press unfairly on their pay, so they were freed from the obligation.

On service inconvenience from this frequently arises; and the jemadar's services often cannot be dispensed with, and so he has to take a sowar's horse. It is recommended that on service extra horse allowance of Rs. 15 a month be sanctioned for jemadars on their providing themselves with a second charger.

Mules provided for the carriage of guard tents, ammunition, and hospital stores would add to the efficiency of a regiment.

Ponies are generally shared by two men. If each man had a pony to himself, whilst the number of ponies and syces would be doubled, there would be no need for camels and their attendants for the camp-equipage or baggage of the soldiers or syces of a cavalry regiment.

Colonel J. Blair, *v.c.*, Com-
mandant 1st Bombay Lancers.

If regiments were localized, it would be a great saving to the State and the men.

Lieutenant-Colonel C. La
Touche, Commanding Poona
Horse.

I think the efficiency of the Native army might be increased, but not without adding to the expenditure. As regards the cavalry, I consider the pay insufficient; and to make them as efficient as they are expected to be under existing circumstances, the horse allowance should be raised two and a half rupees, and the personal pay of each man below the grade of Native officer one and a half rupees. I think the system of reserves, and making use of old soldiers for the police and posts under civil administration, will materially reduce the expenditure; but I don't see how it will increase the efficiency of the army, though it may not diminish it.

Lieutenant Colonel J. H. P.
Malcolmson, Commanding 3rd
Sind Horse.

I think the system of double-battalions on the same principle as I have suggested might with equal advantage be applied to the infantry; and the officers of the battalion going on service might be added to from the second battalion, who would be well known to the men, and familiar with all the interior economy of the corps, the places of these officers being filled up by drafting in young ones.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

Yes, as regards Bombay cavalry—

1st.—The abolition of bargheers, except as recruits, and in the case of Native officers who might be allowed one each, the complications, trouble, loss of efficiency, by allowing silledars two or three *assamees*, is considerable.

2nd.—By giving an inspector-general of Native cavalry, who with a staff officer and veterinary surgeon should be required to make minute inspections of each regiment, comparing different systems of interior economy with that of regiments of the other presidencies, which he should be required to visit and make himself acquainted with. Divisional inspecting general officers cannot, as a rule, if not of the cavalry themselves, be expected to know enough of Native cavalry to make their inspections sufficiently searching.

3rd.—It is believed that silledars of the cavalry are, as a rule, men of a little money. The men of the regiment in which I have served since 1865, *viz.*, the 1st Light Cavalry, have in most cases on enlistment no more real property than the rags in which they join. Their *assamees* are nearly always purchased with borrowed money, in defiance of orders and the principles of silledar regiments; and they are for the most part in debt from the day on which they become the nominal possessor of one, two, or three *assamees*, until the day they retire on pension. To meet this difficulty, as moneyed men are not to be obtained, I would suggest loans from the regimental fund without interest, repayable by small monthly instalments, to men of good character for purchase of *assamees*, and the price of *assamees* being *fixed*, and not that which is realized at auction.

4th.—By enlisting men for the Native cavalry on probation for one year; at the end of which time commanding officers to use their own discretion in retaining or dispensing with their services without reference to higher authority.

27. Would there be any advantage in changing the titles of Native commissioned officers from *ressaldar*, *ressaidar*, and *jemadar* to Native captain and lieutenant?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I do not think there would be any advantage in changing the titles of Native officers.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

None.—On the contrary, whilst no advantage would be gained, the Native officers might get an exaggerated view of their positions, and there might be some awkwardness in their relations to subaltern officers.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I see no advantage whatever in such a change. I should entirely reserve the English titles and rank for the British officers. The Native officer should invariably be subordinate to every British officer.

Were *Captain Shere Sing* and *Lieutenant Jones* in one regiment, the former might wonder why he should be asked to serve under the latter, his junior. Yet no commanding officer would do otherwise; and certainly no British officer would care to serve under a Native. The title therefore, if it does not carry with it authority, is incongruous.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

Such a change would be in my opinion decidedly unpopular and useless.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

None that I can see; but I think, as before mentioned, the rank of *ressaidar* should be abolished. It is not parallel with any rank in any arm of the British army or in the infantry of the Native army. *Ressaldar* and *ressaidar* do the same work exactly. Each commands a troop; and each should have the same rank.

Captain M. G. Gerard, 2nd Central India Horse.

As the idea is popular with the Native officers, it would be so far advantageous.

Captain A. H. S. Neill, Central India Horse.

None whatever, but think the title of *ressaidar* might be dropped and the rank amalgamated into the *ressaldars*. Only two commissioned ranks, *viz.*, *ressaldar* and *jemadar*.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

I see no advantage in it whatever.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I think it quite unnecessary, but I recommend that the rank of *ressaidar* be abolished, and that for the six troop commanders there be six grades of *ressaldar*, on the present pay of the existing three grades of *ressaldar* and three of *ressaidar*; for there is no difference in the duties of the two ranks.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

No; I think nothing could be better than what it is at present.

Lieutenant-Colonel C. La Touche, Commanding Poona Horse.

I see no advantage in it whatever, unless accompanied with the pay and position of captain and lieutenant; otherwise it appears to me to be offering the shadow without the substance. I think Native officers of cavalry regiments are very well off.

Lieutenant-Colonel J. H. P. Malcolson, Commanding 3rd Sind Horse.

No; I think it would be better to leave them as they are.

Major A. R. Heyland, 1st Bombay Light Cavalry.

No; I am not aware of any advantage; and a probable disadvantage of so doing would be to give them an exaggerated idea of their importance and false ideas of their position.

28. Could the practice of appointing young Native gentlemen of good family to direct commissions be employed to a greater extent than at present?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I would urge very strongly the practice of appointing young Natives of good family to direct commissions, and would extend the practice; but I should like to see these gentlemen brought up in a military institution established expressly for them. Of course, the numbers should be limited of these candidates, and only selected men admitted.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

I have always been in favor of this practice to a very considerable extent, and have found it answer admirably, most of the direct appointments having given great satisfaction; and the rank and file appear more satisfied with the appointment of a Native gentleman of some position and influence of their own class to that of one from amongst themselves.

Colonel Hugh Gough, Com-
mandant 12th Bengal Cavalry.

I do not think there is any limit at present; but although there is plenty of inducement for young men of good family to come forward as candidates for direct commissions, there are not so many as one would expect, and those that do come forward are not always by any means young men who would suit the requirements of commanding officers.

A Native officer brought in by direct commission ought to be young and amenable. After a certain age, when their youth has been spent in idleness and dissipation, their military instincts are very inferior.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

I do not think it advisable to deprive deserving and intelligent soldiers of the prospect of promotion which they now have, and which is a very powerful incentive to good conduct and to professional study and improvement, by giving direct commissions to any large number of young Native gentlemen. If selections are judiciously and conscientiously made, there must nearly always be within a regiment individuals quite fit for promotion, and of such birth, character and general service as to be deserving of it.

Major O. Burnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

I will preface my answer to this question by expressing my sincere hope that one of the results of the Army Commission will be the higher educational status of the Native officer. I believe there is not a regiment in the Native army in which some troop-commandant does not every month certify to the correctness of accounts and statements which might be honey-combed with errors for aught he knew. Great pains are taken to increase the knowledge of the British officer, and with great propriety; but the Native officer is frequently a totally unlettered man. He can't read a drill-book or an order; he is at the mercy of any man who can write—and this, I think, should not be. Surely there should be some examination for promotion.

In my own regiment we have established an educational test qualifying for promotion to the non-commissioned grades; but for the commissioned ranks there is no examination. It is my opinion that no man should become, under any circumstances whatever, a Native officer unless he is a thoroughly well educated man; and if there are such in the regiment, I think it unfair to bring in Native gentlemen from outside. I have never recommended Native gentlemen for promotion unless the required man has been found wanting in the corps. I think this rule should be adhered to. If you have a properly qualified man in the corps, never promote from outside. The qualification test for promotion to Native officer should be prescribed by army head-quarters, and not by regimental arrangement, as is the case for British officers in the British regiments and in the staff corps.

Captain M. G. Gerard, 2nd
Central India Horse.

Yes; full one-third of the commissions should be thus bestowed; appointments to be strictly probationary for first year. We have now four—two direct and two commissioned after a brief service in the ranks. Two of these are the very best and most trustworthy we have; the third fairly good, and the best rider in the commissioned ranks; and the fourth a probationer.

Captain A. H. S. Neill, Central
India Horse.

Yes, if such men can be found. But the candidate should first serve a term of probation, and eventually pass some examination before a general officer before receiving his commission.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

I think it might, and I think it would, be advisable. The plan that suggests itself to me is, that candidates should be sent to do duty as supernumeraries without pay for two years; and if reported well on by commanding officers, they should get a commission on a vacancy occurring. One promotion in three might be given to Native gentlemen and two to the regiment.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

I think not. The source should undoubtedly be kept open; but it is best to leave it to commanding officers to promote their own men with claims, or to apply for a Native gentleman.

Colonel J. Blair, V.C.,
Commanding 1st Bombay Lan-
cers.

I cannot speak from experience, as we have had no such appointments made in this regiment. But I should say it could be done by making young Native gentlemen, who are aspirants for the cavalry branch of the service, undergo a regular examination, and for which purpose they should be sent to regiments.

Lieutenant-Colonel C. La
Touche, Commanding Poona
Horse.

I am very much opposed to any such system, as I consider it would be a great injustice to men who have served with distinction and credit in the regiment for years in the hopes of some day becoming Native officers. The great, indeed the only, inducement to recruits of a good stamp to enlist is the chance of some day obtaining a commission. Such prizes are few enough in a regiment, and to reduce the number would tend to disgust men of good family who now enlist, and to prevent them joining the service. The idea is, I know, in favor with some Native officers who have feathered their own nests in the British service,

and who are anxious to provide for relations and friends. In my opinion, a Native officer, who has commenced as a private soldier and has gone through all the successive grades, is much better suited for command than a wealthy zemindar, whose only claims are his wealth; and I think, moreover, that the former would command much more respect from the men. In my own regiment there has never been any difficulty in selecting from the ranks a highly intelligent and able body of Native officers to fill the commissioned ranks; and so long as the existing system continues to produce such satisfactory results, I should be very sorry indeed to be compelled to accept the services of wealthy outsiders.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

I am not prepared to give a decided opinion on this point; but from the little experience I have had, and the little I have seen, I am not sure that young Native gentlemen could be so employed at present with advantage.

Major A. R. Heyland, 1st Bombay Light Cavalry.

No. I believe we have few Native gentlemen, if any, in Bombay available for the army; and if there were any, admitting them would deprive good non-commissioned officers and men of their principal incentive to serve well and faithfully and to improvement in their profession.

Neither am I personally acquainted with any Native gentlemen who would receive more natural respect, or have more moral influence with those under them, than is given to, or possessed by, the ordinary Native officer who has risen from the ranks.

29. Do you consider that the recruits obtained for your regiment are the best procurable of the class ordered? If not, what suggestions can you make for improving their quality?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I always encourage the enlistment of sons and nephews of pensioners and of men in the regiment; and can offer no suggestion or improvement on this plan, excepting that Native officers of known good family should be encouraged to bring recruits.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

I think under the present system very good recruits can be obtained. I don't believe in any specific that would ensure the very best; it depends on those employed.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

Undoubtedly they are the best procurable. Commanding officers would naturally see to this. Still there is more difficulty in obtaining recruits than formerly, especially in the Punjab; though not very materially so, at least in my experience.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

The recruits, as a class, are very good; but this result is only attained by very careful selection, and by rejecting the greater number of those presenting themselves for enlistment. We would get the flower of the population if local class-regiments, with their own reserves, were organized.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think the recruits we got are very good, and nothing is to be desired. But we have a troop of Dogras and a troop of Jats, which have always been difficult to fill—in fact never have been full—owing (a) to their having been grafted into the corps after formation, and (b) to there being no Native officers of these classes in the regiment.

Captain M. G. Gerard, 2nd Central India Horse.

Yes.—We always have far more eligible candidates than vacancies. There are now twelve or fifteen *umchewars* staying with relations in our lines awaiting possible vacancies. No roll is now kept, as men were apt to fancy that seniority of entry gave priority of claim.

Captain A. H. S. Neill, Central India Horse.

Yes; the best procurable for the pay.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

The recruits procured are very fair; but I think still better men would take service if a fixed depôt or head-quarter was formed as suggested in answer 7.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Omitting the recruits recently entertained at the depôt, whom I have not seen, I think those obtained are the best procurable.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

The recruits enlisted, as a rule, are thin, meagre-looking on first arrival. The batch certainly this year has been very good; but we have had very great difficulty in obtaining the number required—men of poor means, as none are able to purchase *assamees*. They are chiefly agriculturists. I can suggest nothing but a wider area for recruiting purposes for improving their quality.

Lieutenant-Colonel C. LaTouche, Commandant Poona Horse.

I have hitherto had no difficulty about getting recruits, who, as before explained, present themselves for enlistment without any action on

the part of the commanding officer; and they have been, with few exceptions, of an excellent class. I am of opinion, however, that the difficulty of living on their existing pay will eventually cause a falling-off in the quality of the supply. The prices of gram and grass are now so high, and remounts so expensive, that the position of a sowar, so far as his finances are concerned, is not nearly so good now on Rs. 30 a month as it was 25 years ago on Rs. 20. A far higher standard of efficiency is, moreover, now required than was the case in the days of the old irregulars. It may be thought that the system of compensation for dearness of forage provides for the rise in prices; but this is not the case in the Bombay cavalry, inasmuch as the principle on which compensation is granted takes no account of the pay of the syce, and the purchase and keeping up of ponies. I think that if the financial position of the sowar is not improved, there will eventually be great difficulty in getting the good stamp of recruit which has always hitherto been the characteristic of the old irregular cavalry regiments. I am an advocate, so far as the cavalry are concerned, of granting great latitude to commanding officers in the selection of recruits. I think if tied down too much in the matter of locality and height, they would be very much hampered in their endeavours to keep up a good body of men. Young lads who are born-riders and have been in the saddle since childhood are the style of men for cavalry regiments; and such cannot be got if the commanding officer has to trust to such men as may be picked up here and there by recruiting parties, in particular localities, irrespective of the inhabitants of such localities being by their habits and traditions suited for the mounted branch of the service. The height now laid down, 5 feet 6 inches, as the standard for cavalry recruits is, in my opinion, a great mistake. It prevents commanding officers availing themselves of the services of excellent lads, who have been accustomed to riding since childhood. Big men are not required for our cavalry regiments; moreover the funds cannot afford to mount such. Five feet three inches should, in my opinion, be the standard height as heretofore.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

There is not the slightest difficulty in obtaining excellent recruits; but there is an order that sometimes has induced me to enlist inferior men; and that is—

When a man dies, his horse becomes riderless. Unless this vacancy is filled up in three months, the owner's horse allowance is retrenched by the paymaster; although the man is obliged to keep up his horse and everything else. Hence, rather than allow the man to be so heavy a loser for no reason whatever, I have often been less particular than I otherwise should have been. The remedy for this would be to allow the usual horse allowance to be drawn at the discretion of the commanding officer, as he is seen to fill up vacancies as quick as possible, and would have no reason for taking in an indifferent man.

I would also suggest that, under the circumstances, a regimental officer (European) should be allowed to go on recruiting duty once a year. By this means they would become known in the different districts; and recruiting parties sent under non-commissioned officers at other times would, I think, have a better class of men coming to them for enlistment, for I feel certain the European officer obtains better recruits than any one else.

Major A. R. Heyland, 1st Bombay Light Cavalry.

No; and I would suggest as a probable means of improvement in this—

- 1st.—Localization of Native cavalry regiments.
- 2nd.—Requiring from commanding officers more careful selection of Native officers, non-commissioned officers, and men for recruiting parties.
- 3rd.—Permission to enlist more foreigners.
- 4th.—And in the case of Mahrattas, class troops or companies commanded by Mahratta Native officers.
- 5th.—Probation for one year before being finally accepted.

30. Are you in favor of class-company regiments, class regiments, or mixed regiments?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

I think the present system of having regiments on different plans the best, though I should suppose a regiment of one class would be least complicated to command with impartiality.

Colonel C. J. S. Gough, 6th Bengal Cavalry.

I am in favor of class *squadron* regiments; and my reason is that, in having three different classes, you have the full advantage which the mixture of classes in a regiment insures. Principally that it is very

improbable that they would combine in case of any agitation, and also that a wholesome emulation can be kept up; whilst by having class *squadrons* instead of troops, it would be much easier to recruit, and also to maintain the due proportion of Native officers and non-commissioned officers, in consequence of having a squadron to select from instead of a troop. In such case I would recommend my regiment to be composed of—

1 squadron Mahomedans,
1 squadron Sikhs,
1 squadron Jats;

and I am sure it would be found in many ways a better system than the present one of class troops.

Colonel Hugh Gough, Com-
mandant 12th Bengal Cavalry.

I have no personal experience of mixed regiments. As regards the other two, I think class-company or troop regiments are, politically speaking, the safest; and the system seems to work well.

Class regiments have certain advantages which would naturally recommend them to the preference of commanding officers. The fact of the men being all of one nationality would probably lead to a higher feeling of *esprit de corps*. Again there is no doubt whatever that in the matter of recruiting, class regiments much more readily would find men to fill up their ranks, and probably of a higher standard of their own class, than mixed regiments; and for the reserve system, class regiments would have the advantage of all their reserve men coming from the same district or province—men, too, who would probably be nearly all brought together at their annual training, and who would also all be more quickly collected at their reserve centre or depot when the emergency arose.

There are only three class regiments in the Bengal cavalry, *viz.*—
1st Bengal Cavalry (Hindustani Mahomedans).
14th Bengal Lancers (Jats).
15th Bengal Cavalry (Mooltanees).

Two or three more regiments of one nationality would be no disadvantage.

Lieutenant-Colonel A. R. D.
Mackenzie, 3rd Bengal Cavalry.

I am very strongly in favor of regiments composed throughout of one class. The next best arrangement would be in a regiment of four squadrons for each wing of two squadrons to be formed of one class.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

Certainly in favor of class regiments. We are unfortunately a class-troop regiment; and these are the disadvantages we find in it—

- (a) unjust promotion; a vacancy falls due in one class; the best man *in that class* is promoted, while older and better soldiers of other classes are passed over, and become subordinate to a man they should command;
 - (b) clashing of interests of troops of different classes;
 - (c) back-biting and unfriendliness of occasional individuals.
- These are regimental grievances only; but the State difficulties become State dangers—
- (a) Few corps can be employed on service against any enemy or rebel without having in its ranks some clansmen of the men it is engaged against.
 - (b) The compulsory fraternity of a regiment composed of hitherto antagonistic elements practically binds the great majority of the whole Native army into one organized mass; and combinations not only become possible, but easy. The class regiments are naturally happier homes to the men; and it is, or should be, the chief endeavour of all commanding officers to make their men happy. The class corps are, and must be, more popular. You promote your best men; you hear of no quarrels; you fear no fraternization with an enemy; you know your men have no fellow-feeling with other corps except of their own class; and, in consequence of the general well-being of the corps, a most valuable *esprit de corps* is fostered, which a class-troop regiment cannot possibly have.

Captain M. G. Gerard, 2nd
Central India Horse.

Class-squadron regiments, for choice out of two former; on no account mixed regiments.

Captain A. H. S. Neill, Central
India Horse.

Class-troop regiments.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

I am in favor of class regiments. The *esprit de corps* is greater, and the difficulties of arranging for cooking on boardship less; and when the coercion of tribes of one class was necessary, the regiments of another class could be employed.

In case of a rebellion the regiment whose head-quarters were in the disturbed district should be relieved by one of another class, and removed for the time being from the neighbourhood, for fear of its sympathies being with the insurgents.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

Altogether in favor of class troops; for I think their *name* as a class, either for conduct in quarters or in the field, is of more importance to them than that of a troop of a certain number. I mean "Shabash Pathan troop" is more telling than "Shabash 1st troop." And so with misconduct. A disgrace can be attached to a class when they are in troops that would not be applicable to one man of a class in a troop of mixed classes.

The men too prefer being in class troops. But I have had very little experience of any other constitution of a regiment. A class regiment (see answer 10), other than Pathans, would on this expedition have been helpless without an interpreter; and all Pathans might, under different circumstances than those met with, have been an anxiety.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

I have had no experience in class regiments. I have, during the whole period of my service, been in regiments with mixed castes; and have found it to answer very well, more especially during the mutiny, when men of one caste were afraid of doing or saying anything wrong for fear of being found out and reported. It worked well then.

Lieutenant-Colonel C. LaTouche,
Commandant Poona Horse.

I am in favor of mixed regiments. I see no object in having class regiments or companies. Such a system appears to me to encourage class-prejudices, which should, in my opinion, in the military service be, as far as possible, ignored. As regards the argument that class regiments would enable the Government in case of a mutiny to put one set of regiments against another, I see no weight in it at all; for it assumes the impossibility of several classes rising against the Government at the same time. But even supposing that, in the case of class regiments, one set of regiments, by reason of class differences, would act as a check against another, this argument would tell in favor of the mixed regiment. For if a simultaneous combination of different castes was impossible, then a mixed regiment would be the very best security against a mutiny; for each regiment would contain within itself elements antagonistic to each other, and therefore a mutiny of a regiment would be an impossibility. Whereas if different castes were combined into different regiments, though one mass of men in one part of the country might be a useful check against another mass of men in a different part of the country, still there would be no internal influence to prevent a mass of any one particular caste rising, inasmuch as all the individuals of the various regiments composing such mass would be men of the same caste, and would be acting together. Thus, so far as I understand the matter, whilst this system of class regiments would, in the event of a mutiny, possibly furnish material from one part of the country to act against rebels in another, the mixed system would most probably prevent any rising at all. Another argument in favor of the mixed system is, that it enlarges the sphere for recruiting operations, which is a great advantage. In regiments where the class system has been in force for years, and has become a sort of tradition, I would not interfere with it; but I would strongly deprecate its wholesale introduction throughout the Native army. In short, in the mixed system, the antidote for a mutiny exists in the regiment itself; whereas in the class system it is outside the regiment.

Lieutenant-Colonel J. H. P.
Malcolmson, Commandant 8rd
Sind Horse.

I think the system adopted in the Sind Horse, of having all classes mixed up, merely allowing friends and relations to be in the same troop.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

In favor of mixed regiments in Bombay presidency, with one or two class troops or companies of Mahrattas, who are not procurable under present system, in quality and quantity, as they might and ought to be.

31. Is any arrangement possible by which Native officers of good family could bring recruits to a regiment, and maintain a certain periodical supply?

Colonel O. Wilkinson, Com-
manding 2nd Bengal Cavalry.

Here and there an officer of good family might arrange to bring recruits, but only, I think, a limited number; and I doubt it being possible to look for a periodical supply.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

No.—But a Native officer of good family and character, more particularly if connected with landed interests, is always useful in obtaining recruits. The *real* difficulty in getting cavalry recruits, and the *only* one, is the money. They all come with borrowed money; and the rate of interest charged by the money-lenders is so ruinous, that in times like the present, when everything is at almost famine prices, the recruit's balance of pay is often not sufficient to pay the interest on this debt. The only way at present of meeting this difficulty is obtaining an advance from the Government.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

I always find I obtain my chief supply of recruits through the influence of my most influential Native officers of good family and position. I see no other arrangement, without reverting to the old system of unlimited bargheers, which no commanding officer would recommend.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

There would be no want of the very best recruits if local class regiments were formed.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I don't think this question is worth troubling about. In our own regiment at least we are never at a loss for good recruits; and if we were a class regiment, the supply would be even more abundant.

Captain M. G. Gerard, 2nd Central India Horse.

From our experience it is not advisable, though in our case easily managed. Native officers are more anxious to provide for dependents than to select for physical qualifications. Our *ressaldar*-major raised a troop in the mutiny, and brings up candidates from time to time; and you often must disoblige him, or else enlist very inferior material.

Captain A. H. S. Neill, Central India Horse.

Yes.—If a Native officer had a little pecuniary interest on each *assamee* filled by his men, he would use his full influence in procuring recruits.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Native officers will always procure recruits from their own districts, if money is advanced for their horses and accoutrements. The difficulty is to get good men with money. If the family is rich, they would probably not allow the sons to take service. I don't think any fixed rule could be made. Native officers will always bring as many of their own class as they can, and in some few cases will bring relations with money.

They might be asked on going to a regiment how many men with money they will undertake to bring. Their answer will depend on their own influence and means.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I frequently employ good Native officers and non-commissioned officers to bring recruits back with them from furlough, and I have no difficulty ordinarily in regard to recruiting. But if a large number of men are invalided, it takes some time to fill the vacancies with the proper class of recruits. For such occasions I would ask that supernumeraries to the probable number of men about to be invalided be sanctioned from the 1st October of each year, being six months before the assembly of the invaliding committees, so that they may be ready to join the ranks on the invalids being struck off. Mistakes of two or three men might occur by proposed invalids being rejected; but a few supernumeraries would soon be absorbed, especially in a regiment containing Pathans.

I attach the following paper by Major Lance, second-in-command, 2nd Punjab Cavalry, on the subject of recruits:—

"The maintenance of a reserve of dismounted recruits at head-quarters, in addition to the established number of sowars, is suggested as an effective means of ensuring a regular supply of men to fill vacancies.

Five dismounted recruits per troop, or thirty per regiment, are suggested.

The pay for the first year to be Rs. 5 per mensem. Should no vacancy be available after that time, the pay to be increased to Rs. 7 per mensem till one occurs.

The men to provide themselves with undress uniform, and to be liable after passing their drill to perform such duties as the commanding officer may deem suitable.

An establishment of horses, in the proportion of one horse to every three recruits, would have to be maintained for their instruction in riding and mounted duties.

These horses might be provided and kept through the agency of the regimental chanda, a first grant of Rs. 200 being made for each horse, and a monthly payment of Rs. 10 to cover all expenses of feed, accoutrements, gear, and renewal of horse when necessary,—compensation for dearness of provisions being drawn as for other regimental horses.

The commanding officer to have the option of enlisting direct as sowars any men of family, or others who would not take service first as dismounted recruits, which, it is believed, most candidates for service would gladly consent to do.

Dismounted recruits to be eligible for transfer to other regiments on an emergency.

The advantages of this system appear to be—

First, that every regiment would be always up to its full strength of sowars;

Secondly, that these sowars would all be fully trained soldiers;

Thirdly, that on the outbreak of war, in addition to these two great advantages, seven hundred and fifty men, either fully or partially drilled, would be present with the cavalry regiment of Bengal and the Punjab Frontier Force, either to provide for immediate augmentation or to fill vacancies;

Fourthly, including the cost of maintenance of horses, three dismounted recruits could be kept at the cost of one sowar;

Fifthly, many of the dismounted recruits would be available to reduce the heavy night duties of sowars, which have been found to materially affect the percentage of sick.

F. LANCE, Major,

Second-in-Command, 2nd Punjab Cavalry."

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

Yes; I think arrangements could be made to get men from the Deccan and other districts, if it were generally known throughout that Government would give commissions to rajas' sons, thakurs or their

sons, and to jemadars of villages. These men, when once enlisted as Native officers, would, I am sure, be able to assist in keeping up a supply of men from their country.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

Such an arrangement is quite possible, and has existed for years in my regiment, not only as regards the Native officers, but the non-commissioned officers and men. All that appears to me to be necessary is, that commanding officers in making such arrangements should receive the support of the military authorities, and that they should not be tied down too much as regards locality and height.

Lieutenant-Colonel J. H. P. Malcolmson, Commanding 3rd Sind Horse.

I do not think it would be a wise measure, as it would, I think, give an undue and undesirable influence over the men they brought.

Major A. R. Heyland, 1st Bombay Light Cavalry.

No.—Nor would I recommend it.

32. Are you in favor of cavalry pioneers; and how many men would you train per regiment?

Colonel O. Wilkinson, Commanding 2nd Bengal Cavalry.

Yes; I think half-a-dozen pioneers to each troop should be maintained.

Colonel O. J. S. Gough, 5th Bengal Cavalry.

No.—I am not in favor of regularly-trained pioneers, who would be expected to *perform* at the annual inspection of the regiment; but I think a mule-load of pioneer tools might with advantage be served out, and would be very useful to regiments on service. The men understand the use of picks and shovels sufficiently well without any particular training, and the pioneer tools that have been sent out to regiments as specimens are worse than useless—mere play-things to suit toy-soldiers.

Colonel Hugh Gough, Commanding 12th Bengal Cavalry.

I tried the system during the late campaign, and am of opinion it would answer admirably as occasion might require. Six men per troop are ample; but the tools should be of a superior quality than those furnished last year.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

I would train five men and one non-commissioned officer per troop, or 48 per regiment of four squadrons; and I would place the whole party under a specially trained Native officer. The instruction of all should be entrusted to a selected European officer.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

Yes; I think every corps should be as complete as possible. At the same time cavalry are not so much required to construct as to destroy; and while I would not neglect the pioneers, I would pay more attention to a demolition train. Railways, telegraphs, bridges, should be capable of destruction by a troop of cavalry. I think four pioneers per troop should be trained. Special instruction should be given in the use of dynamite and petards and mines. Instruments for uprooting and twisting rails, cutting wire, &c., would be useful if employed against civilized enemies.

Captain M. G. Gerard, 2nd Central India Horse.

Yes; provided tools are carried on pack-mules, of reasonable size and of style adapted to Natives. Those issued for Cabul were a useless encumbrance to the men.

About 12 per squadron=36 with present regiments should be trained. Destruction rather than construction should be their peculiar province; and dynamite, portfires, &c., should form part of equipment, as in Germany.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

I would train the whole regiment to a certain extent; and whenever the regiment paraded, 8 men per troop, *i.e.*, 48 per regiment, should be told off to carry the entrenching tools, and form one complete force on the inner flanks of troops.

Should a squadron be detached, they would take their 16 sets of tools with them.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Yes; and if decided on, I think that by degrees every man in a regiment might be trained to ordinary pioneer's work. In my experience of a few men trained for a particular work their presence in the ranks when wanted can never be assured without giving them a separate roster from the other men for detached and even line duties.

Colonel J. Blair, *v.c.*, Commandant 1st Bombay Lancers.

Yes; I would have, as at present, 6 per troop, 36 in a regiment; but to make them more efficient, and to have a thorough knowledge of their work, they should be sent for six months to the sappers and miners;

for, as it now stands, it is quite impossible to get the men together (for Adjutant-General's Circular No. 202 C.T. says that pioneers are to perform all duties as other men) on account of outpost and other duties, which take the men away in their turn for a month.

Men, to be thoroughly taught, must be brought together at least four times a week. I would suggest that the matter be left entirely in the hands of the commandant, and that the men should have certain privileges allowed them.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

I am in favor of the principle of mounted pioneers. My only objection to them in cavalry regiments is, that the men have already so many other duties to perform, that I consider it inexpedient to add to them. I am in favor of a system of mounted sappers, who should be attached to cavalry regiments as occasion may require. On the outbreak of hostilities such men, from the very superior training they would have received, would be more effective than a few cavalry soldiers, who had but a mere smattering of sapper knowledge. If it is decided that cavalry must arrange for their own pioneer work, I think the men selected should be sent to the sappers to undergo a regular course of training which they would never receive properly regimentally. I would, however, far prefer to see the system of mounted sappers introduced. I consider, moreover, that it is highly expedient not to add to the weight already carried by the horses, and that the pioneer tools would greatly increase the number of sorebacks.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

Yes; I think they would be very useful, but they should each carry one large and useful tool, and not the toy tools that are, I believe, ordered. I would only give them a carbine, and they should be taught that they are only to fight in self-defence. They should also carry small charges of gun-cottons or other explosive material, so as to be able to destroy walls, burst open doors, gateways, &c. About 30 for the regiment would be ample.

Major A. R. Heyland, 1st Bombay Light Cavalry.

Yes.—I would have one regiment of the seven cavalry regiments in Bombay trained and equipped as pioneers; and from this regiment of cavalry pioneers should furnish a troop or more under its own officers to any of the other regiments when ordered on service. I think cavalry pioneers require a special training, which they could not get in an ordinary cavalry regiment. To be of any real use, there should be a number of them. A few men per troop would be practically useless, and would consider it a grievance to have to carry and use the tools.

33. Do you consider that it would be desirable to obtain a younger class of men as Native officers than is realized under the present system? And if so, what plan would you suggest?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

I have partially answered this question in No. 28. I would have young gentlemen appointed as Native officers, but would prefer their receiving a regular military education at a military college. Those men that are promoted from the ranks should not be very young men. Character, influence in the regiment, family, &c., should take precedence of consideration of mere smartness. This I think very important in the Native cavalry.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

I think that as the present system allows of the entertainment of Native officers direct on probation, a commanding officer should not recommend for promotion a man so old that he is not fit for the position. I am quite opposed to the dead-level systems. Some young non-commissioned officer may surely be found in every regiment fit for promotion, or a suitable one may be obtained by direct appointment.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

The only plan of getting young Native officers is by the system of direct commissions.

This, with a judicious selection of young deserving men from the non-commissioned ranks, should furnish all that is required.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

It would be desirable to obtain a younger class of Native officers. This object would be attained, if a reserve existed, by passing into it all Native officers on completion of 25 years' service and others of less than 25 years' service who might be thought better placed there than with the line regiment. These officers should be entitled to pension after completing 32 years' service in all.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

Captain M. G. Gerard, 2nd
Central India Horse.

Captain A. H. S. Neill, Central
India Horse.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

Lieutenant-Colonel C. La
Touche, Commandant Poona
Horse.

Lieutenant-Colonel J. H. P.
Malcolmson, Commandant 3rd
Sind Horse.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

I have answered this question in 28. The reserve would hasten pro-
motion also.

Yes; most desirable for cavalry. I would bestow one-third direct
commissions for first year on probation.

Permit any duffadar or sowar between three and ten years' service to
present himself for examination, *viva voce* and practical, unencumbered
by formal reports or returns by his squadron officers in—

- (1) Riding.
- (2) Drill, including outposts attacked, &c.
- (3) Nizabazi, and proficiency with weapons, including musketry.
- (4) Slight knowledge of surveying, keeping duty rosters, accounts,
&c.

The examination to be qualifying rather than competitive, and
character, &c., to be allowed due weight. Selection from those recom-
mended by squadron commanders to rest solely with the commandant.
No man after 15 years' service to be eligible for a commission.

The great advantage of above would be not so much giving excep-
tional qualifications an early chance of recognition, as its being the
means of disabusing the large majority of sowars who failed to undergo
or exhibited their deficiencies under examination of the idea that their
claims had been unfairly overlooked.

I think that, except for special reasons, men should not be promoted
from the ranks to the commissioned grade after they are 30 years of age.
For direct commissions the probationer should be under 21 years of age.

Some young Native officers in a regiment are no doubt good. Their
buoyancy and *elan* are beneficial; but an old soldier of unblemished
character is as useful in leading and advising the younger and more
thoughtless.

The introduction of young Native gentlemen would supply the
former, and the promotion of two out of three Native officers from the
ranks the latter.

In cases where a Native officer (or a non-commissioned officer),
though not physically unfit, has lost energy or nerve, and is, without
being guilty of misconduct, generally unfit for his position, the com-
manding officer's recommendation being accepted without further ques-
tion by an invaliding or other committee would be a great concession;
for the evil indicated does exist.

I do not myself see how younger men can be obtained, unless Gov-
ernment give commissions to rajas' sons and others. As a general
rule, it is not a good thing giving quick promotion to a Native, because
it makes them careless and stuck-up, and they are apt to think a little
too much of themselves. The quickest promotion in this regiment to a
Native officer has been in 15 years. Of course there are exceptional
cases in which this can be done.

I think, now that Native officers can claim their pensions at 32
years' service, there ought to be no difficulty about having a body
of men quite fitted as regards their age for all the duties required of
them. I don't think any change in the existing system is necessary.

It lays very much in the hands of the commanding officer to obtain
young Native officers by rapid promotion, if he so desire; and I see no
necessity for devising any other scheme. I do not hold with having
very young Native officers, as I do not think they maintain such good
discipline, as a rule, when on detached duty; and I think a leaven of
moderately old Native officers gives a tone and example to the juniors,
which is very desirable.

No.—I like Native officers to be somewhat more senior and experienced
than those under them; but they should be better educated in the regi-
mental school than they are, and should be expected at least to read and
write their own language before promotion.

34. Do you consider that the present uniform of the Native soldier meets all
requirements?

Colonel O. Wilkinson, Com-
mandant 2nd Bengal Cavalry.

I think, with the present practice of dismounted work, the jack-
boots should be modified in some way. They might be open at the
instep and fastened with straps across to keep them firm at the ankle;
but I object to Blucher boots and *puttees* for cavalry. In other respects
I think no alterations are required, unless doing away with full dress.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

Yes, a good serviceable uniform; but would prefer boots with gaiters to the long boot now worn by the cavalry. But a really good boot and gaiter suitable for cavalry has, I think, yet to be devised.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

The uniform and equipment of the Bengal cavalry appear to me admirably suited to all requirements.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

The uniform of the 3rd Bengal Cavalry meets all ordinary requirements, with the exception of the Napoleon boots, which are irksome and in the way on dismounted duties. In my opinion boots of ammunition pattern with *puttees* or leg-bandages would be far more serviceable, though not so sightly. In place of the *puttees*, leather gaiters might be ordinarily worn with the ammunition boots; and if each sowar were supplied with a set of *puttees*, these could on active service be substituted for the gaiters. Each Native cavalry soldier should also be supplied with two pairs of warm woollen stockings, two pairs of warm gloves, two thick flannel shirts, two pairs of thick flannel drawers, and one good blanket when sent on active service into cold climates. His present pay hardly allows of his providing these necessaries for himself.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think in the cavalry the uniform is very good—all but the boots. The latter is bad, but I can't suggest a better. On the subject of clothing, I think it would be well if Government allowed Native soldiers extra clothing when employed in cold countries on a fixed scale known beforehand. The habit of fixing on a scale when war breaks out is not good.

Captain M. G. Gerard, 2nd Central India Horse.

Yes, that of the Bengal cavalry does, with exception of some details, about which great diversity of opinion exists, such as that of drab replacing blue gaiters, boots, and hunting hussar saddles, &c.

I consider the Central India Horse perfect with exception of boots, which are neat but unserviceable; and the cloak, ordinary cavalry pattern, which should be replaced by some sort of *bournous* with hood.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

The uniform is excellent in the cavalry; but I think that as cavalry are now expected to fight on foot as well as on horseback, the jack-boot should be abandoned and the *puttee* and gaiter adopted.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I agree with the Native ranks in being satisfied that the present uniform and accoutrements of the regiment meet all requirements; and they have undergone the tests of the mutiny, the Jowaki campaign, and this expedition.

Colonel J. Blair, v. c., Commanding 1st Bombay Lancers.

The uniform, *viz.*, a blouse and *loongee*, now worn by all ranks, I consider very serviceable; but all ranks are anxious to have the present weapon, the straight sword, changed to a curved one, similar to the one now in use with the Central India Horse, and breech-loading pistols issued to the front rank, of the same pattern as the few we received from the arsenal in Malta.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

My regiment has lately, under instructions from army headquarters, been supplied with a blouse and *loongee*. This dress is not nearly so much liked by the men as the *alkhalik* and smaller *puggrees* which have been in use for a great many years. As regards my own individual opinion, I think that the *alkhalik* trimmed with braid and facing gives the soldier a much smarter appearance than the blouse; and it can be put on and taken off more quickly and without disarranging the head-dress. My objection to the *loongee* is, that I don't think it would be suitable for campaigning in wet weather, and gives a good deal of trouble in putting it together when it gets unravelled. In other respects I think the men are supplied with as good uniform as they can afford to pay for.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

Yes; as far as my regiment is concerned, I do,

Major A. R. Heyland, 1st Bombay Light Cavalry.

I think there is much room for improvement; and I would suggest that Bombay Native cavalry have fewer and more inexpensive articles of dress. We might take valuable hints from Bengalis, notably the 9th and 10th Bengal Regiments, with whom we were brigaded in Malta, who have to each sowar one pair of yellow Native tight-fitting trousers to do the work for which our men each require two pairs breeches and two pairs trousers.

Would suggest loose blouses, quilted for cold weather, instead of thick stiff cloth *alkhaliks*; the latter being expensive, and, from their shape and material, necessarily ill-fitting and painfully uncomfortable.

Would further suggest, brown leather shoes and gaiters instead of long boots; the former being suitable for dismounted as well as mounted duties, and the latter being altogether unsuited for dismounted duties, and would probably drown men and horses if required to swim a river.

35. Is the present mode of payment to the Madras soldiers, depending as it does on the price of rice, a judicious arrangement?

Colonel C. J. S. Gough, 6th Bengal Cavalry.

On this subject, as there is a Madras regiment quartered here under my command, I have made some inquiries; and my opinion is, that the plan is a very bad one, and that the family certificates which sepoys are able to grant to relatives for the payment of a small monthly sum, and which carry the right to rice compensation to the relative also, is still worse.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

I should not think the mode of paying Madras soldiers a judicious arrangement, but I have no experience as to how it works.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

The principle involved in this mode of payment would appear to be somewhat similar to that of compensation for dearness of provisions; but it could only be suitable to troops who depended entirely on rice for their food. I would not recommend an extension of the system to the Bombay presidency.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

It would appear to me not, but I am not in a position to say for certain. I am not in favor of any arrangement that savors of compensation.

36. It is very desirable to reduce the number of followers of all classes in regiments both in peace time and in active service: can you suggest reductions of the present establishment?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

I cannot suggest reductions in the camp-followers of cavalry below the scale drawn out by the Equipment Committee in 1877, of which I was a member.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No reduction possible in Bengal cavalry.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

I do not think the *recognized* followers of Bengal cavalry regiments are in any way out of proportion to their absolute wants in peace time. Such as are not absolutely necessary on service are always dispensed with.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

Any reduction of the establishment of camp-followers of a Native cavalry regiment seems impracticable.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

The number of followers in a Native cavalry regiment is very small, if you except the grass-cutters and the hospital establishment. Taking the question of the remainder first, I hope I may be allowed to say that I think the cry against followers is often unreasonable. Dinners must be cooked, water must be brought, camps and latrines must be kept clean; officers must be waited on. Some one must do all this; and it appears to me sweepers, bhistics, cooks, and khitmitgars will do it a very great deal better than soldiers. If soldiers are to be told off for this work, what is the use of training them so highly as they are now trained? I know other armies don't have the followers; the soldiers do the work. But so much the worse for the other armies; the work is not so well done, and skilled fighting men are not forthcoming in full force when wanted. If you have 200 men and 4 followers, you have a force of 204 men to carry, feed, equip, &c. You put 200 men in the field when wanted, while 4 look to their comforts well. If you have a force of 204 soldiers and no followers, your total force is still 204. Four soldiers look badly, after the comforts of the rest, while 200 take the field. Therefore your fighting strength is the same in both cases; but you pay a soldier highly to do badly what a follower would do cheaply and well. I do not think it well to reduce the cooks, sweepers, or bhistics, &c.; but the hospital establishment and grass-cutters are capable of reduction—the former to a very great extent, the latter perhaps in some measure. I think *when followers save the necessity of withdrawing soldiers from the fighting line they should be allowed*, but not otherwise. They are cheaper and do the work better. The followers of the hospital establishment were without doubt far in excess of the regimental requirements in Afghanistan. Indeed, I can safely say that we never used one-fourth of them. The grass-cutters were also numerous; but the sildar system obtaining throughout the Native cavalry will not permit of their reduction. If Government could supply grass to the horses and carriage to the men, reduction could be made possibly. But it must be borne in mind that, while the regiment suffered from want of grass, the poor grass-cutters were almost worked to death. Stationed at Dakka, we brought grass from Basawal; and the ponies and attendants had more work than they could do. This does not appear to prove that there were more of them than necessary.

The system of ponies and grass-cutters, judging from experience, appears bad. In Abyssinia they were taken from us; in Malta they were idle all the time they were there. In Afghanistan they did good work certainly, but often at the cost, and at the risk, of their lives. If the commissariat could provide grass, and the transport carry it, I think the regimental grass-cutter would certainly be not wanted. But it is doubtful whether an equal number of men would not have to be employed by the commissariat to provide grass, and the transport to provide carriage.

Captain M. G. Gerard, 2nd
Central India Horse.

The public followers of a Native cavalry regiment in peace being only 35, viz., 7 kahars, &c., hospital 4 for bazar, 24 bhistics, cooks, sweepers, cannot possibly be reduced. The private followers paid by sowars, 78 in number (bhistics, sweepers, dhobies, sikligars, &c.) would be left behind on service, at any rate across the frontier.

Though the 50 per cent. grass-cutters, who act as mule-drivers in addition, are necessary for a prolonged campaign, an indirect reduction is perfectly feasible.

A second (Government) mule might be put in their charge on service, free rations being given in recompense—which would carry six days' full rations for man and horse, and effect a proportionate reduction in the transport train drivers. For instance, a regiment of 600 sowars would thereby reduce the transport train by 100 (at 1 driver to three mules).

Instead of one grass-cutter per charger, one and one pony to two should be substituted; and the same man could drive a string of three on the march, with his master's baggage.

This would be a practical saving of five followers per three officers, even on Cabul scale.

An undue reduction of followers would tell on available fighting strength in the field, such as men detailed from the ranks to remove wounded, &c., &c.; and one reason of their practical non-existence in European armies is that, contrary to what it is here, they would be far more expensive to entertain than a similar number of soldiers.

I don't know where any reduction can be made in a cavalry regiment.

Brigadier-General C. J. Godby,
Commanding Panjab Frontier
Forces.

Colonel T. G. Kennedy, 2nd
Panjab Cavalry.

I consider that 495 followers are necessary for a full regiment of cavalry,—see my letter No. 314, dated 20th August 1879, and its accompaniment, to the address of the Quarter-Master-General in India; and of this number nearly all but officers' servants (64) are paid for by the men, which shows, I think, that they are at all events considered indispensable.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

The followers paid by Government and kept up in a Bombay cavalry regiment are so very few, I do not think any reduction possible.

Lieutenant-Colonel C. La
Touche, Commandant Poona
Horse.

The bulk of the camp-followers in a cavalry regiment consists of syces, who combine the functions of groom and grass-cutter. They are kept up in the proportion of one to every two horses; and they could not by any possibility be reduced, in my opinion, without considerably interfering with the efficiency of the regiment; for not only have they to attend to the grooming of the horses of men on guard, in hospital, and on furlough, but they have the sole charge of the baggage ponies, who without the syces would have no one to look after them, either in camp or on the line of march. I wish to draw special attention to this question of syces in the Bombay cavalry, as it is sometimes supposed they are merely kept up to groom the horses and save the men the trouble. This, however, is not the case. They do in this regiment all the duty of Bengal grass-cutters, and look after the baggage-ponies besides. Without them, the regiment's transport arrangements, which now enable the regiment to move anywhere at half-an-hour's notice, would at once collapse; for baggage-animals without men to look after them in camp and on the march would be quite useless. In camp the sowars have quite enough to do to groom and look after their own horses and kit; and on the march, without syces the baggage-animals would be useless encumbrances. I do not think the other camp-followers in the regiment are in excess of actual requirements.

Lieutenant-Colonel J. H. P.
Malcolmson, Commandant 3rd
Sind Horse.

I consider the establishment of doolie-bearers and doolies with a cavalry regiment as excessive; and, as a case in point, my regiment has gone through the campaign with only some 30 doolie-wallas and 4 doolies, which, with 6 camels for *kajawaks*, I think, are ample, unless some exceptional sickness breaks out.

Among the other establishments, unless Government undertake a system of transport of a different nature to what is now in vogue, I do not see how the followers can well be reduced.

Major A. R. Heyland; 1st
Bombay Light Cavalry.

I do not think public followers could be reduced much, if at all; private followers might be. For instance, syces in Native cavalry might

be reduced one-third for a campaign if necessary; but only able-bodied men should be taken on service, of course, as syces.

N.B.—There was an army of untrained, and consequently useless, doolie-bearers, sickly old men and boy syces, embarked with the Malta Expedition.

37. Can you suggest improvement in the system of entertaining these men; and in what way could they be organized so as to be less defenceless and helpless than they are at present?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

I am unable to suggest any measure to meet this difficulty. I cannot conceive how cavalry followers in India can be made less defenceless. I saw them armed in the Kuram, but I had no faith in the plan.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

No; I am sorry to say I can see no way, considering the poor and wretched classes that furnish such followers.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

I do not see what other system can be adopted in regiments of Bengal cavalry, where the followers are the private servants of the men, and are entertained and discharged at will. Regarding the arming of camp-followers, beyond supplying them with a Native tulwar for the purpose of defence, there is no other good or suitable weapon.

During the late campaign, all the camp-followers were armed by Government with straight cavalry sabres—a weapon which proved of great encumbrance and no use.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

Each camp-follower should, when in an enemy's country, be provided with a smooth-bore pistol and half-a-dozen cartridges and a few caps. They should always be kept in compact bodies under sufficient escort; and breaches of discipline, such as straying from the main body, should from the very outset of operations meet with exemplary and immediate punishment. Their losses generally arise from want of discipline and strict supervision.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

No; I know of no improved manner. If foraging parties or camp-followers are cut up, it is generally from some faulty arrangements for their protection or their own wilful neglect of orders. We did not lose one man during the campaign. They were always with a guard, and both obeyed orders willingly and well.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

The present system of entertaining is not objectionable; but they might be armed to a certain extent, and be put through some marching drill, and taught how to keep together when marching, or when attacked; and their arms periodically inspected. I believe they would take pride in their weapons. We have often heard of the excellent behavior of kahars under trying circumstances. Half-a-dozen armed men running together on an alarm would present a formidable appearance to a gang of robbers.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

Their helplessness in self-defence is a real anxiety; and I am unable to suggest any remedy further than that the necessity for guarding them necessitates regiments being up to their full strength for field service.

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

The only plan would be to enlist the few Government followers, and let them go through a course of instruction as a recruit, and, when in service, mounted on spare horses and fully armed. They would then be a source of strength, instead of being defenceless and helpless as at present. With reference to the private followers in a regiment, I see no way of organizing them; but still with a little trouble they might be taught the use of firearms, and how to combine in case of attack whilst out foraging.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

The syces and other camp-followers are the private servants of the men, who make their own arrangements for entertaining and discharging them. In consequence of the men being unable to pay anything but very small salaries, they are, as a rule, a very inferior class. I do not see how they could be rendered capable of fighting without some system of training, which, in my opinion, would be quite impracticable; for they are fully occupied from morning till night looking after their silledars, horses and ponies, and would not, I feel sure, submit to any system of military training, even if the time could be spared, without receiving some extra remuneration in return. I look upon camp-followers as an evil, but a necessary evil; and I feel sure that in a cavalry regiment, where the men have, as they have with us, to keep up a baggage-pony for every two horses, the existing establishment could not be reduced. Baggage-ponies that are not well cared for in camp, and have no one to load and look after them on the march, would lead to great inconvenience under existing circumstances. As I have pointed out further on, our baggage-ponies can march forty and fifty miles a day, and bring up their loads within half-an-hour of the arrival of the regiment.

Lieutenant-Colonel J. H. P. Macaulimon, Commandant 8th Sind Horse.

The only plan that occurs to me is to complete each regiment with a skeleton establishment of transport for baggage, commissariat, and ammunition, which should be organized on a specified scale, and be controlled and partially drilled by the commanding officer. This skeleton staff of each branch would then be filled up in time of war; and the subordinates, being well acquainted with their work, and the means of defence in themselves which they could be taught, would be much less helpless and defenceless than they are; and this would prevent the confusion that invariably attends the march of followers, and I think obviate the necessity of such large escorts as now usually accompany them.

Major A. R. Heyland, 1st Bombay Light Cavalry.

I suggest a regularly-organized coolie corps for use both in peace and war; local in peace, and the number required in each station to be used as bearers of ambulance litters, carriers, and escorts of stores, forage, water, drivers of carts, &c., &c. } In war.

As punkha and tattie coolies for European barracks and hospitals, carriers and escorts of stores, doolie-wallas, and for any other purpose (excepting sweepers), for which coolies are entertained by Government, to be dressed in a cheap uniform, which should consist of khaki *puggree*, blue canvas frock, ordinary Native dhotie and shoes; all of which they should be required to purchase from stores. } In peace.

Fixed pay for Bombay, Rs. 5 per mensem for all under five years' service. Increase of one rupee per mensem for every five years. No grades of rank, no pensions; but gratuities on discharge, on a scale according to service. Length of service to be shown by rings (one for every five years' service) on the sleeve of the coat. No compensation for the dearth of provisions; but in famine districts and times the commissariat should sell grain to them at a rate within their means.

They should be drilled by non-commissioned officers and men of the European regiments of the station as carriers, in formation of escorts, in the use of smooth-bore firearms, which should, however, be only given to them on service in countries where they are absolutely required.

33. The general station hospital system is more economical than the regimental one: do you consider that this system can be worked in the Native army?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

I certainly think the general station hospital system could be worked in the Native army.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

I have no doubt the system *can* be worked; but whether it would be advisable to do so or not is another matter. I do not think the regiment would be the gainer, nor would it be in any way so popular; and I certainly prefer regimental system for peace, but in war time a field hospital becomes a necessity. But this can be worked in conjunction with regimental system, although no doubt the field hospital system is more economical.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

Not advantageously. It is a known fact that Native soldiers have an instinctive dislike to treatment even in their own regimental hospital. But a very few years back in many regiments this prejudice was indulged, and the more slight cases used frequently to be treated in the lines, or men came to hospital, received their treatment, and then remained in the lines.

They would all the more object to a general station hospital, where probably the medical attendants would not be known to them, and where the hospital might possibly be at an inconvenient distance from their lines for their friends to remain with them.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

This system could very easily be worked if local bodies of class troops were formed, and moved *en bloc*.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

Yes, I think it could with advantage on service. Some regimental establishment would be needed.

Captain A. H. S. Neill, Central India Horse.

Do not think the system would add to the efficiency and comfort of the soldier. Might induce him to conceal his ailments more, and drive him to Native *hakims*.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

The general hospital system could be worked in peace time, but at the expense of efficiency.

The regimental surgeon's knowledge of the men and their habits and constitution is a great advantage to the sick; and the regimental system no doubt increases the facility of moving, is more popular, and in every way preferable.

The general hospital system is objectionable in every way, excepting that it is economical; and on any emergency arising would entirely break down.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

See attachment by the medical officer, following:—

"The only saving in substituting the station for the regimental hospital system would be that in the former fewer buildings perhaps, and certainly fewer surgical instruments, would be required. But nearly all the surgical instruments now in the equipment of regimental hospitals would be required with a regiment on a campaign. This number should therefore be kept up; and the best way of storing them would be, as now, with regiments, where they would always be kept in order. Station hospitals are objectionable in a sanitary point of view, it being found that disease is generated and spread by congregating numbers of sick men in one building.

In case of an epidemic it would be desirable to have regimental hospitals in different parts of a station, which should be at the disposal of the senior medical officer, when one or more could be used for infected cases, and the other patients treated at a distance from them.

With regard to the hospital establishment, not one of its members can be cut down by adopting the station system. Two hospital assistants, one dresser, one bhistie, and one sweeper, which make up the present establishment of a Native cavalry regiment, are all absolutely necessary to take efficient charge of the sick given by a strength of over 1,000 men and followers. This is especially the case in the north-west frontier, where one hospital assistant is commonly in charge of an outpost. In a campaign the number of hospital assistants required would be still larger. The number of medical officers could not possibly be reduced; for by any system at least one surgeon would be required for 1,000 men. There must be one surgeon for the strength of a regiment; and this being so, it is better he should belong to a regiment than have charge of men of whose previous history he is ignorant, and to whom he is personally unknown. Similarly the number of hospital assistants cannot be reduced; and it is better that they should be attached to regiments than that the Native soldiers should be under the care of strangers, whom they will not trust, and to whom they will not make known their wants.

The important and difficult duty of arranging for the nursing and dieting of the sick could never be so efficiently carried out by an outsider as by a regimental officer.

Perhaps a small gain might be effected by using one station instead of several regimental hospitals; but this is an economy which even the supporters of the station system would scarcely advocate for the sanitary reasons stated."

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

It may be a more economical plan; but still I do not consider that the general station hospital system would work satisfactorily in the Native army.

Lieutenant-Colonel C. La
Touche, Commandant Poona
Horse.

I have no doubt that the system could be worked and that saving might be the result; but I don't think it would be an improvement. On the contrary, I am of opinion that it would be a mistake. I think every regiment should have its own medical officer; and that this is specially necessary in a cavalry regiment, where the nature of the duties so greatly increase the chances of a doctor being required at a moment's notice. No doubt in civil hospitals medical men look after many more patients than ever fall to their lot during regimental duty; but in such cases there are no questions of discipline and military subordination, which would, I fear (in the case of the general station hospital system), lead to friction and complications.

Lieutenant-Colonel J. H. P.
Melchinson, Commandant 3rd
Bnd Horse.

I do not consider the general hospital system at all suitable for Native cavalry, because it takes men away from their homes and friends, which is all that interests them. The Surgeon-General with the Kandahar column has, I believe, also given his opinion that the regimental system is the best. The men are known by their own medical officer and the subordinates of the hospital, and meet with more attention and comfort than when they go among strangers. Added to this, their friends take them their food, and provide them with many things that no one would have any interest in providing them with in a general hospital. Moreover, in my regiment the regimental fund provides some 25 sets of warm bedding and clothing which are used by patients in hospital, and also supplies soups, preserved provisions, and medical comforts (which are not sanctioned by Government) at the recommendation of the medical officer. All these advantages would be lost to the men of the regiment were they sent to a general hospital, and I am sure would be a very unpopular arrangement.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

I would not recommend it. The doctor of a regiment knows, or ought to know, intimately the men of his regiment; can detect schemes quickly, has an interest in the men and in his regiment; the men generally have confidence in him. A general hospital system would include none of these advantages. It is true that in ordinary times of peace the regimental doctor of a Native regiment has comparatively nothing to do. In an epidemic or in war this would be quite the other way. In idle times might not the doctor be made more use of? Many would be glad to volunteer to be of use in assisting in non-combatant duties, to take charge of regimental schools, veterinary charge, &c., &c.

29. Can you suggest a better and more economical system in the place of the present one for compensation for dearness of provisions?

Colonel O. Wilkinson, Com-
mandant 2nd Bengal Cavalry.

I do not know of any more economical system for compensation than the existing one.

Colonel C. J. S. Gough, 5th
Bengal Cavalry.

Major O. Barnes, Officiating
Commandant 10th (Duke of Cam-
bridge's Own) Bengal Lancers.

Captain M. G. Gerard, 2nd
Central India Horse.

Captain A. H. S. Neill, Central
India Horse.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

Colonel T. G. Kennedy, 2nd
Panjab Cavalry.

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

Lieutenant-Colonel C. LaTouche,
Commandant Poona Horse.

No.

I do not think the system to blame; but the pay authorities are most exacting—vexatiously so generally. A small party going away on escort duty will be refused compensation if the duffadar, or perhaps sowar in charge, has failed to obtain a daily tariff from the civil authorities. A little more liberality from the pay department, and a little more credit to a commanding officer, would put this to right.

It is possible; but only so for regiments permanently quartered in one district.

In lieu of compensation, each regiment of Central India Horse has a Government loan of Rs. 16,000, which, with further deposits, &c., forms a grain fund, managed annually by each rissaldar in turn. The assistance of such sowars as he requires is given, and advances made to the zemindars who are *dealt with direct*. By this means, and by remission of export taxes for our grain, as a rule regimental grain is 20 per cent. cheaper than the bazar rate.

Each sowar is restricted to 5 seers gram and 2 of atta, above which he pays local *nerrick*.

Our chief purchases are in Bhilsa, 100 miles distant, not in immediate vicinity.

To make the system pay thoroughly, the fund should have Rs. 50,000 for 500 men—an amount we could only raise by borrowing.

If regiments were localized more, a similar system might be tried which is now in force in the Central India Horse, *viz.*, instead of compensation, a standing loan of Rs. 16,000 is granted to each regiment. With this, advances are made direct to the cultivators before the harvest, and grain eventually purchased cheaper than the station rates. But the system is troublesome and precarious, and has many drawbacks.

I think the present system of compensation is the fairest, and probably as economical a plan as could be adopted.

This is an extremely difficult and complicated matter, from which I see no release; though the form of bill for drawing compensation might, I should think, be much simplified.

It is an unmistakable fact that the sum of Rs. 10, the pay of a sowar, and Rs. 20 allowed to each for the keep of his horse, shoe of pony, pay of his syce, and keeping up his horse, appointments, &c.; in these days of increased prices in forage and grain is inadequate. The average compensation for dearness of provisions vary monthly. As this regiment has only been here (Neemuch) a short time, I will quote the amount of compensation paid in one month to each sowar:—

	Rs.	A.	P.
For dearness of provisions	...	3	9 2
whilst " " forage and grain	...	10	13 4½

I would allow no compensation, unless things were selling at real famine prices; and then only by a certificate from the officer commanding the brigade to the effect that it was really necessary. I would increase the Native soldier's pay by Rs. 2-8 and the cavalier soldier for the keep, &c., of his horse by Rs. 5-3, thus paying to each cavalry sowar Rs. 33 instead of Rs. 30 as at present. This would be a great saving to Government in the end.

The Bombay cavalry should be placed on the same footing as that of Bengal. The prices in the matter of forage, including grain, are far lower throughout the Bengal presidency than they are in Bombay. Moreover, whenever Bengal cavalry are quartered, they get a *bheer* of grass allotted to them. We have no such boon.

I can think of no way of getting rid of the system of compensation, except raising the pay. This might be done, perhaps, by comparing the *nerricks* at the time existing rates were sanctioned with those now current, and revising the pay accordingly. I am of opinion that the existing system of giving compensation is open to grave objections, inasmuch as it is based entirely on a system of *nerricks*, which are just as often incorrect as the reverse. I believe that, where supervision is not very strict, it offers a premium on fraud, and that Government is robbed. I think that sometimes the reverse is the case, and that the men have just cause of complaint; that malpractices would be specially likely to occur in cases of detached bodies of men, where the *nerricks* would have to be supplied by some Native subordinate magistrate; and if such an official were inclined to take advantage of his position, I see nothing to prevent his falsifying the *nerricks* in

collusion with the men, and sharing the plunder. Another objection to the existing system is that, in the case of the horses, men have to wait generally for two months before they get their compensation, and are thus forced to throw themselves into the hands of the saukars for money which is absolutely necessary. Furthermore, I think most regimental officers will agree with me when I say that the compensation abstracts give more trouble than all the other pay papers put together. There is perpetual correspondence and perpetual references. I am totally opposed to the system in every way, and strongly advocate an increase of pay in lieu of the existing arrangements; and I feel sure that Government would gain by the change.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

I have always considered compensation for dearness of both provisions and forage a mistake, and have represented it. I think it would be far better to at once acknowledge the fact that the Native soldier, owing to the rise on every kind of food and forage, is underpaid, and to raise his pay accordingly. It would then be to his interest to endeavour to keep down the prices of everything. Now that both the seller and buyer know that Government recoup the soldier in anything over a certain cost, the former combine to raise the prices out of all measure, and the latter grows indifferent after the compensation point has been reached. I think it would be advisable to take the average of compensation that has been given for both provisions and forage for the last five years, and raise the soldier's pay by that amount, and do away with all compensation.

Major A. R. Heyland, 1st Bombay Light Cavalry.

The rules existing are such that almost any change would be for the better, although probably not more economical.

A reduction in the staff of the pay department might be made if compensation was awarded for dearness of provisions and forage on a scale of a quarter, half, three-fourths, and whole rupees, abolishing broken periods; over 15 days to count as a month, under as nothing. Officers commanding stations, in committee with cantonment magistrates and officers commanding Native corps, to settle the compensation rate quarterly and not monthly after searching enquiry into real market rates; the Government Gazette rate being accepted with caution.

In famine times grain to be sold to Native soldiers by the commissariat at Government rates, with option of course to Native soldiers to purchase their rations elsewhere without compensation.

40. 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?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

I do not think that the guard duties in garrison can be reduced. At least, I have not seen in ordinary times the duties pressing heavily on regiments. If absolutely necessary, the hospital and commanding officer's guard might be abolished.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

The guards furnished by regiments under regulations have been already reduced to the smallest number necessary, and as regards station guards, it is impossible to lay down general rules; but they are also ordered on what is considered absolutely necessary only. I cannot see how they can be reduced.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

The guard duties of troops in garrison sometimes fall very heavily. As a rule, this is unavoidable at the time. This however, I presume, is a point to which the observation of officers in command of garrisons and brigades would be particularly directed.

Lieutenant-Colonel A. R. D. Mackenzie, 3rd Bengal Cavalry.

A committee should be assembled at each garrison, with instructions to carefully examine the whole subject of the existing guard duties of that particular garrison, and to make suggestions as to their reduction by amalgamating at one spot buildings, &c., which now require separate guards, or in any other way.

Major O. Barnes, Officiating Commandant (Duke of Cambridge's Own) Bengal Lancers.

I do not think the guards of the cavalry excessive. At Umballa our men were hard-worked owing to the number of thieves there, and the failure of the police to catch them; but ordinarily the duty is not severe. Possibly the hospital guard, the bazaar guard, and the mess guard might be discontinued; and I should say the same of the commanding officer's guard, were it not specially ordered.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

Guard duties have been reduced as much as possible in the frontier garrisons, and I see no way for further reduction.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

I can only suggest walls round cavalry lines with only front, rear, and two flank exits for reducing regimental duty. Garrison duties can of course be only regulated according to garrison requirements.

Colonel J. Blair, *v.c.*, Commandant 1st Bombay Lancers.

No; I do not think they can. Guards are never put on unless necessary.

Lieutenant-Colonel C. La Touche, Commandant Poona Horse.

The guards in this station consist of the regimental guards only, there being no other regiment quartered here. I am an advocate for reducing guard duty as much as possible.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

I am not sufficiently acquainted with the details of garrison duty to give an opinion on this point, especially as they vary so much at different stations, and I think require special consideration in each case.

Major A. R. Heyland, 1st Bombay Light Cavalry.

One guard only at the station (Deesa) might with advantage be taken up by the police, *viz.*, the bazaar native guard.

Besides this, here and in most stations there are only regimental quarter guards, magazine, treasury, and arsenal guards, which could not possibly be done away with or taken by police.

41. 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?

Colonel O. Wilkinson, Commandant 2nd Bengal Cavalry.

In peace I believe that the medical and hospital system as practised generally in India has worked satisfactorily; but I do not believe any adequate arrangements are made to meet the requirements of a sudden war. I know there were difficulties in pushing hospital furniture and medical stores and camp equipage to the front when it was necessary to advance base hospital from Kohat. I also know that the most important medicine—chloroform—was only forthcoming at the last moment. I also know that the establishment left for Kohat hospital was deficient. I also know that men were sent down to base hospital when sick without any pay or papers of any kind; and the poor fellows would have starved had I not ordered them, on my own responsibility, an advance of pay, and my own pay is withheld pending the settlement of their accounts.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

The fault of the system in my opinion, and from my own observation during the recent operations in Afghanistan, is that when regiments, and even considerable forces of all arms, are detached from the head-quarter or base hospital, sufficient means are not always placed at the disposal of the medical officers to meet the exigencies of the service. For instance, the whole of the seriously wounded, of whom there were a good number at the action of Futehabad, had to be sent at once back to Jellalabad, as the doctors had no means of treating them. The distance was 17 miles, and immediate repose might have been of very great consequence to many of them. Also, on the return march, the treatment of the patients under the very severe outbreak of cholera amongst the 10th Hussars and I-C, R. H. A., under my command was carried on under difficulties. The field hospital system is no doubt economical in every way; but I think more means should be placed at the disposal of regimental medical officers, particularly when detached.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

The working of the medical and hospital system with the Native troops, as far as the campaign progressed, was satisfactory.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I think we had too many tents, too many doolies, too many kahars. We kept to our regimental hospital, which was most admirably looked after by Surgeon-Major Currie and the Native doctors; but we could have done very well indeed without the greater part of the establishment had there been a general hospital to send the men to.

Brigadier-General C. J. Godby, Commanding Punjab Frontier Force.

As far as my experience goes, the regimental hospital system works well.

I was not engaged in the operations in Afghanistan, and cannot say from personal experience how the system worked there.

Colonel T. G. Kennedy, 2nd Punjab Cavalry.

See attachment by medical officer, following:—

"Experience shows that the present medical and hospital system works well.

In the 2nd Division, Quetta Field Force, an opportunity was offered of observing the working of the non-regimental field hospital system, which was carried out among the Native troops from Haikalzai to Kandahar. The medicines, stores, hospital assistants, kahars, sick carriage, and medical officers were ordered to stay behind with the main column. A small box of medicines, a pocket case, one hospital assistant, and one dandy were sent with each regiment going to the front. At one time the 2nd Punjab Cavalry, 32nd Native Infantry, and 28th Native Infantry were ordered to Gulistan Karez, two marches in advance of the column, with orders to go one or two marches further on to reconnoitre the Gwaja pass. The equipment last named was ordered for each of these regiments. All the surgeons were ordered to remain behind

with the sick at the field hospital; so that if any men were wounded or became dangerously ill in front, there would have been no one competent to treat them nearer than two marches off. There was not sufficient carriage with the troops in front for wounded or to carry their sick back, and not sufficient medicines and appliances to treat them where they were. In this instance, one of the surgeons of the regiments ordered to the front did not receive the orders to remain behind until he had arrived at Gulistan with his hospital or part of it. The field hospital was formed by uniting the regimental hospitals, so that there was no saving in *matériel* or in *personnel*. In the British regiments something similar occurred. If a man were severely wounded, he should have to be sent back often two marches to have an operation performed, thus increasing his risk a hundred per cent., and with no gain whatever. After having been sent back, he should then be brought on again over the same ground with the advance of the main column.

In a campaign in India, where there must be a number of baggage camels, the army must move slowly, and there will never be any necessity to have the sick behind the regiment. Should it be necessary in rare instances, the regimental hospitals might be left standing in charge of an hospital assistant or of the surgeon of a regiment in the rear, while the regimental surgeon went on with the regiment, bringing what appliances he thought necessary to assist the wounded. In European warfare it may be necessary to have the sick men in the rear, where modes of transit are quick. In India the sick can be protected as well as the camp-followers and baggage with a regiment.

Another objection to the field hospital is that when a Native cavalry regiment leaves any sick behind, it has also to leave nearly as many other men to look after the horses of the sick. Another objection is that light cases who get well in a few days may be kept behind their regiments for a considerable time after they get well. Another objection is that the men lose the society of their friends when they are ill, and that they are in charge of doctors whom they do not know. In a regiment, if the sick carriage is used up, the spare horses of sick men and spare camels might be used for sick transport of the lighter cases.

Base hospitals fully equipped, the equipment, not as in this campaign, being taken from the regiments of the force, would be required. In place of field hospitals regimental hospitals should be used. If in any case it should be necessary to transfer the sick of a regiment, its own hospital not being up with it, it is much better to transfer them to the hospital of a regiment than to a field hospital, crowded with all the sick of the force, with its surgeons and attendants hurried and overworked."

Colonel J. Blair, v.c., Commandant 1st Bombay Lancers.

I have always found it to work well.

The field hospital system has proved itself, I think (from all I have heard), to be the best means of treating sick satisfactorily during time of war.

Lieutenant-Colonel J. H. P. Malcolmson, Commandant 3rd Sind Horse.

I think the regimental hospital system has worked very well during the campaign; but, as I remarked before, I do not think the general hospital system advisable.

42. 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 O. Wilkinson, Commandant 2nd Bengal Cavalry.

In cantonments, I cannot think that any transport for the sick could beat the ordinary doolie; and in war time some sort of hammock carried by two men should be introduced, in addition to doolies and camel litters.

Colonel C. J. S. Gough, 5th Bengal Cavalry.

The transport of sick is a very difficult subject, which has also been most thoughtfully treated by men who have had great practical experience, and yet difficulties remain. Although Government has offered rewards for a suitable pattern of doolie, not even that has yet been obtained. I regret that I have not the knowledge or experience to suggest any improvements likely to be of any use.

Colonel Hugh Gough, Commandant 12th Bengal Cavalry.

There is no doubt there is room for material improvement in the arrangements for the transport of the sick and wounded on field service. This is a subject which I have no doubt could be much better replied to by officers who had more experience on this point than I had during the late campaign.

Major O. Barnes, Officiating Commandant 10th (Duke of Cambridge's Own) Bengal Lancers.

I consider that every cavalry regiment should in quarters have a very small hospital establishment to treat emergent cases on the ground. Bad kicks, bad falls, and possibly gun-accidents demand instant attention frequently. A doctor, with 1 doolie, 4 kahars, and a medicine chest, would be enough. On service this establishment would have to be increased to, say, 6 doolies or dandies, with necessary kahars; but these would only be required for *bond file* field service or on the march, the treatment of disease or surgical cases being left to the general hospital establishment. The medical officer would treat single cases, such as mild kicks, &c., in the men's tents; no hospital being required.

If the corps were detached, of course provision for all cases would have to be made.

Captain M. G. Gerard, 2nd
Central India Horse.

The present doolie is absurdly heavy and clumsy, and only one per cent. of a modified pattern should be retained for long journeys to base hospital, &c.

For service, a Native cavalry regiment, instead of 10 dandies with 42 kahars per cent. as on Cabul scale, should have 4 dandies and 20 kahars and 3 mules with cacolets and 3 drivers or 23 followers instead of 42 for conveyance of 10; sick at a faster pace, as there would be 5 instead of 4 bearers.

At recent rates this represents a gain to Government of Rs. 250 in money and 4 muleloads of rations per cent. per mensem. The gain with British regiments would be still larger.

Cacolets are an absolute necessity for cavalry out here. In European warfare a comrade wounded in a reconnaissance may be safely left behind; but as this is impossible in our case, you must either extemporize some mode of strapping him on a saddle, or else by keeping with and protecting your doolies sacrifice all mobility, and allow even infantry to overtake you.

A cacolet mule may at a pinch be led at a round trot. That this may kill a wounded man is no argument against it, as that is preferable to abandoning him to savages, or to suffering severe loss, in covering the slow retreat of doolies. On line of march for footsore men, fever patients, and those wounded in limbs, they do admirably, and travel faster than dandies, which in recent war averaged 1½ miles per hour at best.

One mule per regiment should be kept up in peace, to test saddlery, &c.

Kahars in the Khyber column were most inferior. This I ascribe in great measure to their enlistment being confided to the commissariat, who, under the press of other work, were naturally interested rather in producing speedily the required number of men to searching for trained bearers. Many, I saw, were unable to keep step even; and others too feeble to move anything save an empty doolie.

Light spring ambulance wagons, with horse *not* bullock draught, might well supersede a large percentage of doolies for use in many parts of India.

Brigadier-General C. J. Godby,
Commanding Punjab Frontier
Force.

In cantonments the present system is good enough. On service camel kajawahs (improved) might be more largely introduced.

Kahars would be reduced. Four sick men could travel in one pair of kajawahs, and one man to lead. These four men would require 24 kahars. Camp-followers would thus be reduced.

Colonel T. G. Kennedy, 2nd
Punjab Cavalry.

See attachment by medical officer, following:—

“For a peace establishment, I consider the sick carriage equipment of the Frontier Force sufficient, provided a regiment when marching in course of relief, &c., were permitted to borrow additional carriage from other corps. The present durrie dandies should, however, be done away with, as they cannot be used for wounded, and are most uncomfortable for the sick. They should be replaced by Lushai dandies. The present doolie is much too heavy and cumbersome. Doolies might be made light enough to be carried by five instead of six bearers. For a campaign the undermentioned equipment would, I think, be found sufficient for a Native cavalry regiment. The additional carriage for the sick should be kept up by the commissariat and supplied to regiments ordered on service. The kajawahs should not be the country pattern one, which was supplied by the commissariat in the present campaign. A much better pattern is that supplied to the regiments of the Punjab Frontier Force, though this also might be improved upon.”

Colonel J. Blair, v.c., Com-
mandant 1st Bombay Lancers.

The arrangements for the sick of the regiment answer very well in cantonments or field service. The doolies, dandies, and stretchers that were handed over to the regiment on embarking for Malta were old, heavy, and cumbersome, and had to be constantly repaired. I would suggest a lighter kind. We had 3 medical officers and 2 hospital assistants and about 70 odd doolie-bearers. These men were, with the exception of some 4 or 5, found to be perfectly useless, never having carried or seen such a thing as a doolie or stretcher. By constant drilling they were got into shape, and by the time we left Cyprus were able to work well together, notwithstanding the cry that was raised in Malta at the number of followers which the Indian contingent had. They were found to be very useful when the officers and soldiers of the British regiment at camp Chiffek in Cyprus had to be taken away to Larnaka, a distance of nearly 4½ miles. It was there that they were appreciated. I think myself nothing is better than a doolie. The Bengal troops were provided with a lighter kind and had very good kahars. I can suggest no economy, except that better and slighter doolies, dandies, &c., might be supplied to regiments going on field service; and had we at once taken the field, the men sent as doolie-bearers would have been found quite useless for carrying the wounded to the rear.

Lieutenant-Colonel J. H. P.
Malcolmson, Commandant 3rd
Sind Horse.

The circumstances attending field operations in this country are so varied, both as to features of country, nature of roads and of transport animals, that it would be impossible to lay down any pattern of chair or other conveyance. I think the transport of the sick, as far as the regimental sick went, was very well conducted; but I think more care should be taken of the doolie-wallas, and more care bestowed on their clothing, and welfare, when I feel sure we should have a better class of men.

Major A. R. Heyland, 1st
Bombay Light Cavalry.

My ideas as regards *personnel* are embodied in replies Nos. 36 and 37. As to *matériel*, I think the bulky and not-easily-to-be-

stowed-away doolie should not be used for service in the field; it requires from four to six bearers. Light litters, poles with net hammocks, might be used instead, as requiring fewer men. Large heavy ambulance carts do not appear useful; and I would recommend for service in some countries, anywhere where wheeled vehicles or artillery can go, light bamboo platform carts, to be drawn by men or by small ponies and mules about 12-2 in height, or by even good country donkeys. The platform of these carts to be of coir rope, string or tape, and available as a litter for hand carrying when separated from axle and wheels.

I consider this sort of carts which can be seen (not of bamboo and coir) by hundreds in Malta of every size, drawn by horses, mules, and tiny donkeys, to possess the following advantages:—

- (a) The lightest wheeled vehicle possible and cheapest—(Rs. 16 or less).
- (b) Capable of being easily drawn by men, small mules and ponies, and even by country donkeys.
- (c) Suitability for carriage of either men or stores, such as small tents, bags of grain, kit bags, cooking utensils, &c., &c., but not heavy boxes or chests.
- (d) Convertibility into hand litters.
- (e) Speed at which they can travel drawn by small animals.
- (f) Superior celerity, as compared with pack-animals, at which they can be laden.
- (g) Simplicity of construction, and ease with which they can be repaired.
- (h) Simplicity of harness required for them, thus being a breast-band, kogire or Native pack-saddle stuffed with grass, raw leather belly-band and traces, so that—
- (i) in case of a breakdown the animal drawing it can at once be used as a pack-animal, and
- (j) the empty cart for a 12-2 pony can be carried on the head of one strong or two ordinary coolies.
- (k) The ease with which these carts with a sheet or matting over them can be used to give shelter to followers for whom tents are not procurable, the carts being placed either singly or two and two together.

I should add that these carts have been tested on good roads only for long marches, and found a success; and I have no doubt they would do well on bad roads, and in most places where pack-animals could go, carrying twice or three times as much weight and never giving a soreback.

N.B.—In the matter of reserve squadrons, I have, I find, omitted to draw attention to the probability that, with a little encouragement and a few advantages offered, the reserve men of cavalry would take to horse and mule breeding on a considerable scale.

Also have I, writing in haste, omitted that part of my proposition regarding disposal of *assurances* of reserve men. On a man joining the reserve I would give him part of the fixed value of his *assurance* as a small capital to commence either farming or horse and mule breeding, and the balance on taking his pension (an additional security for his good behavior in the reserve). Government of course would in the first instance, and until the reserve was formed, be at some expense in this plan, which would eventually be self-supporting.

The reduction in expenditure that would be effected by the plan of one reserve dismounted squadron to each regiment is easily calculated, taking horse allowance at Rs. 20, added to half the pay of all ranks, plus average compensation for dearth of provisions and forage to man and beast, and I think there is no doubt about the large increase of efficiency.

Remarks by LIEUT.-COL. D. B. YOUNG, *Officiating Controller of Military Accounts, Bombay.*

These questions have doubtless been very ably answered by the several officers to whom they have been addressed; but I submit for consideration that the wide subject should be discussed whether it is advisable to continue the system of irregular cavalry regiments, *i.e.*, the silledar system.

I believe it will be admitted that the change from the regular system was made in view to economy, and solely to this end. At least, I think that was the reason of the change in the Bombay presidency. I therefore hope to show that, as far as economy goes, little is now gained.

Taking the actuals for last year of the 3rd Bombay Cavalry and Poona Horse, I find that the average cost of each regiment amounted to Rs. 3,21,000.

Taking two regiments of Bombay regular cavalry for the year 1856-57, *i.e.*, before the mutiny, I find that by deducting the cost of the then establishment of European officers, and substituting those allowed to a silledar regiment, and adding the cost of the feed of the horses, *i.e.*, Rs. 220* per annum, and Rs. 50 per animal for remounting, then the total average charge would amount to Rs. 3,31,000, or only Rs. 10,000 per annum in excess of an irregular cavalry regiment.

To further illustrate the case, I take the cost of a regiment of Madras light cavalry, in which the horses are still owned by Government, but the European officers are on the scale of irregular cavalry regiments; and find that the cost, charging for the feed of the horses at the rate taken in the prior case of the Bombay regiment, minus pay of grass-cutters, which is included in the cost of a regiment taken from the budget, amounts to Rs. 2,94,600 per annum, or Rs. 26,400 less than an irregular regiment in the Bombay presidency; but this difference would be expended in providing for a short number of 60 sowars. However this sum of Rs. 26,400 would very nearly be sufficient to provide this number, as it represents a charge of Rs. 440 per annum per man.

Hence this calculation goes to support very closely my argument that the irregular system causes a comparatively slight saving to Government.

I should say that grain compensation has in no instance been taken, only forage compensation.

I have also allowed Rs. 50 a year per animal for the purchase of horses.

The details of my calculations are given in the annexed papers marked A, B, and C.

It may be observed that no allowance has been made for cost of clothing and accoutrements; but the former is small, not Rs. 4,000 a year, taking the Madras budget as a guide; and I have in the charge for the old regular cavalry included cost for European non-commissioned staff and for a band, neither of which expenses are incurred in the irregular Bombay regiments referred to.

Apart from the actual and contemplated expenses of an irregular cavalry regiment, there is the very possible charge for compensation for extraordinary loss of horses. After the Abyssinian campaign, the various regiments were very largely helped towards being remounted by Government; and I submit that Government is frequently put in an anomalous position owing to the horses being quasi-private property.

For instance, under the forage compensation rules, once the maximum of cost to the sowar is overstepped, it becomes a matter of indifference to the regiment whether economy in feeding the horses is studied, *i.e.*, such as making favorable arrangements for the supply of grass or grain; and yet Government may have scruples in ordering a certain description of grain or grass to be used, as it may remember that it is not dealing with its own property.

I have dealt with the question from a purely financial point of view, as I do not suppose that from a military point any doubt can be entertained that the regular system is superior. I certainly believe that on active service a so-called irregular cavalry regiment is no more self-helpful than a regular one, as both alike have to fall back on the commissariat, and I do not imagine that a superior class of men have been brought into the army by the silledar system, the practice of having rich men, *i.e.*, owners of many horses, having been discountenanced. Hence the regiments are mainly formed of men owning only the horse they ride, to procure which they have very probably incurred a debt which presses on them for many years, militating against their efficiency.

It will doubtless have been felt that the silledar system has presented great difficulties to the adoption of any system of reserve or short service with the colors, should such a plan have met with any support. Hence the reversion to the system of Government owning the horses of Native cavalry regiments would clear away an otherwise very awkward obstacle.

Since writing the above, I have received papers from Government going to show that the system of calculating forage compensation is to be nearly assimilated to that followed in Bengal (Government of India letter No. 908., dated 6th November 1878); and had this system been in force during last year, then the cost of each of the Bombay regiments that I have particularized would have been increased by at least Rs. 20,000, or showing a total cost for a regiment of Rs. 3,41,000.

It will be understood that I have written as regards the Bombay presidency. I have neither data nor knowledge concerning the Bengal army.

A
BOMBAY CAVALRY.

1878-79.

Actual cost of the 3rd Regiment Native Light Cavalry and Poona Horse in 1878-79.

Particulars.	3rd Regiment Native Cavalry.	Poona Horse.
Cost for one year, including compensation for dearness of forage, but not compensation for dearness of provisions...	Rs. A. P. 3,00,985 13 10	Rs. A. P. 3,40,907 3 6

Rs. A. P. Rs. A. P.
Sum of above figures = 6,41,893 1 4 + 2 = 3,20,916 8 8.
i.e., average cost of one regiment per annum.

* NOTE.—Includes pay of grass-cutters.

B
BOMBAY CAVALRY.
1856-57.

Cost of 1st and 2nd Regiments Native Cavalry in 1856-57.

Particulars.	1st Regiment Native Cavalry.		2nd Regiment Native Cavalry.	
	Rs.	A. P.	Rs.	A. P.
Aggregate charge for one month as abstracted from register for 1856-57.	21,134	7 5	22,099	0 5
<i>Deduct</i> —Pay and allowances of officers	7,789	1 8	8,033	10 2
Staff pay of adjutant	207	7 0	207	7 0
Staff pay of quartermaster	162	0 0	100	0 0
Pay of grass-cutters	775	0 0	820	0 0
	8,933	8 8	9,161	1 2
	12,200	14 9	12,937	15 3
<i>Add</i> —Pay and staff pay of officers in 1879	3,330	11 8	4,678	5 0
	12 ×	15,531 10 5	17,616 4 8	
		12	12	
	+	1,86,379 13 0	2,11,395 3 0	
			1,86,379 13 0	
	+		3,97,775 0 0	
Average ... ..		.....	1,98,887 8 0	
<i>Add</i> —Feed of 490 horses, at Rs. 220 each	1,07,800	0 0	.....
For remounting 490 horses, at Rs. 50 each	24,500	0 0	1,32,300 0 0	
Total average cost of one regiment			3,31,187 8 0	

C
MADRAS CAVALRY.
1878-79.

Cost of a cavalry regiment in Madras per annum	Rs. ...	Rs. 1,99,815	A. P. 0 0
<i>Add</i> —Feed of 427 horses, at Rs. 172 each	73,444		
<i>i.e.</i> , 220—48, <i>viz.</i> , pay of grass-cutters.			
For remounting 427 horses, at Rs. 50 each	21,550		
		94,794	0 0
Total		2,94,609	0 0

G.
NATIVE INFANTRY.

1. As it is obviously impossible to maintain an army always on a war footing, what should be the strength of a Native battalion on a peace establishment?

Colonel J. Dorn, Commanding
27th Punjab Native Infantry.

712 of all ranks, as at present.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

Taking into consideration present requirements for duties of all descriptions, efficiency of instruction, and readiness to meet the first call for service, the present peace establishment of 600 sepays, with proportion of commissioned and non-commissioned officers, is sufficient. I do not think it could be reduced.

Colonel T. Boisragon, Com-
manding 80th Punjab Native
Infantry.

Provided no extraneous duties of garrison orderlies, escorts, &c., are
required to be furnished by the regiments—

Peace establishment—

8 subadars.	32 naiks.
1 Native adjutant.	16 buglers.
32 havildars.	16 handsmen.
	400 sepoy.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

The number of companies to be eight. Each to consist of, both in
peace and war time—

1 European officer.	5 naiks.
1 subadar.	2 drummers.
1 jemadar.	2 musicians.
5 havildars.	100 sepoy.

We have thus two battalions of 800 sepoy each.

To feed these, both in peace and war time, a district recruiting
depôt to be formed. This depôt to be officered by one musketry in-
structor from each battalion (with a proportion of drill instructors), and
always to have ready a sufficient number of trained recruits to enable it
to supply at once 100 men to each battalion ordered on service, and also
to provide and train yearly as many recruits as the regiments recruiting
from the district may require.

As it is not likely that all the regiments recruiting from one district
would be on active service at the same time, the depôt would continue a
supply of trained men to those corps actually engaged to the following
extent. Say three regiments recruit from one district depôt: the said
depôt has, as above provided for, 200 trained men ready for each (100
for each battalion). One regiment goes on service, two do not. Depôt
can supply 400 extra men to the one, and there would still be under
training the number of recruits required yearly for each corps.

With the above organization in good working trim, I am of opinion
that a further reserve of pensioned soldiers would not be necessary. I
am also of opinion that, without incurring any expense in peace time,
a reserve corps, on the outbreak of war, could be formed in each district,
for garrison duty only, by the enrolment of volunteers from the existing
pension establishment. The pay offered should be liberal, say Rs. 9 per
mensem, for those in receipt of Rs. 4 pension, and Rs. 11 for those in
receipt of Rs. 7 pension.

Should it be decided on to form a regular corps of pensioners, my
opinions on that head are given in answers to questions 16, 17, 18, 19,
20, 21, 22, 24, 25.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

The peace establishment of a Native battalion should be in my
opinion—

16 Native commissioned officers.	40 naiks.
40 havildars.	16 drummers and fifers.
	800 sepoy.

In addition to the above, I consider the following non-effective staff
should be added, viz. —

1 subadar-major.	1 drum-major.
1 Native adjutant (jemadar).	1 fife or bugle major.
1 havildar-major.	1 band havildar.
1 quartermaster havildar.	1 quartermaster naik.
1 musketry instructor havildar.	1 musketry instructor naik.
1 schoolmaster havildar.	1 schoolmaster naik.
1 drill havildar.	1 drill naik.

1 band naik.

Total—1 subadar-major.
1 Native adjutant (jemadar).
8 staff havildars.
5 staff naiks.

I would here state my opinion that, considering the nature of the
duties now required of the non-commissioned officers, rightly said to be,
when thoroughly efficient, the backbone of a regiment, their pay as
compared with other ranks is inadequate; and I would suggest its being
raised to—

Havildar-major	...	...	Rs. 20
Other staff havildars	...	...	" 18
Company havildars	...	...	" 16

with Rs. 10 each staff pay in the case of staff and pay havildars, and
Rs. 4 in the case of color havildars.

With regard to naiks, I would suggest that all staff naiks should
receive Rs. 5 per mensem as staff pay, and that all naiks (the above
included) should retain, while in that grade, the good-conduct pay they
draw as sepoy.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal N. I.

Impossible to reduce the peace establishment of a Native regiment
without sacrifice of efficiency: they are already too weak. At Peshawar,

early in October last, when a *coup de main* on Ali Musjid was contemplated, the several regiments in garrison could only muster between 200 and 300 bayonets each. During the leave season, what with recruits, bandmen, sick and men unfit, few regiments could turn out more than 350 bayonets on a sudden emergency. It would therefore be dangerous to reduce the cadre still further. It would be wiser to increase the peace establishment of regiments, while reducing the number of battalions in the army.

This may the more readily be carried out, as, owing to the strategic advantages conferred by railways, many stations can now with safety be abolished or reduced.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

Bearing in mind that the reduction of expenditure as well as increase of efficiency is what is to be aimed at in these suggestions, I would advocate that the strength of a Native battalion on a peace establishment be as at present, except in respect to sepoy, which might be reduced from 600 to 560 men, or 70 sepoy per company.

Lieutenant-Colonel L. H. Williams,
14th Sikhs.

Four hundred sepoy, Native officers and non-commissioned officers as at present, *viz.*, 1 subadar, 1 jemadar, 5 havildars, and 5 naiks per company.

Lieutenant-Colonel R. J. Walker,
17th Native Infantry.

16 Native officers.	48 naiks.
40 havildars.	16 drummers.
640 sepoy.	
Total 760 of all ranks.	

Lieutenant-Colonel R. G. Rogers,
Commanding 20th Punjab N. I.

Vide answer 5.

Lieutenant-Colonel F. B. Norman,
Commanding 24th P. N. I.

Not less than 800 sepoy. The commissioned and non-commissioned officers to be as at present.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native Infantry.

I am of opinion that if a system of short service with the colors, with subsequent service in the reserve, be introduced, it will be possible to reduce the number of sepoy with a Native battalion in time of peace very considerably; and when such a system is in fair working order, and a reasonable number of men have been transferred to the reserve, I consider the peace establishment of a Native battalion might stand as follows, *viz.*—

Subadars	...	...	...	8
Jemadars	...	...	...	8
Havildars	...	...	...	40
Naiks	...	...	...	40
Buglers	...	...	...	16
Sepoy.	...	...	...	504
Total of all ranks				616

Of the foregoing, two to three Native officers and from six to eight havildars, with a similar number of naiks, would require to be employed in connection with the reserves, the care of arms, accoutrements, and clothing, and the periodical training of the men.

The company on a peace establishment would therefore stand thus, namely—

Havildars	...	...	...	5
Naiks	...	...	...	5
Buglers	...	...	...	2
Sepoy	...	...	...	63
Total non-commissioned rank and file				75

But, as previously noted, two non-commissioned officers and two or three sepoy would probably be required for service with the reserves.

It would not, I think, be wise to reduce the peace establishment of a Native battalion below what I have named until the reserve system had been to a certain extent tested. If the system proved successful, it is quite possible that in time the number of sepoy might be even still further reduced.

Lieutenant-Colonel G. C. Rowcroft,
35th Native Infantry.

1 subadar-major.	40 havildars.
7 subadars.	40 naiks.
1 Native adjutant (jemadar).	16 drummers and buglers.
7 jemadars.	450 sepoy.
Total ... 592	

Lieutenant-Colonel F. M. Armstrong,
Commanding 45th (Latter's Sikhs) Native Infantry.

Not less than 800 sepoy, with non-commissioned officers as at present. What with sick list, leave on medical certificate, furlough, short leave, and recruits during a hot season, even in a fairly healthy station, a regiment as at present is so reduced in numbers, that the duties fall heavily. Sickness is increased thereby, and the corps soon

becomes for a time almost useless. With an increase of 200 sepoy's per regiment, in some stations one or two regiments could carry out the duties which are now performed with difficulty by three and four weak corps.

Major R. S. Robertson, 4th N. L.
Offg. Assistant Adjutant-General,
Allahabad Division.

The strength of a Native battalion on a peace establishment should, in my opinion, be the same as at present, *viz.*, 712 of all ranks.

Major E. A. Wanchops, 14th
Sikhs.

If a reserve system be maintained, 4 subadars, 4 jemadars, 24 havildars, 24 naiks, 8 drummers, and 400 sepoy's; total 464 of all ranks.

Major A. C. W. Crookshank,
32nd Pioneers.

I cannot accept the words 'obviously impossible,' except in the sense of its being obviously impossible for us to do otherwise than keep our Native army on a war footing. Our tenure of India by force of arms absolutely forbids our doing otherwise; and our army should be ever ready to suppress a mutiny or repel invasion. A Native regiment should therefore always be at its fighting strength, and yet contain the nucleus of reinforcement. For fighting strength I would add 100 to existing strength. For a depôt I would add another 100, with power to recruit up to 200 more if a long campaign is anticipated: thus—

	Native officers.	Non-commissioned officers.	Buglers.	Sepoys.	Total.
Present strength	16	80	16	600	712
Fighting „	16	80	16	700	812
Depôt „	...	...	...	100	100
Extra war „	4	20	4	200	228

Captain H. D. Hutchinson,
40th Native Infantry.

The same as at present, *viz.*, 8 subadars, 8 jemadars, 40 havildars, 40 naiks, 16 drummers, and 600 sepoy's.

Colonel R. Sale Hill, Com-
manding 1st Goorkha (Light
Infantry).

It appears more convenient to reply to questions 1 and 2 at the same time.

On the accompanying statement I have given the present fixed establishment of Goorkha regiments, and also the organization I propose, with the numbers to be maintained during peace and war.

(a) It will be observed that the regiments are linked in battalions; and with regard to convenience of locality I would form the—

1st regiment from present 1st and 4th;

2nd regiment from present 2nd and 3rd;

3rd regiment from 5th, with a 2nd battalion added to it. This extra battalion might be either given some new station on the frontier, or located with its 1st battalion at Abbottabad, if considered more convenient or economical.

(b) The regiments are divided for war purposes into active and sedentary battalions. Each battalion of a regiment would take it in turn to proceed on service, and would be completed to its war strength from the battalion remaining behind, which again would at once proceed to complete its strength from the reserves, the organization of which will be dealt with further on.

(c) The above only deals with the Native ranks: the British officers and their organization will be considered hereafter.

(d) I consider the proposed arrangement presents the following advantages:—

1st.—A less costly peace establishment. Goorkha regiments have little or no garrison duties to perform. A large peace establishment therefore appears to be an unnecessary burden and expense to the State, provided corps can at once be placed on an efficient war footing.

2nd.—The proposed scheme provides three strong battalions for service, which (after making deductions for sick, absentees, and depôt) may be calculated at from 900 to 1,000 men each.

Under former system, Goorkha regiments never engaged in a campaign more than 500 to 600 strong.

All late expeditions have been "bloodless," or the loss most trifling. Even so, regiments were rendered almost skeleton from sickness, detachments, &c. What would be the state of such weak battalions after two or three severe engagements with the enemy? The present fixed establishment would probably not give as large a war strength as the proposed one, as from the 937 total of each regiment, recruits, sick, absentees, and depôts have also to be deducted; and moreover such battalions would not be capable of any further expansion whatever, besides being more expensive in time of peace.

3rd.—The immediate facility of filling up gaps in the ranks if occurring suddenly at the outset of a campaign from the sedentary battalion by trained men.

4th.—The present Goorkha cantonments are limited in area, and the fixed number of men, 937, would greatly crowd the cantonments, which are not capable of extension without great cost to the State. Moreover, Government will, should the present establishment be maintained, have to incur the expense of grants of money to provide the extra accommodation required for the 200 men augmented.

5th.—Increase of *esprit de corps*. Goorkha regiments take the greatest pride in the achievements of all the battalions. There is a strong national pride; and being formed into a brigade, with distinctions and titles in common, and being linked by battalions, would be popular, and foster *esprit de corps*.

GOORKHA REGIMENTS.

Establishment as lately fixed.

Denomination of corps.	Native officers.	Non-commissioned officers.	Buglers.	Sepoys.	Total Native ranks.
1st Goorkhas (Light Infantry) ...	16	80	16	825	937
2nd Goorkhas (P. W. O.) ...	16	80	16	825	937
3rd Goorkhas (K. B.) ...	16	80	16	825	937
4th Goorkhas (E. G. R.) ...	16	80	16	825	937
5th Goorkhas (H. G. B.) ...	16	80	16	825	937
Total ...	80	400	80	4,125	4,685

Proposed establishment.

PEACE.						WAR.												
BATTALION.						ACTIVE.				SEDENTARY.								
						Native officers.	Non-commissioned officers.	Buglers.	Sepoys.	Total.	Native officers.	Non-commissioned officers.	Buglers.	Sepoys.	Total.			
Goorkha Rifle Brigade.	I	1st	8	80	16	600	704	Active	12	120	24	900	1,056	...	...	...	...	4.
		2nd	8	80	16	600	704	Sedentary	...	...	...	...	4	40	8	900	952	
	II	1st	8	80	16	600	704	Active	12	120	24	900	1,056	...	...	...	...	...
		2nd	8	80	16	600	704	Sedentary	...	...	...	...	4	40	8	900	952	
	III	1st	8	80	16	600	704	Active	12	120	24	900	1,056	...	...	...	...	...
		2nd	8	80	16	600	704	Sedentary	...	...	...	...	4	40	8	900	952	
	Total	...	48	480	96	3,000	4,224	...	36	360	72	2,700	3,168	12	120	24	900	1,056

* See answer 4, paragraph (4), page 634.

(Sd.) R. SALE HILL, Colonel,

Commanding 1st Goorkhas (Light Infantry).

Major A. Dattye, 2nd Goorkhas.

Not less than it is now, *i.e.*, 600 sepoy, except Goorkhas, who should always be on war footing of 800 sepoy, on account of small number of these regiments, their being oftener sent on service, and impossibility of filling up its ranks in time for a campaign if kept on peace footing, or indeed under two or three years.

Major F. F. Rowcroft, 4th Goorkhas.

The same at it is now, namely, 712 Natives of all ranks. It seems impossible for a regiment to be efficient, even on a peace establishment, if under the above strength.

Colonel R. Blair, 3rd Native Infantry.

I think the present peace establishment of 600 sepoy.

Colonel H. Dolaragon, Commandant 4th Sikhs.

Native battalion on peace establishment,—8 subadars, 8 jemadars, 40 havildars, 40 naiks, 16 buglers, 640 sepoy.

N.B.—In the 8 subadars, one subadar-major. Amongst the 8 jemadars, one adjutant and one quartermaster; the latter on a staff of Rs. 10 a month. Of course, the usual present staff amongst the non-commissioned officers and buglers; also 16 sepoy musicians in the total of 640 sepoy.

Lieut.-Colonel F. H. Jenkins, Commanding Corps of Guides.

Battalions of less than six hundred men would be no use on the north-west frontier,

Lieut.-Colonel J. J. Rowell, Commanding 2nd Sikh Infantry.

On the frontier—

- 8 subadars, including subadar-major.
- 8 jemadars, including Native adjutant.
- 40 havildars, including drill havildar.
- 40 naiks.
- 16 buglers.
- 640 sepoy.

Lieutenant-Colonel B. E. Chambers, Commanding 8th Punjab Infantry.

For a peace establishment I think the strength of a Native battalion as it stood before the commencement of the Afghan war is the most convenient.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

With reference to, and subject to, the modifications mentioned in my replies regarding formation of a reserve for the Native army, I consider that the strength of a Native battalion, whether on a peace or war footing, should be the same, *viz.*, 1,000 men of all ranks, divided into eight companies; the only difference being that the number of Native officers and non-commissioned officers is increased on the war establishment, *viz.*—

	Peace.	War.
Native officers	17	19
Non-commissioned officers	82	98
Buglers	16	16
Sepoys	885	867
Total	1,000	1,000

Major A. G. Ross, Commanding 1st Sikh Infantry.

1 subadar-major.	1 band naik.
8 subadars.	40 naicks (company).
8 jemadars.	1 bugle-major.
1 havildar-major.	1 assistant bugle-major.
1 band havildar.	16 buglers.
40 havildars (company).	600 privates.

N.B.—Regiments on frontier to have 700 privates in peace.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

8 subadars, 8 jemadars, 41 havildars, 40 naicks, 16 buglers, 600 privates, 8 puckalis, 8 lascars.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

I am of opinion that it would be better to keep regiments entire and distinct than to divide them into battalions; but should the latter course be determined on, I consider that the strength of a Native battalion on a peace establishment should not be less than the following:—

6 subadars.	12 drummers and buglers.
6 jemadars.	480 privates.
24 havildars.	6 puckalis.
24 naicks.	1 tindal.
1 drum-major.	6 lascars.
1 fife-major.	

making 6 companies for a battalion, and 80 privates per company.

Colonel G. Hearn, Commandant 15th Madras Native Infantry.

I do not see the impossibility of keeping a regiment on a war footing; but as the question assumes it, I frame my answer to the question—16 Native officers, 41 havildars, 40 naicks, 16 drummers, 600 privates, 8 puckalis, 8 lascars, 58 boys.

Colonel L. W. Buck, Commanding 20th Madras Native Infantry.

<i>Peace establishment—</i>	
8 subadars.	8 buglers.
8 jemadars.	600 privates.
40 havildars.	8 bhistics.
40 naicks.	8 lascars.
1 bugle-major.	

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

It should be kept up to its present strength by 8 companies, with 8 subadars, 8 jemadars, one havildar-major, 40 havildars, 40 naicks, 16 drummers and fifers or buglers, and 600 privates. Drums and fifes, being useless, or next to it, for conveying orders, should be abolished and bugles substituted.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

The present strength, or 700 of all ranks, is a good strength for a peace establishment.

With a good system of reserves, I consider that the strength might be reduced to 600, or even 500, of all ranks.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

For a Madras Native regiment the same as at present. You cannot teach the men the whole of the drill properly where there are few men, and, besides, with fewer the guard duties would come to be much heavier even than at present.

Major E. Faunce, Commanding 14th Madras Native Infantry.

12 Native officers (I would have none: see reply 28).
 39 havildars, including—
 1 havildar-major;
 1 quartermaster havildar;
 1 drill havildar;
 6 color havildars.
 37 naicks, including 1 drill naik.
 16 buglers.
 600 privates.

Thus saving 1 subadar and 1 jemadar, 1st class, the same of 2nd class, 2 color havildars, 3 naiks, 1 tindal, 8 lascars, 1 chowdry, 2 peons. A money saving per year on 40 regiments in pay alone of about Rs. 2,14,080.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

I do not think it would be possible, with any regard to efficiency, to reduce the strength of a Native infantry battalion below the very moderate figure at which it now stands. The following return shows what a very small number of men are really available for duty in a Native infantry regiment, when due allowance is made for sick, men on furlough, recruits, and men absent on duty :—

Statement showing the actual strength, the number of recruits enlisted, number wanting to complete, and the number of nights in bed in each infantry regiment of the Native army, for the month of July 1879.

Corps.	Station.	ACTUAL STRENGTH.					RECRUITS ENLISTED.		Number wanting to complete.	Number on guard daily at head-quarters.	Number of nights in bed.
		Present fit for duty at head-quarters.	Sick prisoners, &c.	On detachment or command.	On furlough.	Total.	Since commencement of year.	During the month.			
1st Regt. N. I.	Lower Dozan...	216	38	608	1	863	2	...	...	30	23
2nd "	Nussecrabad ...	534	29	15	87	665	23	1	47	47	5½
3rd "	Hyderabad ...	512	13	141	22	688	17	1	24	44	6½
4th "	Poona ...	365	30	268	27	690	55	10	23	32	4½
5th "	Kurrachee ...	617	27	37	12	693	...	...	19	55	5
6th "	Mhow ...	512	22	74	92	700	66	19	12	32	7½
7th "	Bhooj ...	588	37	9	71	705	57	...	7	57	4½
8th "	Satara ...	371	26	285	9	691	33	14	21	53	4
9th "	Bombay ...	632	36	17	21	706	91	4	6	75	5½
10th "	Neemuch ...	576	32	10	88	706	46	...	6	44	7½
11th "	Poona ...	465	25	180	13	683	87	16	29	38	4
12th "	Rajkot ...	472	53	97	49	671	47	21	41	42	6½
13th "	Mhow ...	364	10	244	71	689	57	2	23	35	4½
14th "	Belgaum ...	479	43	107	71	700	83	18	12	51	5
15th "	Ahmedabad ...	513	49	62	60	684	18	...	28	55	4½
16th "	Malegaon ...	466	31	94	71	662	82	21	53	48	3½
17th "	Dharwar ...	515	20	91	66	692	24	...	20	54	5½
18th "	Poona ...	355	12	252	5	624	67	5	88	26	4½
19th "	Dozan, Bolan Pass.	602	102	146	1	851	30	...	...	...	...
20th "	Baroda ...	538	22	66	70	696	50	...	16	63	6½
21st "	Bombay ...	282	35	360	31	708	70	1	4	47	4
22nd "	Belgaum ...	496	51	97	38	682	95	1	30	38	8
23rd "	Ahmednagar ...	587	16	33	73	709	62	7	3	48	5½
24th "	Mehidpore ...	274	51	323	57	705	51	...	7	26	5½
25th "	Aden ...	416	52	208	...	676	2	...	36	65	3½
26th "	Deesa ...	550	36	17	66	669	45	8	43	84	3½
27th "	Jacobabad ...	379	38	254	27	698	42	3	14	59	3
28th "	Surat ...	521	113	13	54	701	69	11	11	55	4½
29th "	Khokaran ...	605	25	187	3	820	1	...	...	57	6½
30th "	Quetta ...	331	37	285	...	653	2	...	...	61	2
Total Infantry	.....	14,133	1,111	4,580	1,256	21,080	1,367	163	620	1,421	5

From this return it appears that at the head-quarters of the thirty Native infantry regiments of the Bombay army there were only 14,133 effectives of all ranks present, giving an average of about 471 men to each. This average would be increased if the number of effectives (4,500) in the various detachments furnished by the army were included; but even then the strength of each Native regiment would be as low as would be desirable in time of peace. The fact that the average number of nights in bed is only 5 shows that the number of men available for duty is not excessive. The addition of 2 wing officers, 2 Native officers, 5 havildars, 5 naiks, and 200 sepoy to each infantry regiment in addition to the present strength would be sufficient to place the regiment on a war establishment. The extra Native and non-commissioned officers would be required to remain with the depot, which would be formed when the regiment proceeded on active service.

Brigadier-General A. B. Little, Commandant 25th Bombay Light Infantry.

1 commandant.
2 field officers (one for each half-battalion).
8 British officers (one per company).
1 adjutant.
1 musketry instructor.
1 quartermaster and paymaster.
1 medical officer.

8 subadars.
8 jemadars.
40 naiks.
16 drummers or buglers.
24 musicians.
640 privates.
8 bhistics.
(Battalion of 8 companies.)

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

Peace establishment of a Native battalion—

6 subadars.
6 jemadars.
1 havildar-major.
1 quartermaster havildar.
1 drill havildar.
1 musketry havildar. } Staff havildars.
30 havildars.
30 naiks.
12 drummers.
600 privates.

Colonel W. Bannerman, 4th Bombay Rifles.

The present strength of a Native infantry regiment on a peace establishment, *viz.*, 40 havildars, 640 rank and file.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

Sixteen Native officers, 40 havildars, 16 drummers and fifers, and 600 rank and file.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

8 subadars.	16 buglers.
8 jemadars.	32 havildars.
8 bhisties.	32 naiks.
9 lascars.	560 privates.
Total ...	640

Colonel R. Mellaby, Commandant 13th Bombay Native Infantry.

1 commandant.
1 second-in-command.
1 wing-commander.
1 adjutant.
1 quartermaster and paymaster.
6 wing officers.
1 subadar-major.
6 subadars.
6 jemadars.
1 Native adjutant.
1 havildar-major.
1 quartermaster and pay havildar.
2 drill havildars } one of each to each wing.
2 pay havildars }
2 drill naiks }
6 color or pay havildars.
36 havildars.
36 naiks.
600 privates in 6 companies of 100 men each.
24 musicians.
10 pioneers.

Colonel Creagh, Commandant 19th Bombay Native Infantry.

The present establishment is not too large for the duties required in cantonments.

Colonel A. Carnegy, 21st Bombay Native Infantry.

Not less than 600 privates.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

Not less than the present strength, except 4 Native officers, and with the addition of 8 European officers: thus—

16 European officers.
12 Native officers.
40 havildars.
40 naiks.
18 drummers, fifers, and buglers.
600 privates.

Lieutenant-Colonel O. V. Tanner, Commanding 29th Bombay Native Infantry.

Six hundred privates.

2. What should be the strength of a Native battalion on a war establishment?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Eight hundred privates, or a total of 912 of all ranks. The additional 200 privates to be drafted from the other battalion.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

The war establishment I would place at a thousand sepoy—eight hundred for the field and two hundred at depôt. Reserve men (question No. 16) ought to be fit for all duties in a month.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

12 subadars.	40 havildars.
1 Native adjutant.	40 naiks.
1 Native quartermaster (havildar).	20 buglers.
	16 bandsmen.
800 sepoy.	

Colonel E. Dandridge, Commanding 40th Native Infantry.

Colonel G. W. Fraser, Commandant 89th Native Infantry.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Vide answer 1.

I would recommend on a war establishment an increase of—
 10 havildars, | 200 sepoy,
 10 naiks, | 4 drummers and fifers,
 per battalion.

The war strength of battalions on service, on the contrary, need not be greatly, if at all, increased. Six hundred bayonets form a very handy unit, and about as many as can be efficiently supervised by the small staff of British officers to which we are restricted by motives of economy.

Deduction obtained from a consideration of answers 1 and 2.

The two axioms above laid down involve an apparent contradiction, but one that admits of the following solution, *viz.*—

Every battalion should be so strong and so organized that, when required for service, it should be at once able of itself, without extraneous aid, to place a battalion of suitable strength in the field, and at the same time from the residue form the nucleus of a garrison battalion, which latter should be augmented to the desired strength by the reserve, and should in addition act as a feeder to that portion of the battalion which takes the field.

That is to say, every battalion should be capable of expansion into two battalions—the one for service, the other for garrison duty.

Proposal founded on the above deduction.

Peace establishment	...	...	800 bayonets,
War	...	...	1,200 "

of which 600 with the active portion, 600 in garrison, 400 of latter being reservists.

Lieutenant-Colonel P. Harris, Commanding 11th Regiment Native Infantry.

On a war establishment the number of sepoy should be raised to 700. They could be maintained at this number of *trained* men in the manner indicated in reply No. 7.

Lieutenant-Colonel H. L. Williams, 14th Sikhs.

One thousand sepoy and 2 Native officers and 8 non-commissioned officers in excess of peace establishment to belong to the second reserve for service at the *depôt* when the regiment has proceeded on active service.

The 1,000 sepoy to be made up as follows:—

400 on the active list.
 400 in the reserve.
 200 in the second reserve, for garrison duty at the *depôt*.

Lieutenant-Colonel B. J. Walker, 17th Native Infantry.

16 Native officers.	|	48 naiks.
40 havildars.	|	16 drummers.

720 sepoy.

Total ... 840 of all ranks.

Lieut.-Col. R. G. Rogers, Commanding 20th Punjab N. I.

Vide answer 5.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

The war establishment to be 1,000 sepoy, with an extra havildar and naik per company.

Lieutenant-Colonel J. Hudson, Commandant 28th Punjab Native Infantry.

The war establishment of a Native battalion should not, in my opinion, be less than—

Subadars	...	...	...	8
Jemadars	...	...	...	8
Havildars	...	...	...	40
Naiks	...	...	...	40
Buglers	...	...	...	16
Sepoy	...	...	...	704
Total all ranks				816

This would give each company a strength of—

Havildars	...	...	...	5
Naiks	...	...	...	5
Buglers	...	...	...	2
Sepoy	...	...	...	83

Total non-commissioned rank and file ... 100

I consider a battalion of 800 men the handiest for all purposes of command on field service; and making due allowance for incidental guards and escorts, &c., I think it would be found that the battalion could ordinarily take its place in action with about 700 bayonets—quite as many as eight officers can well look after when the arms and tactics of the present day are considered.

I think if the strength of the battalion be increased beyond what I have suggested, it would be necessary to make a corresponding addition to the number of its officers.

Lieutenant-Colonel G. C. Rowcrot, 35th Native Infantry.

1 subadar-major.	43 havildars.
7 subadars.	43 naiks.
1 Native adjutant (jemadar).	16 drummers.
7 jemadars.	800 sepoy.
Total	923.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) Native Infantry.

One thousand sepoy. Allowing for casualties of kinds, escorts, baggage, and other guards which must always be required, fully 1,000 sepoy are necessary to allow of the remainder being of any use as a fighting battalion. In the last campaign, after furnishing the guards and escorts called from them, regiments frequently marched with four companies of 15 or 20 files each.

Major R. S. Robertson, 4th N. I., Offg. Assistant Adjutant-General, Allahabad Division.

On a war establishment the strength of the battalion should be increased by 200 rank and file, making a total of 912.

Major R. A. Wauchops, 14th Sikhs.

To be increased by 400 sepoy.

Major A. C. W. Crookshank, 32nd Pioneers.

Replied to in answer 1. A regiment should always have 812 ready for war, with a depôt of 100, consisting of sick, weakly men, and recruits. The latter would form the first reinforcement; and if a long war is anticipated, the depôt should commence recruiting 100 or 200 extra. Depôt non-commissioned officers would be dropped from regiment, promotions being made in lieu, to be absorbed afterwards.

Captain H. D. Hutchinson, 40th Native Infantry.

Eight subadars, 8 jemadars, 40 havildars, 40 naiks, 16 drummers, and 800 sepoy.

Colonel R. Sale Hill, Commanding 1st Goorkhas (L. I.).

Vide answer 1.

Major A. Baitye, 2nd Goorkhas.

Not less than 800 men, exclusive of non-commissioned officers.

Major F. F. Roweroft, 4th Goorkhas.

One thousand Natives of all ranks.

Colonel R. Blair, 3rd Native Infantry.

Eight hundred sepoy.

Colonel H. Boisragon, Commandant 4th Sikhs.

War establishment—8 subadars, 8 jemadars, 50 havildars, 50 naiks, 16 buglers, 800 sepoy.

Lieut.-Col. F. H. Jenkins, Commandant Corps of Guides.

Eight hundred sepoy, all trained soldiers.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

10 subadars.	50 naiks.
10 jemadars.	20 buglers.
50 havildars.	800 sepoy.

Lieutenant-Colonel R. B. Chambers, Commanding 6th Punjab Infantry.

A Native battalion taking the field, 800 sepoy strong, with the present complement of non-commissioned officers, would be a very efficient strength.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

Vide answer 1.

Major A. G. Ross, Commanding 1st Sikh Infantry.

One thousand privates, with 3 havildars and 3 naiks added to each of the 8 companies, *i.e.*, 24 of each rank.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Eight subadars, 8 jemadars, 57 havildars, 56 naiks, 16 buglers, 960 privates, 8 puckalis, 8 lascars.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

On a war establishment the strength should not be less than—	
8 subadars.	1 fife-major.
8 jemadars.	16 drummers and buglers.
40 havildars.	800 privates.
40 naiks.	8 puckalis.
1 drum-major.	1 tindal.
8 lascars.	

making 8 companies for a battalion and 100 privates per company.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Any number up to 800 or 900, including all ranks.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

<i>War establishment.</i>	
8 subadars.	1 bugle-major.
8 jemadars.	10 buglers.
43 havildars.	800 privates.
43 naiks.	10 bhisties.
8 lascars.	

Two hundred privates should be added.

Colonel W. A. Gib, Commandant 25th Madras N. I.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

On a war establishment the battalion should be at the highest strength compatible with its management as a tactical unit:—
1,000 privates or 1,100 of all ranks.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Light Infantry.

Colonel S. Edwards, Commanding 2nd (Prince of Wales Own) Grenadier Regiment Bombay Native Infantry.

Colonel W. Bannerman, 4th Bombay Rifles.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

Colonel B. Mallaby, Commandant 13th Bombay Native Infantry.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

Note.—Nine hundred men is enough for most voices to command, and too much for many; but perhaps this number might be raised to 1,000.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

Eight hundred privates at least, with a proportionate increase in the ranks of the non-commissioned.

Eight hundred privates. The other ranks as on a peace footing.

Vide answer 1.

1 commandant.	2 medical officers.
2 field officers (one for each half-battalion).	10 subadars.
10 British officers (one per company).	10 jemadars.
1 adjutant.	50 havildars.
1 musketry instructor.	50 naiks.
1 quartermaster and paymaster.	20 drummers or buglers.
(Battalion of 10 companies)	24 musicians.
	800 privates.
	10 bhisties.

8 subadars.	40 havildars.
8 jemadars.	40 naiks.
4 staff havildars.	16 drummers.
	800 privates.

Increase rank and file to 800.

Rank and file to be increased to 800, exclusive of unfits, recruits &c., left with the depôt.

8 subadars.	16 buglers.
8 jemadars.	40 havildars.
8 bhisties.	40 naiks.
9 lascars.	880 privates.
Total ... 976	

The same as in answer 1, with an addition of 20 men per company, and two havildars and two naiks.

An additional 200 men would suffice, with a small increase of non-commissioned officers.

Eight hundred.

16 European officers.	60 naiks.
12 Native officers.	18 drummers, fifers, and buglers.
60 havildars.	
900 privates.	

3. What should be the number of companies per battalion?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Colonel T. Boisaragon, Commanding 30th Punjab Native Infantry.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Eight single or four double companies.

I would recommend eight companies. In time of peace six would suffice, but in time of war eight would be necessary; and to meet that necessity I would maintain eight at all times. Newly-formed companies do not work well for some time.

Peace establishment.—Four companies of 100 sepoy per company.

War establishment.—Eight companies of 100 sepoy per company.

Vide answer 1.

Eight as now constituted, but four double-companies would, I consider, be better adapted both for administrative and tactical purposes.

Taking the above (*vide answers 1 and 2*) as the basis of all organization, the number of companies in a battalion should be ten, of which 6 for active service and 4 for garrison duty.

The number of companies in the regimental depôt battalion should be four (*vide answers 5 and 7*).

As at present, eight.

- Lieutenant-Colonel L. H. Williams, 14th Sikhs. Not less than eight.
- Lieutenant-Colonel B. J. Walker, 17th Native Infantry. Four double-companies.
- Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry. There should be eight companies in the peace establishment, six in the war.
- Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry. Eight as at present. This is the best number of companies for a battalion, and is in accordance with the present system of drill. Thus each half-battalion consists of four companies or two double-companies.
- Lieutenant-Colonel J. Hudson, Commanding 23rd Punjab Native Infantry. In answering this question, it is necessary to consider that which follows it, and the number of British officers to be kept up with the battalion. I am inclined to think the present system of wing or half-battalion commands is the best that could be applied to the Native infantry. It seems to me to answer very well; and in this view I think eight companies to the battalion, or four to each half-battalion, is the most convenient.
- Lieutenant-Colonel G. C. Bowcroft, 35th Native Infantry. Eight companies.
- Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry. Eight, as at present. On service, even with 1,000 sepoy, after deducting sick and duty men, there would seldom be more than 35 or 40 files per company in the ranks—a number not too large for active service.
- Major E. S. Robertson, 4th N. I., Offg. Assistant Adjutant-General, Allahabad Division. Eight companies per battalion, whether on a peace or war establishment.
- Major R. A. Wauchope, 14th Sikhs. Four.
- Major A. C. W. Crookshank, 32nd Pioneers. Eight, formed in four double-companies, with a depôt company in addition. The latter never to exceed 100 sepoy, and to be provided with non-commissioned officers from the battalion companies.
- Captain H. D. Hutchinson, 40th Native Infantry. *In peace* 8 companies of 75 men each. *In war* 8 companies of 100 men each.
- Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry). The number of companies should remain eight per battalion, and would be as follows:—
- | | N. O. | N. C. O. | B. | S. | Total. |
|-------|--------|----------|----|--------|------------|
| Peace | 1 | 10 | 2 | 75 | 88 |
| War | 1 or 2 | 15 | 3 | 112-13 | 134 or 135 |
- the 4 extra Native officers and sepoy being posted to alternate companies.
- The above strength on service would not be excessive for a company, taking into consideration the guards, escorts, &c., and would provide suitable double-companies.
- Major A. Batty, 2nd Goorkhas. Eight.—Fewer companies when the battalion is on a war footing of 800 sepoy would make each company too large, whereas with 100 men a company is just the right strength for all purposes. Native officers do not show great aptitude for commanding even such companies as we now have. They would not succeed better with larger companies. With more than 45 files on parade, a company becomes unwieldy. If strength of a battalion has to be increased beyond 800 sepoy, it will be much more convenient in every way to have eight companies.
- Major F. F. Rowcroft, 4th Goorkhas. Eight companies on either a peace or war establishment.
- Colonel B. Blair, 3rd Native Infantry. Eight companies, as at present.
- Colonel H. Boisragon, Commandant 4th Sikhs. Eight companies, war or peace establishment, *i.e.*, 4 companies per half-battalion or wing.
- Lieut.-Col. F. H. Jenkins, Commandant Corps of Guides. Eight service and two depôt companies.
- Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs. Eight on peace and ten on war establishment.
- Lieut.-Col. B. R. Chambers, Commanding 6th Punjab Infantry. I think eight is a convenient and efficient number.
- Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides. *Vide* answer 1.
- Major A. G. Ross, Commanding 1st Sikhs. Eight companies, both in peace and war.
- Colonel A. Jenkins, Commandant 2nd Madras N. I. Eight companies.
- Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry. Six companies per battalion on the peace, and eight on the war establishment.

Colonel G. Hearn, Commanding
15th Madras N. I.

Eight.

Colonel L. W. Buck, Com-
mandant 20th Madras N. I.

Eight companies.

Colonel W. A. Gib, Com-
mandant 25th Madras Native
Infantry.

There should be eight companies per battalion, as in the British regi-
ments in India. In matters of drill Native battalions should be
assimilated as much as possible to British regiments.

Lieutenant-Colonel F. H. Tyrrell,
27th Madras Native Infantry.

The same as in a battalion of the British army, for the sake of
uniformity, and to accord with our present system of drill.

I think a few large companies in a battalion, four or six, better than
many weak ones. The former system saves expense, time, and labor.

Lieutenant-Colonel P. A.
Carnegy, 30th Madras N. I.

Eight.

Major E. Faunce, Commanding
14th Madras Native Infantry.

Six, with the present strength of 600 privates, divided into eight
companies. It may happen, as is the case now with my regiment, that
the average number of privates per company present with the colors is
less than 60; and there is one Native officer or full non-commissioned officer
present to every 5-24 privates. Allowing for sick present, sick absent,
vacancies, men on various duties, the present number of privates, 75,
in a company is ridiculous as a tactical unit. A commanding officer
that can muster eight companies of 25 files, 400 men, including naiks,
and on ordinary parades, considers himself lucky.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

Eight, as at present, is a convenient number both for administrative
and tactical purposes. On a regiment taking the field, a depot com-
pany additional to the above number should be formed.

Brigadier-General A. B. Little,
Commandant 35th Bombay
Native Light Infantry.

Eight to a battalion on a peace footing; ten to a battalion on a war
footing.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

Number of companies per battalion —

Peace footing	...	...	...	6
War	"	"	"	8

On the outbreak of war the battalion first for service to be increased
by two companies from the third battalion; and if more regiments are
required for service, the second battalion to be similarly increased from
the third.

Colonel W. Bannerman, 4th
Bombay Rifles.

Eight.

Colonel W. Hanson, Com-
manding 9th Bombay Native
Infantry.

In peace eight companies of 75 rank and file, each formed into four
double-companies. On a war establishment the rank and file to be
increased to 100 per company.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

As at present, eight companies being most convenient in every
respect.

Colonel R. Mallaby, Command-
ant 13th Bombay Native Infantry.

Six.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Four double-companies.

Colonel A. Carnegy, 21st Bom-
bay Native Infantry.

Six on a peace and eight on a war establishment.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Six. Eight might be better, with 120 or 125 men in each company;
but that would entail more officers, European and Native, and add to
the expense. A captain could command 150 men as readily and efficient-
ly as 100 or 125; but a colonel could not always make himself heard by
1,000 men, or even 900. Sometimes I consider it a *sine quâ non* that
a European captain commands every company, and under a good one
the Native officers would perform the duties of "guides" on parade
fairly—but nothing more.

Lieut.-Col. O. V. Tanner, Com-
manding 20th Bombay N. I.

Eight single-companies or four double-companies.

4. What should be the number of European officers per battalion, and how distri-
buted?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

One commandant, 1 second-in-command, 1 wing commander, 1
adjutant, 1 quartermaster, 4 wing officers, 1 medical officer—total 10 for
peace establishment.

One commandant, 1 second-in-command, 1 wing commander, 1
adjutant, 1 quartermaster, 4 double-company commanders, 2 wing
officers, 1 medical officer—total 12 for war establishment. The additional
officers to be drawn from the other battalion.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

The present number of British officers, one commandant, two wing commanders, and four wing officers, is sufficient for peace requirements. It could not be reduced, as the duties of British officers have been so much elaborated, especially in musketry.

The present distribution is also good. Wing commanders are being trained for the office of commandant, and wing officers for that of wing commander.

In time of war the wing officers should be increased to ten to provide one per company and one for the depôt. Total of war establishment, one commandant, two wing commanders, ten wing officers.

I am of opinion that it is injudicious having all the officers attached to a Native battalion mounted. The two wing commanders and adjutant are sufficient for parade duties. At the same time the duties of British officers with Native battalions are so various, and their efficiency is so materially augmented by their being in possession of chargers, that I think they should be required to maintain them as at present.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Peace establishment—

- 1 commandant. | 1 adjutant.
- 2 wing commanders. | 1 quartermaster.
- 4 company commanders. | 1 medical officer.

N.B.—The senior wing commander and two of the company commanders to have charge of the drilling of the reserve when assembled for that purpose.

War establishment.—The same number as the above actually present with the regiment, with the addition of four officers taken from other regiments of the same class, and who would have experience of that particular class to command companies on service.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Each battalion to consist of 12 European officers, distributed thus:— one commandant, one second-in-command, one wing commander, one adjutant and quartermaster, and eight company officers.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

One colonel or lieutenant-colonel commandant.

One lieutenant-colonel second-in-command.—This officer's duties to consist in assisting the commandant in exercising a general supervision over the interior economy of the regiment, and to take command of the regiment in his absence, or that of a half-battalion if detached from regimental head quarters.

Two majors to command half-battalions, and to be responsible for them in every way as regards drill, musketry, interior economy, &c.

Four captains.—Each of these officers to command a double-company on parade, and be responsible for their interior economy, &c.

Eight subalterns.—Each to command on parade a half double-company, and to assist the captain in reference to his own half-company in all matters of drill, musketry, interior economy, &c.

1 adjutant, 1 quartermaster, 1 surgeon.

Other young officers who were appointed might be borne on the rolls as supernumeraries and posted as vacancies might occur.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Under the above organization, it should be—

- 1 lieutenant-colonel (commandant).
- 2 majors, in the same position as majors of British corps.
- 5 captains, each in command of a double-company, and performing for it the duties now taken by a wing commander. A wing is too large a unit for one officer to thoroughly supervise.
- 4 subalterns, one being adjutant and another quartermaster.

Total 12 British officers.

In war time the above might be distributed thus—

1 lieutenant-colonel	...	} with the six companies on active service.
1 major	...	
3 captains	...	
1 lieutenant as adjutant	...	
1 " " quartermaster	...	
Total	7	
1 major (commandant)	...	} with the four companies in garrison.
2 captains	...	
1 lieutenant as adjutant	...	
1 " " quartermaster	...	
Total	5	

The regimental depôt battalion should have in peace or war—

- 1 lieutenant-colonel, commandant.
- 1 major, performing duties of wing commander for all four companies.
- 1 lieutenant and adjutant.
- 1 " and quartermaster.

In addition to the above, when on field service, each of the three double-companies so employed might have a qualified subaltern from British or unemployed Native regiments attached for duty, so as to give ten officers.

Table showing the proposed peace establishment for a regiment of Native Infantry.

SPECIFICATION.		Depôt battalion.	Service battalion, 1st.	Service battalion, 2nd.	Total in regiment.	REMARKS.
Number of Companies	...	4	10	10	24	
British officers.	Lieutenant-Colonel (commandant)	1	1	1	3	} For specification of duties: vide above.
	Majors	1	2	2	5	
	Captains	...	5	5	10	
	Lieut. and adjutant	1	1	1	3	
	Lieut. and quartermaster	1	1	1	3	
	Lieutenants	...	2	2	4	
	Total combatants	...	4	12	12		23
Medical officers	...	1	1	1	3	
Native officers.	Subadar-majors	1	1	1	3	} Half of these would be first class, half second class. Jemadars ditto. Supernumerary jemadars.
	Subadars	3	9	9	21	
	Jemadars	4	10	10	24	
	Native adjutants	1	1	1	3	
Color havildars	...	4	10	10	24	} Supernumeraries, as they could never be available for company duty.
Pay havildars	...	4	10	10	24	
Havildars	...	12	30	30	72	
Drill havildars	...	1	...	...	1
Drill naiks	...	1	...	...	1
Naiks	...	20	50	50	120	
Buglers	...	8	20	20	43	
Sepoys	...	200	800	800	1,800	
Total Native ranks	...	259	941	941	2,141	
Hospital assistants	...	1	2	2	5	
TOTAL ALL RANKS, BRITISH AND NATIVE		265	956	956	2,177	

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

I have always been, and still am, of opinion that as the backbone of an Indian army are its European regiments, so that of a Native battalion are its European officers. If the presence with each regiment of its present complement of European officers could always be ensured, which it cannot be, I might admit, having a view to economy, that an increase, though desirable, might not be absolutely necessary for efficiency, but experience has clearly shown that the full complement cannot be maintained even in peace time, whilst a war strain would speedily reduce the number to an extent absolutely dangerous.

I would therefore suggest that at least two additional wing officers be added to each battalion.

The distribution would remain as at present, the only difference being that each wing commander would have two wing officers under him instead of one.

Lieutenant-Colonel L. H. Williams,
14th Sikhs.

Eight, viz., 1 commandant, 2 wing commanders, 1 adjutant, 1 quartermaster, 1 musketry instructor, and 2 wing officers. The musketry instructor to command the depôt when the regiment has proceeded on active service.

Lieutenant-Colonel R. J. Walker,
17th Native Infantry.

1 commandant. } 1 quartermaster.
4 double-company commanders. } 1 officer attached on probation.
1 adjutant. }
Total ... 8 officers.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

The former should have eight British and eighteen Native officers, as follows:—

1 commandant (to be considered senior of both battalions),	
2 wing commanders (including second-in-command),	
2 wing officers,	8 subadars,
1 adjutant,	8 jemadars,
1 quartermaster,	1 Native adjutant,
1 medical officer,	1 Native quartermaster,

the last-named being highly necessary on service, especially under a "regimental transport system" as adopted in the recent campaign.

The depôt battalion should have none but British officers, it being a reserve of all ranks for the service battalion.

Its officers should be—

1 commander.	6 captains	} or 12 company officers.
1 second-in-command.	6 lieutenants	
1 adjutant.	1 quartermaster.	

1 medical officer.

It may be wondered why I advocate more British officers for this than for the service battalion. Many require fully as much training as Natives, and as much incentive to render themselves proficient; and experience has shown me that the really good Native officer is as daring, cool, and reliable as the British. The staff allowances in the one case and the hope of a commission in the service battalion in the other will be a powerful inducement to the officers and men of the depôt battalion to strive for transfer to the former, and, when in it, to fit themselves for promotion.

Lieutenant-Colonel F. B. Norman, 24th Punjab Native Infantry.

As at present, I consider the present number of European officers, provided the establishment is kept up, quite sufficient. The distribution to be as at present.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

This is probably the most important, as it is certainly one of the most difficult, questions connected with army organization, and it is one on which the oldest and most experienced officers widely differ; for while some maintain that the present establishment of seven British officers is amply sufficient, others contend that there should be at least one British officer per company exclusive of the regimental staff and wing commanders.

For my own part I am of opinion that if the Native officers of a battalion are all really efficient and up to their work, up to the standard which was evidently in view when the present establishments were fixed, then I say I think the present number of seven combatant British officers would be sufficient; but then *there should always be that number*, and some arrangement must be made for providing for absentees or on account of sickness and furlough. The question of the efficiency of the Native officers of the army will be considered in my replies to question 33 later on; but I may remark here that, as a rule, the Native officers of the army do not come up to the requirements of the day. Such being the case, I do not think the present arrangement, which provides only seven combatant British officers for a battalion, under all circumstances of peace or war, can be considered satisfactory. Given the war strength of a battalion of Native infantry as 800 bayonets, then I think it should have at least nine British officers.

These I would distribute as follows:—

1 commandant	} field officers.
2 wing commanders	...	...
4 wing officers (of whom 2 should be captains and 2 subalterns).			
1 adjutant	} subalterns.
1 quartermaster	...	...

The above should be borne on the rolls of each battalion, though in time of peace two of the wing officers might be absent, either on staff employ or engaged with the training, &c., of the reserves. This latter would certainly be preferable, as their services would then be available with their battalions, when it became necessary for the reserve men to rejoin the colors.

Suppose, therefore, a captain and a subaltern to be added to the present establishment of each battalion, the former might be employed with the reserves in training the men whenever they were called out, and in taking charge of their arms, accoutrements, and clothing. He might be further charged with the payment of these men at stated periods.

The subaltern would be available at regimental head-quarters to fill any vacancy caused by absentees on account of sickness or leave.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

On the supposition that each regiment consists of two battalions, I consider that the number and distribution of European officers per

battalion on the peace establishment should be as follows:—

1st battalion.		2nd battalion.	
1	regimental commandant.	1	battalion commandant.
2	wing commanders.	1	adjutant.
1	adjutant.	1	quartermaster.
4	wing officers.	4	wing officers.
1	medical officer.	1	medical officer.
Total		15 combatant officers.	
		2 non-combatant officers.	

On being ordered on active service, the first battalion would be completed to the war establishment by drafting into it from the second battalion—

4 wing officers (making 1 per company.	8 havildars.
	8 naiks.
320 sepoys.	

The reserves would immediately be called in to replace the men drafted for active service, and recruits entertained to fill the vacancies so created.

It will be observed no quartermaster is recommended for the first battalion, as it is intended that all recruits shall be entertained, drilled, and supplied with regimental necessaries at the head-quarters of the second battalion. In the first battalion wing commanders, assisted by their wing officers, would be responsible for the arms, accoutrements, clothing, half-mountings, and regimental necessaries of the men of their respective wings.

The adjutant of the first battalion having no recruits to drill, should act as musketry instructor, and assist wing commanders in the annual course. He should also have charge of the camp equipage and ammunition of the battalion.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (East-India's Sikhs) Native Infantry.

Ten combatant officers, *viz.*, 1 commanding officer, 2 wing commanders (field officers), 7 wing officers (captains and lieutenants). Three of the wing officers to perform the duties of adjutant, quartermaster, and musketry instructor, with the extra staff allowances. On service, casualties very soon reduce the present number of seven European officers, and their want is soon felt.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I do not think that any alteration is necessary in the number and distribution of European officers, as I consider the present organization suitable, and the number of officers ample for carrying on the duties of a Native regiment in time of peace; but in time of war the European officers of the battalion sent on service should be augmented by at least two, and others should be held in readiness to join in the event of their services being required.

Major R. A. Wauchop, 14th Sikhs.

One commanding officer, 1 second-in-command, 4 company officers, 1 adjutant, 1 quartermaster.

Major A. C. W. Crookshank, 32nd Pioneers.

There should be ten—

Commanding officer	...	...	1
Double-company commanders	...	...	4
" subalterns	...	...	4
Depôt subaltern	...	...	1

10

Four officers, majors and captains, would command the double-companies. Of the 5 subalterns, 1 would be adjutant, 1 quartermaster, 1 command depôt company, and 2 assist in battalion. The senior subaltern would command the depôt company, and, on a regiment going on service, would be promoted double-company commander. The depôt company would recruit up to double-company, and a second officer would be added from the furlough reserve.

Captain H. D. Hutchinson, 40th Native Infantry.

In peace, 1 commandant, 2 wing commanders, 1 adjutant, 1 quartermaster, 4 wing officers, and a surgeon.

In time of war, 8 wing officers.

The wing officers, whatever their rank (they should, if possible, be captains and subalterns), should be dismounted *always*. They should command, drill, instruct, and pay, each in peace 2 companies, and in time of war 1 company. They should keep the sheet-rolls, books, and accounts, &c., of their respective companies. Their staff pay should be, if lieutenants, Rs. 100 a month; if captains, Rs. 150 a month; and if majors, Rs. 200 a month. The 2 wing commanders should get Rs. 250 a month each. Subaldars and jemadars would not become nonentities under this arrangement. On parade they would act as guides, &c.; and in the lines be responsible as heretofore for the good behaviour of their men. But companies must be led by European officers; therefore it

would appear wise to make them practise in peace duties which they must perform in time of war.

Colonel R. Sala Hill, Commanding 1st Goorkhas (Light Infantry).

The establishment of British officers per battalion should be—

1st battalion.	2nd battalion.
1 lieutenant-colonel commanding.	1 lieutenant-colonel commanding.
1 field officer second-in-command.	1 field officer second-in-command.
5 captains.	4 captains.
5 lieutenants.	4 lieutenants.
1 lieutenant and adjutant.	1 lieutenant and adjutant.
1 lieutenant and quartermaster.	1 lieutenant and quartermaster.
1 medical officer.	1 medical officer.
15 officers.	13 officers.

(a) The appointments of commandant, adjutant, and quartermaster to be five-year appointments in order to secure promotion and efficiency. Captains to command double-companies, assisted by lieutenants, and to conduct musketry instruction, &c.

(b) It will be observed that an extra captain and lieutenant are provided for first battalions; these officers, the juniors of their respective grades, would be entrusted with the charge and training of the reserves, to be noticed further on.

(c) The regiments would be composed of linked battalions—

		Present.
1st Regt., G. R. Brigade ...	1st Battalion	1st G. L. I.
	2nd Battalion	4th Goorkhas.
2nd Regt., G. R. Brigade ...	1st Battalion	2nd Goorkhas.
	2nd Battalion	3rd Goorkhas.
3rd Regt., G. R. Brigade ...	1st Battalion	5th Goorkhas.
	2nd Battalion	To be raised.

The battalions would be located, as at present, at Dharmsala, Bakloh, Dehra, Almora, and Abbottabad, respectively, the regimental head-quarters and training-grounds for reserves being at Dharmsala, Dehra, and Abbottabad.

(d) The promotion of officers would run in the linked battalions, abolishing staff corps promotion rules.

(e) In time of war the sedentary battalion would at once reinforce the active battalion with 1 field officer, 2 captains, 2 lieutenants, the commandant of the sedentary battalion remaining in charge of the head-quarters of his battalion, the reserves, and depôt of service battalion. The junior captain and lieutenant of the first battalion, should it be its turn for service, would remain in charge of their regimental depôt and of the reserves.

The battalions would stand as follows:—

	Comdt.	F.O.	Cpts.	Lieuts.	Staff.	M. O.
Service battalion	1	2	6	6	2	1
Sedentary battalion	1	...	2	2	2	1
Reserve staff	...	...	1	1	...	...

(f) I have not lost sight of the fact that the changes I propose entail considerable extra expense on the State, particularly the raising of another Goorkha battalion and the increase in the number of British officers; but as Goorkha regiments are so prominently employed on active service, it may be considered advisable to place them on the most efficient war footing.

(g) If, in the face of experience, it is still maintained that the present system of officering the Native army is satisfactory, the scheme detailed would be objected to on the score of the expense of the British officers.

I am of opinion that the present system, if persevered in, will, on the first occasion of serious warfare, lead to the most disastrous results.

The matter has so often been ably and exhaustively discussed, that it is useless entering into it here; but I would remark that all late experience goes more and more to prove that the present number of British officers is quite insufficient for a regiment on service. Even with the most trivial war, losses in conjunction with the inevitable wear and tear of campaigning, regiments have in the late expedition been almost denuded of officers; and it cannot for a moment be contended that the Native officers are as yet competent to fill their places; and should they ever be fit to do so, I think their substitution is a very questionable, if not most dangerous, policy. At present, on every occasion of actual service, even when the smallest party of men have been detailed, the demand invariably is for a "British officer to command." Luckily, with no war casualties to speak of, and by calling on other regiments officers have as yet been forthcoming,* but provided with difficulty, and strangers to the men. The system is an utterly insufficient one, and even in peace time is bad. Wing commanders, generally field officers of considerable standing, linger on in positions which degrade their rank, and are supposed to exercise a control over four companies and conduct musketry instruction—duties delegated in British regiments to from 12 to 8 officers and a musketry instructor. It is true they are supposed to be assisted by one subaltern officer each and by Native officers; but in the present constitution of regiments the former is invariably either officiating as adjutant or quartermaster in room of an absentee, or is a youngster received from a British regiment, and his time completely engrossed in studying for the qualifying

* In "Malaya" two subalterns of the royal engineers attached themselves to my regiment; in "Afghanistan" three detachments were despatched under command of officers of other regiments,—one an officer of XIth Khelat-i-Ghilzai Regiment, one an officer of 32nd Pioneers, and one with a medical officer,—although at the time nine officers were fit for duty with the regiment and otherwise employed.

examinations; on passing which he generally is removed to some other corps. As to the Native officers, the fact that they are not considered sufficiently intelligent or trustworthy, as the case may be, to conduct target practice, speaks for itself.

(2) As the subject of Native officers is so intimately connected with British officers, I would here remark that I have allowed one Native officer per company (see table appended, answer 1, page 630), as I consider with British officers one only is necessary. He would be answerable for the interior economy of his company and be a link with the Native ranks. He should be raised to the grade of Native officer, and styled "subadar," by careful selection for merit.

There would be 8 Native officers in each battalion—

4 at Rs. 100 per mensem.

4 at Rs. 80 per mensem.

Their pensions would remain as at present; and in very exceptional cases and for peculiar efficiency individuals might, on passing such tests as may be laid down, be raised to the rank of lieutenant, and receive the pay of that rank; but in all such cases they should be removed from their regiments, and employed as transport officers or in recruiting in Nepal, &c., charge of depôts, reserve, &c.

Major A. Batty, 2nd Goorkhas.

Ten as under—

1 lieutenant-colonel	...	commandant.
1 major	...	second-in-command and wing commander
1 major	...	wing commander.
2 captains	...	commanding double-companies.
2 lieutenants	...	commanding double-companies.
1 lieutenant	...	adjutant.
1 lieutenant	...	quartermaster and musketry instructor.
1 lieutenant	...	for reserves and depôt.

Total 10

The appointment of musketry instructor could be given to either of the officers commanding double-companies, the quartermaster, or the officer told off for the reserves and depôt, whoever showed most fitness for it.

Major F. F. Rowcroft, 4th Goorkhas.

Ten officers, distributed as follows:—

Commandant, second-in-command, right wing commander, and left wing commander.

Seven wing officers, of whom *one* would be adjutant, *one* instructor of musketry, *one* quartermaster. Of the other four, two wing officers to be attached to each half-battalion. With reference to the *musketry instructor*, it would seem just as important for a Native regiment to have one as for a British regiment.

Colonel R. Blair, 3rd Native Infantry.

The same as at present, with the addition of two wing officers, distributed as at present. Of the additional officers, one told off as a musketry instructor.

Colonel H. Boisragon, Commandant 4th Sikhs.

Number of British officers per battalion ten, thus:—

1 commandant, lieutenant-colonel.	2 wing officers, captains.
1 second-in-command, major.	2 wing officers, lieutenants.
1 wing commander, major.	1 adjutant, lieutenant.
	1 quartermaster, lieutenant.
	1 medical officer.
	Total 10

Lieutenant-Colonel F. H. Jenkins, Commandant Corps of Guides.

I would keep the present organization, adding one officer to command the depôt.

Lieutenant-Colonel J. J. Rowell, Commanding 2nd Sikh Infantry.

Nine, not including medical officers, as under—

	Rs.		Rs.		
1 commandant, staff pay	...	600	1 adjutant, pay	...	200
1 wing commandant and second-in-command, pay	...	270	1 musketry instructor, pay	...	150
1 wing commandant and second-in-command, pay	...	230	1 quartermaster, pay	...	150
			1 transport officer, pay	...	150
			2 wing officers, pay Rs. 100 each	...	200

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I would recommend two more wing officers for each battalion, so as to have a wing officer for each double-company; the present distribution of officers not to be otherwise disturbed.

This complement would admit of the temporary withdrawal of a certain number of officers from battalions not on active service to fill up casualties in battalions engaged in a campaign, and also to supply officers for transport and other departments which have to be made in time of war.

Major R. B. P. Campbell,
(Queen's Own) Corps of Guides.

I would make no change in the present system in this respect.

Major A. G. Ross, Commanding
1st Sikh Infantry.

Twelve, not counting the medical officer—

- 1 commandant.
- 1 second-in-command.
- 4 captains commanding double-companies.
- 4 subalterns, posted one to each double-company.
- 1 adjutant (subaltern).
- 1 quartermaster (subaltern).

Colonel A. Jenkins, Commandant
2nd Madras Native Infantry.

Eighteen European officers, *viz.*, 1 commandant, 2 wing commanders, 4 double-company commanders, 8 subalterns, 1 adjutant, 1 quartermaster, 1 surgeon.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

The following number of European officers would, I consider, be necessary for a battalion:—

- 1 commandant.
- 2 wing commanders.
- 2 wing officers, one of whom should be musketry instructor to the battalion.
- 1 adjutant.
- 1 quartermaster.
- 1 medical officer.

It will be observed that I have fixed the number of European officers required for a battalion the same as the present establishment for a regiment, and I do so for this reason, that less than seven combatant officers would not be sufficient for a regiment or a battalion, when it is borne in mind that of the present establishment of seven European officers, it is seldom that a regiment has more than four officers available for duty, besides the commandant. After deducting for officers on furlough or sick leave, and although the places of these officers on furlough or sick leave are taken by acting men, yet it frequently happens that a regiment has no more than four officers available for duty; and if the strength of European officers to a battalion were fixed at less than seven, this state of things would be worse, and the strength would be a mere nominal one.

I would recommend that the European officers of a battalion be distributed in the following manner. The designations of commandant and wing commanders sufficiently explain themselves. There would be one wing officer to each half-battalion to assist the wing commander in all his duties; and one of these two wing officers should be musketry instructor to the battalion, and should possess a first-class certificate in musketry; and an extra allowance should be granted to this officer during the time that he is engaged in the musketry instruction of the battalion; and all the companies of the battalion should be put through the annual course of musketry under the supervision of this officer, who should prepare all returns, &c., in connection therewith.

Colonel G. Hearn, Commanding
16th Madras Native Infantry.

The same as at present. I have served under the old and new systems. I much prefer the present system. The number of European officers is quite enough, but inefficient men should be removed the same as in other staff appointments. Regiments are in better order now than they were with a large number of European officers.

Colonel L. W. Buck, Commandant
20th Madras Native
Infantry.

Seven combatant officers, distributed as follows—one commandant, one officer to be in charge of every two companies, one adjutant, one quartermaster. A battalion proceeding on field service to have two additional subaltern officers.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

Supposing the present so-called irregular system be retained, there should be in time of peace at least eight British officers with a battalion; and this number should be kept up, and any officer leaving for more than two months' privilege leave should be at once replaced from a reserve, which at present does not exist. The above number of British officers is sufficient for the regimental works; but in large stations it is not enough for the garrison work. In such stations the officers of both British and Native battalions are too much harassed with courts-martial, committees, and boards of all sorts, field offices of the day, &c., &c. These exist to the same extent, if not to a greater, as when there were three times as many officers with a Native battalion and more also with a British. Officers are constantly away from their battalions when they ought to be with them, and regimental work is in consequence often slurred over; and I think that a feeling of disgust on this point is very prevalent. In my opinion it would be far better to return to the old system, and have a lieutenant-colonel commanding, major second-in-command, eight captains, one for each company, and five subalterns. Promotion to go regimentally, which the officers should be encouraged to

purchase on the old Indian system by Government lending the money at a low rate of interest, say 4 per cent. With improved pensions, this would cause a flow of promotion without additional expense to Government. A small sum in ready money, besides a pension, would induce officers to retire. In war at least two additional British officers should be posted to a battalion; but it is difficult to say how they are to be distributed. More than four mounted officers on parade are only in each other's way, except in the new attack, when places are assigned for six, but they would be on foot. Ten officers would not be too many to start on a campaign with. They soon get used up with wounds and sickness. I am quite in favor of a large number of British officers with a Native battalion, in the field at all events; and if we do not have them in cantonments, we cannot have them in the field, for there is no reserve whence to draw them.*

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Infantry.

One field officer commanding, one captain to each company, and one adjutant and one quartermaster.

This would give eleven European officers with the present number of companies (*eight*) or seven European officers to a battalion of four companies.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

As at present constituted, the number of European officers is insufficient, even if all are really good officers. There is no margin for sickness or furlough; and in time of war, when European officers would be absolutely necessary, the want would soon make itself felt. I think there should be one European officer to each double-company, besides the adjutant and quartermaster of the regiment. There would thus be six wing officers instead of four. Commandant and wing commanders to remain as at present, but some system of selection should be adopted. I consider an inefficient wing commander under the present system does more harm even than an inefficient commandant.

Major E. Faunce, Commanding 14th Madras Native Infantry.

- 1 commanding officer.
- 1 major.
- 3 captains.
- 7 subalterns, of whom one adjutant.
- 1 warrant officer, as quartermaster.

The duties of quartermaster might with advantage be performed by a warrant officer. They are of a nature more suited to the warrant than to the commissioned rank, and are not of so responsible a kind as to require a highly paid officer. A warrant officer on Rs. 150 a month could well do them. If, however, the present organization as respects officers is to be maintained—

- 1 commanding officer.
- 2 wing commanders.
- 6 wing officers.
- 1 wing officer as adjutant.
- 1 warrant officer as quartermaster.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

In replying to this question, the reasons which lead to the adoption of the present system of officering Native regiments must not be lost sight of. These were, I believe—

1st.—The desirability of raising the emoluments attached to the performance of regimental duty, so that these appointments might compete in some degree with civil employment, and so induce good officers to remain with regiments, instead of, as was formerly the case, seeking employment in civil departments, where they were more highly paid.

2nd.—The financial necessity for a reduction in the number of officers, consequent on the proposed increase of pay.

3rd.—To provide a sufficient amount of work and some responsibility, varying according to his regimental position, for each British officer with a regiment.

4th.—To allow of certain duties and responsibilities being assigned to, and required of, the Native officers.

Although this method of officering Native regiments has been somewhat complicated by the results of the system of staff corps promotion, it has on the whole, I consider, worked well; and, bearing in mind all the requirements of the case, is, in my opinion, better than any other system which could be devised. In reply to query 1, I have proposed the addition to each regiment brought up to the war strength of two wing officers, as I think the present establishment of officers, though ample for peace time, would prove insufficient to meet the casualties likely to occur in a protracted war, and one officer would be required to remain at the depot of each regiment. The difference in the emoluments enjoyed by officers in regimental employment now, and those they formerly received, is conclusively displayed in the annexed table, which shows the number of officers regimentally employed in the years

* Note.—At Delhi the 2nd Goorkhas lost—killed three lieutenants, wounded one major, one captain, and three lieutenants; total loss nine. During the mutiny the 4th Punjab Infantry had from first to last 13 officers attached to it, and had 11 or 12 of those killed or wounded.

Statement showing the number of European officers regimentally employed in the Bombay Army during each of the undermentioned years, and the annual charge for their pay and allowances.

Year.	Number of officers regimentally employed, including officers of the staff corps serving with Native regiments.	Total annual charge for pay and allowances.	Average annual emoluments of each officer.
1857 ...	651	216,423	332
1858 ...	649	242,956	374
1859 ...	633	229,107	363
1860 ...	644	227,434	353
1861 ...	628	223,292	357
1862 ...	443	176,903	399
1867 ...	305	161,208	529
1873 ...	299	183,869	615

1857, 1858, 1859, 1860, 1861, 1862, 1867, 1873, and the amount of pay they received. The contrast is very remarkable, as it appears that in 1857 there were 651 officers with regiments who received annually £216,423, while in 1873 there are 299 officers doing regimental duty who receive annually £183,869. In 1857 the average annual pay received by each regimental officer was £332; in 1873 the average is £615. It seems clear that an increase to the number of British officers with regiments could only be effected by making considerable reductions in the allowances now given to each individual; and I think the extra numbers provided at the cost of this retrograde step would not prove a benefit to regiments. Moreover, except during the short musketry season, there is not work in a Native regiment to give a proper amount of employment to a larger number of officers than are now available, especially if the Native officers are utilized, as they should be, for all the details of company command. It is objected that under the present system field officers may be

found doing subaltern's duty; but where this is so, the fault rests with the staff corps system of promotion, not with reduced officering of regiments. It is also worthy of notice that, previous to the establishment of the staff corps and of the present organization, officers who now complain of being required as field officers* to perform subordinate duties would probably have only been captains receiving captain's pay, and performing duties not at all dissimilar to those now required of them as wing officers. If it were possible to avoid it, it certainly is not desirable to have field officers performing the duties of wing officers; but as long as the staff corps system of promotion is maintained, cases of this kind must, from time to time, occur. Another important advantage in the present plan of officering regiments is that it necessitates, or ought to do so, a proper share of the duties being assigned to Native officers. In this matter I think there is room for much improvement, as it seems to me to be too readily accepted that Native officers are no use, and cannot be made useful; and assuredly they never will be so, unless a beginning is made towards requiring of them intelligent service, and dealing summarily with those who either cannot or will not yield it. Until recently there were in this army a large number of old and effete Native officers; but the recent regulation, which granted pensions after 32 instead of 40 years' service, has enabled the Commander-in-Chief to require commanding officers to dispense with the services of all such useless men, and to infuse a new and younger element into the Native commissioned grades. To recapitulate my reply to this question, I would say—

1st.—That seven officers are ample in time of peace for the efficient performance of the very moderate amount of work devolving on the British officers of a Native regiment, and that it would be detrimental to efficiency to increase the number at the cost (which it seems would be an absolute necessity) of reducing the emoluments now given to each individual.

2nd.—That an increased effort should be required of commanding officers towards elevating and utilizing their Native officers.

3rd.—That on a regiment being raised to the war strength, the establishment of British officers should be increased by two.

Brigadier-General A. B. Little,
Comdt. 25th Bo. N. (Light) I.

As mentioned in answers 1 and 2.

Colonel S. Edwards, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment, Bom-
bay Native Infantry.

1 lieutenant-colonel	...	commanding.
1 major	...	second-in-command.
3 captains	...	commanding divisions or double-companies.
3 lieutenants	...	of divisions.
1 lieutenant	...	adjutant.
1 lieutenant	...	quartermaster and paymaster.
2 or 3 sub-lieutenants.		

Colonel W. Bannerman, 4th
Bombay Rifles.

Eighteen, namely, one commandant, one second-in-command, one wing commander, one captain, and one lieutenant with each company, inclusive of 1 captain as paymaster, 1 lieutenant as adjutant, 1 lieutenant as quartermaster, and 1 lieutenant as instructor of musketry.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native In-
fantry.

Twelve,—one commandant, one second-in-command, four captains, four lieutenants (one of each rank to each double-company), one adjutant, one quartermaster, who should also be paymaster.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

<i>Peace establishment.</i>		<i>War establishment.</i>	
1 commandant.		1 commandant.	
2 wing commanders.		2 wing commanders.	
1 adjutant.		1 adjutant, 1 quartermaster.	
1 quartermaster.	} Wing officers.	8 wing officers (captain and sub-terns).	
1 musketry instructor.		2 medical officers.	
2 subalterns.			
1 medical officer.			

Each company should have its British officer on service, and I would have them all *on foot*.

* Receiving the pay of field officers and a staff allowance.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

1 commandant.	1 adjutant.
1 second-in-command.	1 quartermaster and paymaster.
1 wing commander.	6 wing officers, one to each company.
Total ...	11 European officers.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

The safety of our Native army in war time depends upon its European officers; and for that reason the present number (seven), though suitable in garrisons, is utterly inadequate for the strain that would then be put upon it. At the very least two additional subalterns should be appointed to one out of every two battalions of the army, the remainder retaining their present number.

The distribution of these would be—

- 1 commandant.
- 2 wing commanders (holding the same position as majors in a European regiment).
- 1 adjutant.
- 1 quartermaster (who should also act as musketry instructor) (all these being mounted).
- 4 battalion officers, dismounted; each to command a half-company on parade, and to perform all duties connected with the interior economy of their companies, &c., &c., as before the late organization.
- 1 medical officer.

Total 10 officers.

In war time I would attach two more officers from a battalion not proceeding on service to replace casualties.

Colonel A. Carnegie, 21st Bombay Native Infantry.

In the first place I consider that each battalion on the peace establishment should be sub-divided into three grand divisions, or double-companies, and for duty therewith there ought to be twelve European officers, distributed as follows:—

1 colonel, commandant.	3 lieutenants, and
1 major, second-in-command.	3 sub-lieutenants, being one sub-
3 captains, one for each grand division.	altern per company.
	1 lieutenant and adjutant.

One of the subalterns should act as quartermaster and paymaster in addition to his other duties, the adjutant being entirely relieved of the paymastership.

Colonel J. Fairbrother, Commanding
22nd Bombay Native Infantry.

Sixteen—

- 1 colonel or lieutenant-colonel commandant.
- 2 lieutenant-colonels or majors.
- 6 captains,—one for each company; nothing less will do to insure bringing out the full fighting qualities of a company of Native soldiers.
- 6 subalterns, thus—
 - 1 the best drill adjutant *only*.
 - 1 the best accountant, pay and quartermaster.
 - 1 the best musketry instructor.
- 3 others to fill vacancies caused by men on the sick list, furlough and temporarily transferred to the staff; but there should be not less than 13 European officers, including the medical officer with a regiment in time of peace, and not less than 16 in time of war; then one could be spared to look after the baggage of the regiment when the quartermaster was taken up with other duties, such as marking out the ground for encamping, &c.
- 1 medical officer.

Total 16

Lieutenant-Colonel O. V. Tanner, 25th Bombay Native Infantry.

With the battalion on service there should be 11, *viz.*—

1 lieutenant-colonel.	4 captains.
2 wing commanders.	4 subalterns.

These might be slightly reduced in garrison.

5. Do you consider that it would be an advantage to have regiments of two, three, or four battalions?

Colonel J. Duran, Commanding
27th Punjab Native Infantry.

I consider a regiment of two battalions would be most advantageous, both on the score of efficiency and economy.

Colonel H. S. Oldard, Commandant,
41st Bengal Native Infantry.

I do not think it would be an advantage to have regiments of two, three, or four battalions as regards army organization; and the massing of battalions would, I think, be dangerous politically.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

I see no advantage in more than *one*-battalion regiment, *provided* they are CLASS regiments. The first reserve, of the same CLASS regiment, *which was not under orders for recruits*, could be made available to complete vacancies, &c., and to take the place of recruits of the regiment *ordered on service*. The regiment of two or three *battalions* might have its battalions scattered all over India at the time that any one of its battalions required accession of strength.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Three corps as at present constituted to be formed into one regiment of two battalions. There are available then for the above purpose (including additional musketry instructors) 22 European officers and 1,800 sepoys.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

I think it would be advantageous to have regiments of two battalions each. When one battalion was engaged on service, or ordered into the field, its complement could always be made up from the other battalion, as also replace at the end of the war all casualties that had occurred in the battalion. In fact, it would act as its reserve battalion when the other went on service.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

I consider the regiment should consist of a *depôt* and two battalions, the two service battalions being capable of expansion into four battalions, as already explained in the preceding page of this report.

I object to regiments of more battalions on the following grounds:—

- (a) The cadres of officers would become too large.
- (b) The district from which a regiment is recruited would become inconveniently large for training purposes and for mobilization of reserves.
- (c) The number of units for recruiting would be reduced, whereas our object on political grounds should be to have as many units as are compatible with economy. This point is more fully treated in answer 10.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

I consider it would be highly advantageous to have regiments of three linked battalions, for reasons given in the three following replies (to questions 6, 7, and 8).

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

No; I am of opinion that a system of single battalions with two reserves, as recommended hereafter, would be more suitable to the Native army.

Lieut.-Col. R. J. Walker, 17th Native Infantry.

Yes, it would be an advantage to have regiments of two battalions.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

I consider that every Native infantry regiment should consist of two battalions—a service and a *depôt* (or *sedentary*), the former on a permanent war-footing of 800 men, the latter on a peace establishment of 600 to be increased if necessary in time of war.

Lieutenant-Colonel T. B. Norman, Commanding 24th Punjab Native Infantry.

Yes, provided that the battalions were composed of similar classes. I would recommend that each regiment should consist of four battalions.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

I have always been of opinion that a satisfactory system of regimental promotion is scarcely possible in regiments in which there are only seven officers. What is looked for and desired by the officers of an army is a reasonable flow of promotion, by which each officer may hope in a certain time to attain a certain position. It can scarcely be considered when the position of wing commander may be held by a captain in one regiment, and by an old staff corps lieutenant-colonel in another; and yet such is possible if the system of regimental promotion be applied to the present establishment of seven officers in a battalion.

I am therefore inclined to think it would be better to have regiments of two or three battalions, the promotion to go in regiments not in battalions. I am aware that objections to this have been urged from time to time, but I think they have been much exaggerated.

It would, I admit, be objectionable to move an officer who has served continuously with Hindustanis to a Punjab regiment, or to one composed exclusively of Sikhs or Goorkhas, and *vice versa*; but I cannot see any objection to the transfer of an officer from one regiment to another composed of the same classes, and in which it will be found the men come from the same districts and even villages as those with whom he has been accustomed to serve. There would be no difficulty in arranging this.

The wing commanders and wing officers of a regiment are, as a rule, brought into such constant contact with their men, that they soon learn all about them and their interests.

The fact of my own recent transfer from one Punjab infantry regiment, in which I had served eleven years, to another of the same class may perhaps give me a claim to some experience from which to speak in connection with this question, and it is this which enables me to say the objections to such transfer have been exaggerated.

Lieut.-Col. G. C. Rowcroft, 35th Native Infantry.

Of two battalions only.

Lieutenant-Colonel F. M. Armstrong, 45th (Rattray's Sikhs) Native Infantry.

I see no great advantage to be derived from this.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I am of opinion that regiments should be linked together in two or three battalions. I am not sure which number would be most suitable, but let two be taken as a tentative measure. The advantages which I claim for this system are not only those connected with the promotion of European officers, though some advocate its introduction chiefly on these grounds, but by the adoption of such a plan it is obvious that, when a force is organized for service, one battalion can be sent into the field made up at once to full strength by the other, which acts as a feeder, supplying the battalion to which it is coupled with additional officers and men either for immediate service, or to fill up the gaps caused by casualties. It would of course be most desirable that these duties should be taken by each battalion in turn. In theory, this system of linked battalions seems to me to work very easily. For instance, take two Punjab regiments, which by the introduction of this system have been linked together. The 1st battalion is stationed at the fixed head-quarters—say Jullundur—and has a certain area assigned to it within which its recruiting is carried on. The 2nd battalion is quartered at Lucknow. A force is suddenly ordered on field service, and the 2nd battalion is directed to join it. The 1st battalion instantly sends about 250 thoroughly trained soldiers to the 2nd battalion at Lucknow, completing its full war complement, and at the same time calls out its reserves, the greater proportion of which are stationed within the recruiting area and readily obtained. The sick and weakly men are sent from the 2nd battalion to the 1st, which serves as a depôt. In this manner both battalions are made up to service strength: the one fully equipped for a campaign, the other ready to support it. It is true that this system in all its integrity can only be applied to what we call Punjab regiments, or to those regiments which are recruited in the North-Western Provinces and Oudh. To the Punjab regiments it seems particularly suited, composed as they are, or ought to be, of about an equal number of Sikhs and Punjabi Muhammadans, with a small proportion, one-eighth, of Dogras and Pathans. It is clear, then, that when a Punjab regiment is quartered in the Punjab, it is within the area from which the greater proportion of its recruits are drawn, the Pathan element, for obvious reasons, not being taken into account. In like manner a mixed regiment, like the 4th Native Infantry, would, if stationed in Oudh, be in the centre of its recruiting area. This system, however, would not be applicable to those regiments which are recruited from districts widely separated from each other; but they are few in number, amounting, exclusive of the Assam regiments, to about ten, and in point of fact are seldom, if ever, sent on service.

Major R. A. Wauchops, 14th Sikhs.

Each regiment to consist of four battalions.

Major A. C. W. Crooksbank, 32nd Pioneers.

Certainly no present advantage. And there never could be any, unless all the battalions were of the same class, to produce which would necessitate a complete dislocation of the whole army, which I would most strongly deprecate, as calculated to completely upset the minds of the Natives and produce uneasiness and discontent. Had it been thought of at first, and the battalions so arranged and numbered, it might possibly have answered, but now it would be the reverse, and so far as the men are concerned the linking would be merely nominal and confined to the army list. The Sind Horse and Central India Horse are examples of linked battalions; but so far as the rank and file are concerned, they might as well be single regiments. To link regiments of different classes would be meaningless, as the men would not be interchangeable.

Captain H. D. Hutchinson, 40th Native Infantry.

No, I would have a system of linked battalions. When a regiment is ordered on service, it should receive at once, from its linked battalion, officers and men, with their accoutrements, arms, and clothing, complete to bring it up to its full war strength; and in return it should make over to it all its recruits and ineffectives. There would be five officers left with the battalion remaining behind, *viz.*, the commandant, two wing commanders, adjutant, and quartermaster, quite enough to carry on the duties efficiently, which at such a time would be chiefly the entertaining and training of recruits. On the other hand, the battalion starting on active service would be fully officered and manned, and proportionately efficient.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Vide answer 4.

Major A. Battré, 2nd Goorkhas.

No. On the contrary, I see many drawbacks. Two battalions are practically two separate regiments; frequently being transferred from one battalion to the other would have much the same effect as going to another regiment. Officers and men would not know each other as they should; the officer would take less interest in his men. No one would feel that his battalion was his home. *Espirit de corps* would suffer. The system would be particularly disliked by the Natives, who wish to make the battalions of their choice their homes as long as they remain in the army.

Major F. F. Rowcroft, 4th Goorkhas.

I think it would be advantageous to have each regiment of two battalions. One battalion ordered on active service could be increased to war strength from the other battalion.

Colonel R. Blair, 3rd Native Infantry.

On the whole, I consider the advantages are on the side of the present system.

Colonel H. Boieragon, Commandant 4th Sikhs.

Regiments of three battalions, viz., 1st in the first, or fighting, line, and ready always for immediate service; 2nd, its reserve to feed it at once on any sudden emergency, or on account of war vacancies; 3rd, invalided men, only to be called out when absolutely necessary. Strength of 1st battalion, as answered in question No. 1; that of No. 2, half that of No. 1; of No. 3, half of No. 2.

No. 2 battalion could always supply No. 1 up to 800 sepoy, and other ranks in proportion, and No. 3, No. 2; but this should seldom be necessary, if No. 2 always maintained its full complement and recruited directly it was below its standard; however, if any sudden and unforeseen emergency absolutely necessitated No. 3 feeding No. 2, it would assist in bearing the first brunt of the shock of arms, would only be temporary, and until No. 2 could supply No. 1 with men.

Lieutenant-Colonel F. H. Jenkins, Commandant Corps of Guides.

The present organization seems to work well, and I would not change it, unless it can be clearly shown that some great advantage as regards efficiency or cheapness will be gained by the change. It is easy to make battalions on paper, but I do not think it would be wise to upset the organization of the army on theoretical grounds, because, under any system, it will take years to make the new battalions as efficient as those we have now.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Yes, of four battalions.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

Yes, regiments of three battalions, the men to be transferable from one battalion to another, so that, on the outbreak of a war, one or two battalions of a regiment could at once be placed on a war footing.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

If this means linking existing regiments together, I cannot see any advantage in making such a sweeping change in the organization of the Native army. If carried out, it would not get into proper working order until the present generation of men had passed away, if even then. The present regimental *esprit de corps* would be destroyed, and there would be constant jealousy between the different battalions, who had each been trained under different commanders, and perhaps utterly different circumstances and associations.

Major A. G. Ross, Commanding 1st Sikh Infantry.

Three battalions.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

There would be no advantage in having regiments of two, three, or four battalions; for the battalions would be so separated, and so long apart, that the officers of one battalion would be entire strangers to the men of the other battalions, and would have no influence with them at first.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

This has already been partly answered in No. 1; but should it be determined on to divide regiments into battalions, I see no advantage to be gained by dividing them into more than two battalions.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

A regiment should consist of two battalions—right and left battalions. The head-quarters should be fixed for ten years: one battalion should be sedentary and be the reserve of the other. The complement of European officers to be the same as at present, except there should be one commandant, one adjutant, one quartermaster, one Native adjutant, and one havildar-major. When a battalion is detached, the commandant of the battalion to receive full command allowance, and required staff to be appointed. The two battalions to be stationed together. For service or foreign service, efficient men to be selected from the regiment. None but strong, healthy men would be sent on service or foreign service: there should then be few deaths on foreign service and consequently much fewer pensions to heirs.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

I consider it would be advantageous to have regiments of four battalions; men could be drafted from one to another for service.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I cannot say that I see any advantage to be gained by having regiments of two, three, or four battalions.

Lieutenant-Colonel F. H. Tyrrel, 37th Madras Infantry.

All the great military powers of Europe have adopted the system of four battalions to the regiment: with their enormous hosts of men it is absolutely necessary to have the administrative unit, viz., the regiment, as large as possible to reduce friction; and the same reason applies in a lesser degree to our smaller army. The system has also tactical advantages.

When battalions of one regiment are brigaded together in the field they work well together, owing to the influence of *esprit de corps* and comradeship, and the officers all know each other, which is a great advantage.

Then a regiment with three or four battalions contains its *dépôt* in itself: one of its battalions can always be made into a *dépôt* for the others.

Lieutenant-Colonel P. A. Carnegie, 89th Madras Native Infantry.

Yes, I consider that a two-battalion regiment would certainly be an improvement on the present system; one would act as a feeder to the other when on service.

Major E. Faunce, Commanding 14th Madras Native Infantry.

I would have regiments of two battalions, all ranks being interchangeable, enlisted for the *regiment*, and liable to transfer from one to the other on occasion of war, or in any case as required. Battalions ordered to the front on the outbreak of war would be at once raised to full strength of 800 privates from the other battalion of the regiment which would receive, and replace, men of all ranks—medical units, recruits, &c.—that could not accompany their own battalion. Battalions proceeding to Burma or to distant stations could be filled up in the same way, taking with it only effective men. Madras regiments in Burma and at the many stations north of the Kistna are far removed from their natural recruiting ground; were they divided into two battalions, and moves properly regulated, the battalion in the south would recruit for the other, as also in case of war. The raising the strength of regiments to a war footing need cause no increase of Native infantry officers; companies of 150 men are none too large for service and would speedily be reduced to less than 100. When my regiment came to Calcutta in November last year, having shortly before discharged to pension a large number of men, it could only bring 493 privates, allowing for depôt, &c. Since then the effective strength with the colors has been reduced to 467 privates; had we had a second battalion this would not have occurred. In the same way, when the 25th Madras Native Infantry went to Malta, the 21st, 30th, and 36th Madras Native Infantry to the North-Western Frontier, they had to be filled up by volunteers from many regiments: much time, trouble, and inconvenience would have been saved had there been second battalions. Natives, Madras Natives at least—and throughout I speak only of Madras, not knowing anything of the Bengal soldier—are very conservative in some things. Nothing, I believe, has done the Madras army so much harm and been so detrimental to recruiting and *esprit de corps*—strongly felt by the Madras sepoy—as the constant change of officers. The best men will not *volunteer*; but if they had a connection with another ^{Regiment} ^{Battalion} and its officers, they would most readily be transferred. To instance this feeling, when the 25th Madras Native Infantry were ordered to Malta, over 100 volunteers were asked for from my regiment which had previously volunteered for service in Europe; within an hour and a half of the receipt of demand a reply was sent that 70 odd men would go. On that occasion the men of the wing I then commanded said: "We all want to go, but not as volunteers. Tell us to start now as a regiment and we will go straight to the railway station; but why should we 14th go and earn a good name for the 25th? If you will promise we shall wear our own facings, our own cap number even, we are ready to go." And those that did volunteer for 25th made a request that one of the *European* officers (two Native officers had volunteered) might go with them, in order, they said, to look after them, as volunteers were always looked down on by officers of other regiments—"Oh! he is not one of *ours*, but a volunteer from ———." There is foundation for this feeling amongst the men.

Brigadier-General H. F. Brooks, Adjutant-General, Bombay Army.

A measure such as that indicated in the above questions seems the only possible method of dispensing with the staff corps system of promotion, and carrying on promotion regimentally. Except with this object in view, I see no advantage in the suggested arrangement; and inasmuch as it would have the effect of transferring officers from one regiment to another, there would be some force in the objections which would be urged against its adoption on this score. I do not however consider this objection at all insuperable, as such transfers would only happen at considerable intervals, and seldom affect more than one officer on each occasion. Regiments thus linked together should be composed of similar elements, in order that an officer transferred on promotion from one battalion to another would have nothing to learn as to the habits and customs of the men with whom he had to deal. Although it would be possible to amalgamate the lists of British officers of four regiments for the purposes of promotion (transfers only being made on the occurrence of substantive steps), I would not recommend any intimate connection between the Native ranks of the regiments, believing that the more each regiment of the Native army is kept distinct and separate from the others, the better for the safety and loyalty of the whole.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Infantry.

In answering these two questions (5 and 6), as I do, together, it is, I take it for granted, to be understood that the staff corps is a thing of the past, and that a new system is sought for to regulate the promotion of officers, otherwise I do not see any object to be gained in creating regiments of two, three, or four battalions.

In creating regiments by more than one battalion, I think it should first of all be decided what number of officers should be with *each* battalion, then, according to that number would I link battalions. Thus, if a battalion has seven officers, then I would link four battalions to form a regiment, having a total of 28 officers.

If a battalion was to have 14 officers, then link two battalions, making a total of officers in that regiment of 28. Officers thus of the two or more battalions might then be borne on one list for promotion.

Colonel R. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

Yes, of three battalions; but I consider brigades of infantry of three regiments far more preferable. By this arrangement the identity of regiments would be preserved,—a matter of great consideration with the Natives who are very proud of the achievements of their corps.

The regiments of a brigade to have all their clothing and equipments exactly similar.

Colonel W. Bannerman, 6th Bombay Rifles.

I do not consider that it would be an advantage to have two, three, or four battalions in a regiment.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

I consider that a regiment might with advantage be formed of two battalions, one only of which would be sent on service at one time, the other supplying men required to make it up to its war establishment, and also taking charge of its depôt and families.

These linked battalions should frequently be brigaded together; and when not in the same brigade, should be located in neighbouring stations, the object being to strengthen the connection between them as much as possible.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

I am doubtful if the breaking up of regiments into battalions will be advantageous. For efficiency generally I consider *separate* regiments (if strong enough) best but; as regards economy, the battalion arrangement would perhaps enable a smaller force to be kept up during peace, which being one of the main objects to be kept in view, a system of two battalions to a regiment would be preferable to three or four.

Colonel R. Mallsby, Commandant 13th Bombay Native Infantry.

If regiments were localized, I can understand that there might be an advantage in having two battalions; but as I am opposed to localization, I see no advantage whatever. If promotion, too, is to go regimentally, it might be well to have regiments of two battalions, as the promotion would probably be more equalized throughout the army if going amongst groups of 22 officers than groups of 11.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

Yes, a regiment should be composed of two battalions. On one being sent on service, the other would furnish the additional men and officers required: *vide* replies Nos. 2 and 4.

Colonel A. Carnegie, 21st Bombay Native Infantry.

In continuation of my reply to question No. 4, I consider that a two-battalion regiment would be most efficient should a sudden emergency arise, as I shall now endeavour to prove. The two linked battalions should not, if possible, be sent on service at the same time; but in order at once to bring the fighting battalion up to the proposed war establishment of 800 men, a grand division of two companies from the remaining battalion (which would become the depôt battalion) with its officers complete would join it, and thus the difficulty which at present presents itself of collecting volunteers from every regiment in the service on any emergency taking place would be obviated. It would become the duty of the depôt battalion to arrange for filling up vacancies in the fighting battalion as required, and also to take over charge of its families during its absence.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

I consider it would be of the greatest advantage to have regiments of two battalions, so that, when one battalion was ordered on service, it could be filled up to its war establishment at once from the other battalion, not only with efficient non-commissioned officers and men, but also with European and Native officers if required, sick and weakly men being transferred from the first named to the second, thus most effectively completing one battalion, and the other to be turned into a drill depôt for the time being.

Lieutenant-Colonel O. V. Tanner Commanding 29th Bombay Native Infantry.

Yes, a double-battalion regiment, or two and a depôt battalion, which latter would have less officers.

6. Should the officers be borne on one regimental list for promotion?

Col. J. Doran, Comdg. 27th P. N. I.

Yes.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I think having all the officers of a regiment of two, three, or four battalions interchangeable, and borne on a general list for promotion, would be decidedly objectionable. I consider personal influence the chief element of success with Native troops; and changing British officers, except under some circumstances, actually injurious. The less British officers of Native battalions are changed the better.

Colonel E. Dandridge, Commanding 40th Native Infantry.

As long as the present system of staff corps promotion obtains, no; for officers who may come into the service hereafter, yes.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Yes, if regiments are composed of two or more battalions, I consider all officers should be borne on one regimental list for promotion. In this case, however, there would be no necessity for a second-in-command to each battalion.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Yes, promotion running throughout the regiment, as in double-battalion regiments of the line, the places of seconded and absent officers being filled by probationers as now.

Lieutenant-Colonel P. Harris,
Commanding 11th Native In-
fantry.

The officers would be borne on one list for promotion throughout the three battalions. This would distribute the promotion more evenly than at present; a deserving officer unluckily placed in his own battalion could then be transferred favorably to a sister battalion, without what might otherwise be regarded as a hardship on others.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

Except on an emergency, I would change the officers as little as possible, for it is very desirable that they should know their men thoroughly.

Lieutenant-Colonel R. G.
Rogers, Commanding 20th Pun-
jab Native Infantry.

In the service battalion the promotion (excepting to posts of commander and second-in-command of the depôt battalion) should go by battalion seniority. Wing officer to quartermaster, the latter to adjutant and so up; any officer unfit for promotion being unhesitatingly sent back to the depôt battalion, from which none who have not been thoroughly trained with it and shown zeal, activity, intelligence, and general fitness in every respect (including knowledge of their men and their language and customs, &c., and of field and office duties) or who have not proved good riders, should be transferred, as the service battalion should be the ambition and reward of all ranks. And in it none but the best officers and men should find, or retain, a place.

In the depôt battalion army seniority should govern all promotions except to posts of commander, and second-in-command which should go by merit only (as should all transfers to the service battalion), officers where necessary being appointed from the service battalion, or some other of the class, to these two berths.

Every officer on appointment to the Native army should be called on to elect (as far as the exigencies of the service permit) the race (Hindustanis, Goorkha, Punjabi, &c.) with which he wishes to serve, and with that race he should be required to remain throughout his regimental service, exchanges or transfers from one regiment to another, of the same class or race, being made or permitted as deemed advisable. Thus, in case of severe strain on any one regiment, its vacancies could at once be filled by officers accustomed to serve with men of the race composing it, and not, as now, by officers often utterly ignorant of the language, customs, and prejudices of their men.

Lieutenant-Colonel P. B. Nor-
man, Commanding 24th Punjab
Native Infantry.

Yes, provided that the battalions composing the regiments were of similar classes. I would not recommend that an officer who had served a number of years with Hindustanis should be transferred to a batta-
lion of Punjabis or *vice versa*. By the arrangement I propose, this would be obviated.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab
Native Infantry.

Yes, for the reasons given in answer 5: I think it would be better to have regiments of two or three battalions, and promotion to go regimentally.

Lieutenant-Colonel G. C. Row-
croft, 35th Native Infantry.

If the staff corps is continued on its present footing, I would have *army* promotion as at present. *Regimental* promotion to go by the regimental list, saving under exceptional circumstances, such as large casualties in action, notorious incapacity, &c.

Lieutenant-Colonel F. M. Arm-
strong, Commanding 45th (Nat-
tray's Sikhs) Native Infantry.

If the battalions were of one class, the officer certainly would have the advantage of knowing the habits and customs of the men, but otherwise an officer on transfer to another battalion would be as much a stranger to the men as if he came from any other regiment. It would also lead to constant changes of battalion officers—a thing not to be desired.

Major R. S. Robertson, 4th
Native Infantry, Officiating As-
sistant Adjutant-General, Allah-
abad Division.

As long as the staff corps exists, and the proportion of field officers is so large, I do not consider it practicable to have officers borne on one regimental list for promotion: the inequalities of promotion would be too great, and would inevitably, in my opinion, give rise to discontent. It is a point to be considered whether this system might not be made applicable to those officers who entered the service after 1858; and if the staff corps was abolished from that date, many difficulties in the way of re-organization would be smoothed away, and much unnecessary expense saved.

Major R.A. Wauchope, 14th Sikhs.

Yes, and so equalize promotion in the army.

Major A. C. W. Crookshank,
32nd Pioneers.

I don't see what would be gained by this, and there would be much loss. At present an officer's interest and *esprit de corps* are confined to his own battalion; in the proposed system it would be spread over three or four. There would be a fostering of a desire to change battalions according as they had popular commanding officers and popular stations. *Esprit de corps* would suffer, and there would be a good deal of battalion cliquism.

I certainly think the system would disturb men's minds, and I don't see that there is any advantage in a man being promoted into a battalion in which he had once served. Native regiments change so much, that an officer might just as well join a new regiment, and in the case of an unpopular officer (and Natives have their dislikes) he had much better join a new regiment than a battalion in which he is known. Transfers would in my opinion, be just as easily effected under the single battalion system.

If, however, Government contemplate the breaking up of the staff corps, then this linking of regiments is the only way to obtain a sufficiently strong cadre for purposes of promotion. But I trust this is not contemplated. The staff corps has very many advantages which will become more and more apparent as time passes on and the normal and originally intended condition of the corps is attained.

Captain H. D. Hutchinson,
40th Native Infantry.

No; on separate lists. Those borrowed by the linked battalion in time of war would return to their own battalions in time of peace.

Col. R. Sale Hill, Commanding
1st Goorkhas (Light Infantry).

Vide answer 4.

Major A. Battye, 2nd Goorkhas.

I would altogether condemn the two-battalion system.

Each regiment, as it is, should be kept separate, and its members permitted to preserve its history, services and associations intact, for these are great incentives to *esprit de corps* and should not be hastily wiped away. Every measure which tends to lessen *esprit de corps* sows the seeds, however few, of misbehaviour in the hour of trial. However many officers there may be in a battalion, there is no reason why the staff corps system of promotion should not be made to answer, if the pension and leave rules agreed more than they do. For instance, if an officer took all the furlough he is entitled to, he has to serve longer for his pension. If to furlough he adds occasional general leave, service for pension is prolonged still more. This prevents his retiring as soon as he otherwise could.

I allude to the furlough rules of 1868, as those of 1875 were not made applicable to officers then in the service, who had to re-commence service towards furlough from date of accepting them. If all leave was allowed to count as service towards pension, one deterrent, at all events to retirement, would be removed. But this alone would not be sufficient to always to prevent the possibility of there being a greater number of field officers in a battalion than there was suitable work for. Therefore, the pension rules must be so altered as to allow of more retirements between 20 and 28 years' service. No one will now recommend that promotion should be slower than in the staff corps. If therefore officers of two battalions were borne on one list for promotion, and the result was slower promotion, means would have to be adopted to induce retirement. This can be done just as easily in the staff corps, and officers still kept in their own battalions.

Major F. F. Bowcroft, 4th
Goorkhas.

Yes, certainly.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

Three captains and 3 subalterns should amply suffice for No. 2 battalion, or *reserve* of No. 1, and the two battalions together would give a total of 16 European officers, *i.e.*, one British officer *per company* to No. 1 *on service*, leaving thus one captain and one lieutenant with its reserve, No. 2 battalion, for recruiting purposes, &c. No. 3, or its invalid battalion, would require no British officers, if the system suggested herein could be carried out. The officers to be borne on one regimental list for promotion.

Lieut.-Col. J. J. Boswell, Com-
manding 2nd Sikh Infantry.

Yes, as in the rifles.

Lieut.-Col. B. R. Chambers,
Commanding 6th P. I.

Yes, one regimental list for promotion of officers.

Major R. B. P. P. Campbell,
(Queen's Own) Corps of Guides.

Vide answer 5.

Major A. G. Ross, Command-
ing 1st Sikh Infantry.

The officers to be borne on one regimental list for promotion.

Colonel A. Jenkins, Command-
ant 2nd Madras N. I.

The officers should be borne on the lists of battalions for promotion

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

The officers should be borne on one regimental list for promotion in the regiment.

Colonel G. Hearn, Command-
ing 15th Madras N. I.

Yes.

Colonel L. W. Buck, Com-
mandant 20th Madras N. I.

And the officers should be borne on one regimental list for promotion.

Colonel W. A. Gib, Command-
ant 25th Madras Native
Infantry.

Whether in one, two, three, or four battalions, I think the promotion of the British officers should go in each battalion, provided they are fit for it, and if not, their services should be dispensed with. There is nothing worse for Native troops, I think, than a constant change of their officers.

Lieutenant-Colonel F. H.
Tyrrell, 37th Madras Native
Infantry.

Yes; I think it would tend to equalize the rate of promotion throughout the army, and to promote *esprit de corps*, and consequently efficiency.

Lieutenant-Colonel P. A. Car-
negy, 39th Madras Native
Infantry.

Yes; the more young officers there are to select from for the regimental staff appointments, and more especially that of adjutant, the better for the regiment. At present there is practically no such thing as selection; besides in time of war one battalion could supply the other one with European officers.

Major E. Fawcett, Commanding 14th Madras Native Infantry.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

Colonel S. Edwardes, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

Colonel B. Mallaby, Commandant, 13th Bombay Native Infantry.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

Lieutenant-Colonel O. V. Tanner, Commanding 29th Bombay Native Infantry.

7. Do you consider that there should be a fixed head-quarters for the regiment at which each battalion should be stationed in turn?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Colonel H. B. Osbald, Commandant 41st Bengal Native Infantry.

Colonel E. Danbridge, Commanding 40th Native Infantry.

Colonel G. W. Fraser, Commandant 30th Native Infantry.

Yes, if only for reasons given above this is essential, and the inequalities of promotion to regimental positions would be much fewer with the larger number of officers.

Vide answer 5.

Vide answer 5.

Yes, as follows:—

- 1st brigade, say, grenadiers.
- 2nd " " rifles.
- 3rd " " pioneers, &c.
- 1 colonel commandant with colonel's
- 3 lieutenant-colonels.
- 3 majors.
- 9 captains.
- 15 lieutenants.
- 9 sub-lieutenants.

The European officers to be on one list for promotion, and exchanged from one battalion to the other when required.

If the battalion system is adopted, the promotion of officers would have to be on one list in each regiment, but I do not consider constant change of officers from battalion to battalion advantageous to a corps; on the contrary to be avoided as much as possible in a Native regiment where officers and men should learn to know one another, as they only can by keeping together.

If the system of promotion by time is abandoned, there seems to be only two other modes by which promotion may be regulated, 1stly, on a general list, and 2ndly on a regimental list. The objection to the first is that it would necessitate constant changes in officers in regiments,—an evil it is impossible to overrate; the second seems the only alternative, and the disadvantage attached to it in a one-battalion regiment of 11 officers I have referred to in answer 5.

Certainly; they would belong to one regiment, and could be transferred, when necessary, from one battalion to the other.

Yes; exchanges being allowed from one battalion to the other, or into the staff corps, on the same conditions as are in force in the home service.

Yes; all the officers to be borne on one regimental list for promotion, and whatever honors and distinctions were won by one battalion to be also bestowed on the other, and this would be an inducement to commanding officers to send their best men on field service. In fact, I would blend the two battalions into one regiment as much as the right and left half battalions are now, with the exception that the commanding officer of one battalion could not interfere with the commanding officer of the other.

Yes; decidedly.

Yes, I consider such an arrangement would facilitate recruiting, and give each regiment a certain amount of local prestige and *esprit de corps*.

I do not. I think it would be a very dangerous system to introduce. But I think it would be a great advantage for each battalion to have fixed head-quarters, that is, if each battalion were a distinct regiment, as at present.

I consider that there should be a fixed recruiting depot for each regiment, and that it would be advantageous for corps to be occasionally quartered in the districts from which it is recruited.

In the case of three or more battalions to each regiment, this might be advisable; otherwise I do not see how it could be managed, as it would make regiments virtually local. But a depot station for each regiment might be advantageous, where all recruits could be sent on

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

enlistment and be drilled, and where, in time of war, families of the men and heavy baggage of the battalion on service could be sent. An extra company to each battalion as a depôt company would have its advantages for this purpose.

The recruiting head-quarters of the regiment should be fixed, and its depôt battalion permanently located there. The service battalions should not be localized, though, if convenient, they might with advantage at times be quartered within their recruiting areas. It would be highly inconvenient for administrative purposes to be constantly changing the battalion at the recruiting head-quarters of the regiment.

Lieutenant Colonel P. Harris,
Commanding 11th Native Infantry.

There should be a fixed head-quarter or depôt station for each regiment. This should of course be in the districts from which the regiment draws its recruits, and at it one of the linked battalions should always be stationed. It would be the special duty of this battalion to supply the other two with recruits, and being located in their recruiting fields, the very best men would be procurable. I am of opinion that a selected European officer of the depôt battalion should be entrusted with recruiting. The present system of employing non-commissioned officers and men on this duty is very unsatisfactory, and does not result, for obvious reasons, in the best men being enlisted. In time of war the depôt battalion would also be able to furnish its sister battalion with officers and men, so that their full war establishment of *trained* soldiers would be obtained at once, and permanently maintained.

Lieutenant-Colonel L. H. Williams,
14th Sikhs.

I should recommend that the regiment be localized in or near the district from which it is recruited.

Lieutenant-Colonel R. J. Walker,
17th Native Infantry.

Yes, a fixed head-quarters would be necessary to make the above arrangement of any use.

Lieutenant-Colonel R. G. Rogers,
Commanding 20th Punjab Native
Infantry.

The depôt battalion should have fixed head-quarters permanently located in or at a convenient distance from their recruiting ground. To this the service battalion should never be sent except in ordinary course, and then only to serve with, not in relief of, its depôt battalion. An occasional temporary meeting of the two battalions would tend to keep alive *esprit de corps*, and the service battalion men being slightly higher paid as they should be, the knowledge thereof would prove an incentive to the depôt men to strive for transfer.

Lieutenant-Colonel F. B. Norman,
Commanding 24th Punjab Native
Infantry.

For all class regiments, such as Goorkhas and Muzbis, it is a good plan, but I think it inadvisable for Punjab regiments. I consider it impolitic to localize corps too much.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

I am inclined to think it would be better to have a fixed head-quarters for each regiment if composed of two or three battalions, and that each battalion should be stationed there in turn. At this station might be kept the bulk of the regimental records, the arms, accoutrements, and clothing of the men of the reserve.

Lieutenant-Colonel G. C. Rowcroft,
35th Native Infantry.

No, unless it were intended to create territorial regiments, recruited from certain districts *only*. I would recommend that, as far as practicable, both battalions of a regiment should be in the same command. For instance, one at Meerut, the other at Agra, one at Allahabad, the other at Cawnpore or Benares. This of course on the supposition that there is no fixed head-quarters.

Lieutenant-Colonel F. M. Armstrong,
Commanding 45th (Rattray's Sikhs) Native Infantry.

Yes, if the system of regiments of two or more battalions is to be carried out, and if these regiments are formed of battalions of the same class.

Major R. S. Robertson, 4th
Native Infantry, Officiating Assistant
Adjutant-General, Allahabad
Division.

I consider that it would be most desirable to have one. By fixing the head-quarters within the area in which recruiting is to be carried on, it would greatly facilitate enlistment, and enable commanding officers to obtain a superior class of recruits. It is also necessary for the training of the reserves, the greater number of whom ought to reside within this area.

Major R. A. Wauchop, 14th
Sikhs.

I think that there should be a fixed head-quarters for the regiment near the recruiting district, and in some of them I would have each battalion of the regiment stationed in turn, but I would avoid having too many battalions of one class in their own country; and in such places I would have a depôt consisting of two European officers and some intelligent non-commissioned officers and sepoy from each battalion to drill the reserves and enlist recruits.

Major A. C. W. Crookshank,
82nd Pioneers.

This question presupposes a foregone conclusion. I think every regiment should have a fixed head-quarters station, and be stationed there occasionally, the depôt company being stationed there in war time. If eventually battalions are linked, one should be a cadre depôt battalion and be permanently at the head-quarter station.

Captain H. D. Hutchinson, 40th Native Infantry.

No.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Yes; Goorkha regiments are localized, and with the constant moves they experience no evil results arise; moreover, it is a boon to their families and children.

Major A. Battye, 2nd Goorkhas.

If regiments are formed into two battalions, a fixed head-quarter station would be advisable; but if it is a mixed regiment or a class-company regiment, this would not be equally beneficial to all the different classes of which it is composed, and would result in the gradual extinction of the class whose homes are furthest removed from it, as they would naturally be drawn to those battalions stationed in their own district.

I would suggest instead of two battalions of the so-called one regiment changing stations as above, that two regiments constituted alike should change stations in the same way. Officers and men might then be permitted to exchange regiments to a limited extent. If this system was found to act well, further change in the same direction could easily be carried out which might perhaps end in the two regiments being eventually made into two battalions of the same regiment if then considered desirable; but *no violent changes should be carried out at once*. It is more easy to lead up to them by degrees, feeling the way, halting or marking time where difficulties present themselves until they are removed. The dangerous tendency to rush from one extreme to another should be avoided. The system of reserves might be similarly extended hereafter, commencement being made with 200 men per regiment: *vide answer 16*.

Major F. F. Boweroft, 4th Goorkhas.

No, except in the case of Goorkha regiments.

Colonel R. Blair, 3rd Native Infantry.

I think regiments recruited in the Lower Provinces should be stationed within them, except for special reasons, such as field service.

Colonel H. Boisragon, Commandant 4th Sikhs.

No fixed head-quarters for No. 1 battalion, the first, or fighting, line which should be amenable to the usual course of relief; No. 2 should have a fixed station; No. 3 would require none.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Yes, at which depôts of battalions proceeding on service should be located.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

Yes, each battalion taking head-quarters station in turn and carrying out recruiting generally for the regiment to the extent asked for by the other battalions.

The advantages of this arrangement would tell favorably in time of war. In the late campaign many regiments were a long way from their recruiting grounds, and had increased difficulties to contend with.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

Judging from my own regiment, the Corps of Guides, who have had fixed head-quarters at Murdan since 1851, I do not think that the families of the men of the different battalions would settle at regimental head-quarters. A small proportion of the men might bring their families as long as their particular battalion was there; but directly that battalion was relieved, they would send their families to their own homes.

Major A. G. Ross, Commanding 1st Sikh Infantry.

There ought to be a fixed head-quarters for the regiment, and each battalion should be stationed there in turn.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I do not think that there should be a fixed head-quarter station for a regiment, as detached battalions would in the ordinary course of reliefs be so long from head-quarters, that but little, if any, advantage would be derived by a battalion at such distant periods going to the head-quarter station.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

I do not consider this necessary.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Yes, but only for ten years. Wherever possible, I would keep both battalions together. Most probably during the ten years one battalion will be away on service or foreign service, having left their families in their lines with the other battalion; they would return to them when the tour of service was over.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

I do not consider it would be an advantage to have a fixed head-quarters.

Colonel W. A. Gil, Commandant 25th Madras Native Infantry.

I can see no use in this. Some head-quarters would be at favorite places, and thus have an advantage over others. In a regiment of four battalions, one of the battalions would get there once in 15 years or so. There would be no use in that; besides it would add to the difficulties of the reliefs of battalions.

Lieutenant-Colonel F. H. Tyrrell,
37th Madras Native Infantry.

I think it would be an advantage to have a regiment localized in a particular district, where it might be kept all together at one large station or the different battalions at several smaller stations, one of which might be fixed as the regimental head-quarter station.

Lieutenant-Colonel P. A. Carnegie,*
39th Madras Native Infantry.

Yes; but my idea is that the majority of the men at the head-quarters should be men of 15 years' service and over, capable of performing garrison duties, but not those of a campaign, or hard work. Recruits should be enlisted and drilled there, and then passed on to the service battalion.

Major E. Fance, Commanding
14th Madras Native Infantry.

No, decidedly not. I see no advantages in it, and it is a serious disadvantage in India to give a regiment what it has not now with us as a body—a permanent connection with the civil population of any one particular place, especially of the place in which it is quartered. Of late years this has been too much lost sight of, and regiments have been kept too long in one garrison—

Three cavalry regiments have been over six years.

The other cavalry regiments ten and a half years.

Two Native infantry regiments over eight years each.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

I do not think an arrangement of this nature desirable. If it were possible, which I doubt for many reasons, chief among them the initial expense and the difficulty of obtaining satisfactory sites for such head-quarters stations, it would probably be convenient, or even desirable to give each regiment a permanent local head-quarters, to which it would return from time to time, and where the women and children should always remain. The difficulties in connection with such a scheme are, however, so numerous as to make it almost impracticable, as was, I believe, proved when an attempt was made some time ago to localize the head-quarters of the 23rd and 82nd Bengal Native Infantry (Pioneers) in the Punjab. The peculiar features of the recruiting of the Bombay army, which are more fully referred to in the replies to queries 9 and 10, enhance the difficulties in the way of applying such a system of localization to this part of India.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

No, I do not consider that there should be a fixed head-quarters for any regiment or battalion; it would not be fair on some, for one regiment might, under such circumstances, always serve at a good station, while others might always have to serve at a more unpleasant or unhealthy one.

Colonel S. Edwards, 2nd (Prince
of Wales' Own) Grenadier Regiment,
Bombay Native Infantry.

No, I do not, because it would debar some battalions from obtaining the benefit of a good climate, and restrict others to periodical visits to an unhealthy locality.

Col. W. Bannerman, 4th Bombay
Rifles.

I consider there should be no fixed head-quarters.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native In-
fantry.

This, I think, is not advisable, as it would have a tendency to localize a regiment.

Colonel H. H. James, 10th Bom-
bay Native (Light) Infantry.

The reserve or 2nd battalion would be better at a fixed head-quarters.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

No, if this were so, regular regiments would soon fall to the footing of the old local regiments, and it would inevitably produce in the minds of the men an impression of localization, or being tied to a certain spot which in time would be swarming with the relatives of men, feeding upon them and creating interests injurious to a healthy frame of mind, and drawing off their attention to matters, which at least for the present are foreign to their duty.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

No, such a system could not be carried out with any fairness to the army at large in the Bombay presidency, where the men's homes are confined almost entirely to three neighbouring districts—the Deccan, Southern Mahratta Country, and the Concan. In these only six or seven regiments are quartered, so those selected for these districts would be highly favored in comparison to the remaining 20 regiments, or, if two battalions constitute one regiment, of seven regiments, who would be permanently located in, to them, a strange part of the country, such as Guzerat, Aden, Central India, and Rajputana.

Colonel A. Carnegie, 21st Bombay
Native Infantry.

No; this would almost be tantamount to forming them into local corps, to which in my opinion there are objections. I would, however, advocate such arrangements being made in the usual reliefs of corps, that the two battalions should always be stationed as near each other as possible, in order that no delay might arise in carrying out the suggestions contained in my reply, No. 5, in the event of any sudden emergency arising.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

No; I am decidedly against this plan. The greater the mixture of castes in a regiment, and the more it moves about through the country, the better.

Lieutenant-Colonel O. V. Tanner, Commanding 23rd Bombay Native Infantry.

Yes, I do.

8. Would the families of the men be likely to settle at the head-quarters station?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Many I think would, were better quarters in the regimental lines provided for them, and if facilities for travelling were granted.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I do not think the families of the men would settle at head-quarter stations, and I do not think it advisable they should. Families are better in their own villages, as a rule. There should, however, be proper accommodation for the families, who would come now and again, as at present. I have rarely known a man worth his salt who was born and brought up with a regiment.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

I think it very undesirable to have the men's families (which means every relation, including grandfather down to his sisters and his cousins and his aunts) at a regimental head-quarters. At most 10 per cent. *bond fide* married wives and their children should be allowed; and for these married quarters should be provided.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I think they generally would if it were certain that a regiment would return to the station every third or fourth year.

Colonel G. W. Fraser, Commanding 39th Native Infantry.

No; I do not think this probable. Unless the men could have their families with them, they would prefer to leave them at their own homes.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

To a certain degree only. As sepoys are mostly agriculturists, and possess land, the families would usually prefer to remain at their homes.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Being in the vicinity of their homes, there would be a strong inducement for men to settle at regimental head-quarters. The men of the 11th Regiment Bengal Infantry are all agriculturists strongly attached to their home plots, but the younger and less interested members of a family would doubtless in time come to regard their head-quarters, to which their battalion periodically reverted, as their home, and would settle there. This would probably take some time to accomplish.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

Yes, if the regiment was localized.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I do not think many of the families of the men in this regiment would settle at the head-quarter station.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

As a rule, in Punjab regiments they would certainly not.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I do not consider it advisable to encourage the families of men of Punjab regiments to settle at any station. When not with their husbands, it is better that the women should be at their own villages, where they would be looked after by their relations.

Lieutenant-Colonel J. Hudson, Commandant 28th Punjab Native Infantry.

It is possible that some might do so, if permitted; but I am not so sure that there would be any advantage to the regiment in their doing so. I think the less a regiment is hampered with women and children and the relatives of the sepoys, the better for the regiment. They are veritable impedimenta, and a constant source of trouble and annoyance in the lines of a regiment. I would discourage anything of the kind, and would on no account permit any but non-commissioned officers, families to reside in the lines of a regiment.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Only in very few cases; as all but the lowest castes, and of whom none in my opinion should be taken into military employ, have some land or holding which they would be indisposed to give up, save under very exceptional circumstances. The men's families would readily come for a sojourn of some months, if accommodation were available; but I am not in favor of their doing so in large numbers. It leads to men under-feeding themselves; to their sleeping out of their lines; and to quarrels and ill-feeling. I do not at the same time deny that in some respects it is advantageous to the individual soldier to have his wife present, relieving him of much of the delay and labor of preparing his own meals, and cleaning up the cooking-place and utensils.

Lieutenant-Colonel F. M. Armstrong, 45th (Batray's Sikhs) Native Infantry.

No, not in any number. The men and their families are much attached to their own villages, where they all have many little interests. Many own and cultivate small plots of land which have perhaps been in their families for ages.

Major R. S. Robertson, 4th N. I., Officiating Assistant Adjutant-General, Allahabad Division.

I do not think it likely that they would settle there, even if it was in close proximity to their homes.

Major R. A. Wauchope, 14th Sikhs.

These of the battalion at the head-quarter station would most certainly be glad to do so.

Major A. C. W. Crookshank, 32nd Pioneers.

In some cases they would—Muzbis for instance. But I don't advise such local settlements being encouraged; it would be producing family regiments in its worst form. Ordinarily the best place for a Native soldier's family is at his village.

Captain H. D. Hutchinson, 40th Native Infantry.

No; certainly not. Most of them have a little land of their own, which they would never leave.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

A certain number of the pensioners of the regiment settle in cantonments and in its vicinity. The families of Goorkha regiments are with them.

Major A. Battiye, 2nd Goorkhas.

If there were class regiments (of only one battalion), and quartered permanently at stations in the provinces from which they were recruited, I believe that in course of time a large number of the low-caste men would be induced to bring their families into the lines, provided the married men's quarters were apart from the bachelor's lines. The high-caste men would probably not do so, as they are more conservative, and dislike all change of habits and customs. To encourage this settlement of families in the lines, the regiment on leaving the station should leave a depôt equal to a company, with a British officer, to look after the families, and no other regiment should be allowed to occupy the lines.

The greatest inducement would be the establishment of the line-boy system which obtains in Madras, and which I have explained in a separate letter. This system is much wanted in Goorkha regiments, to improve the physical and mental training of the boys.

With two battalions exchanging quarters, families would not settle in them.

Major F. F. Rowcroft, 4th Goorkhas.

Very doubtful, except in the case of Goorkha regiments.

Colonel E. Blair, 3rd N. I.

I think not.

Colonel H. Boisragon, Commandant 4th Sikhs.

Most certainly. The men's families (*i.e.*, only allowing wives and children) would settle at the head-quarters of Nos. 1 and 2 Battalions; those of No. 3 would of course be with their husbands at their own homes. The settlement of the men's families with their corps I have always encouraged, as it is beneficial both in a military and political point of view.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

No; almost all the men serving have more or less land at their homes, which no persuasion would induce them to relinquish, and which their families look after during their absence.

Very few of the men have their families with the regiment, and those women present are in many cases only a substitute for the lawful wife.

Lieutenant-Colonel B. E. Chambers, Commanding 6th Punjab Infantry.

Probably Goorkhas. I do not think it would prove the case with other classes, on this side of India at all events.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

Vide answer 7.

Major A. G. Ross, Commanding 1st Sikhs.

Only those who had land at the head-quarter station and also the landless city ones, whose men it would not be desirable to have. Other families would not settle at the station, because they could not have their land.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

They would not be likely to settle at the head-quarter station; for if they did not return to their native villages, they would settle down in quiet, cheap places, where there are no troops and few young men to seduce the women.

Colonel W. Osborn, Officiating Commandant 9th Madras N. I.

The families would not be likely to settle down any where than where their own relatives in the battalion are stationed.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Yes; but the head-quarters should be changed every ten years, or the regiment would become semi-local.

If the head-quarters were fixed, it would not be necessary to move the families when a regiment went on service or foreign service. The families would remain in the lines, and the men would return when their tour of duty was over.

At present when a regiment goes on service or foreign service, the transport of their families to and from their villages is paid by Government. This expense would be avoided by having fixed head-quarters. Again, when a regiment moves from one station to another, Government pays the train, or if by road a certain proportion of the cart hire. If there were fixed head-quarters, the transport charges would be only once in ten years.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

The families would not be likely to settle at the head-quarter station. The sepoys would always take their wives with them to cook their food, and the children must accompany the mothers.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

Probably some might, but not many. They would generally be with their battalion; and if that went on foreign service, they would either stay where the majority of the families elected to stay, or they would go to their own villages.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

In the Madras army the families now accompany the men. I think in the event of there being a head-quarter station for the regiment, that many families would settle at it; and pensioned men of the regiment with their families would also settle there.

Lieutenant-Colonel P. A. Carnegie, 39th Madras N. I.

Not unless they had relations there. Most of them would prefer going to their own villages.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Not in the Madras presidency. They would always be either in the lines of the battalion their husbands belonged to, or with their relatives in their native villages scattered throughout the presidency.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

The wives and families of the sepoys of this army remain to a much greater extent with their husbands, and look on the regiment much more as their home, than is the case in the Bengal army. This arrangement has been fostered and encouraged, and is looked on by many experienced officers as a good one, tending to render the soldiers more contented and more loyal, inasmuch as they thus give hostages for

their loyalty in the persons of their wives and children. In my judgment this system can be carried to too great an extent, and for the following reasons is liable to act prejudicially on the general physique of the sepoys:—

1st, the probability that friends and relatives of men living in the lines may not infrequently be enlisted though not up to the standard; and

2nd, the fact that the sepoys themselves must suffer in health and strength from the want of a sufficiency of food, if the greater portion of their pay is required to feed their families, and the relatives who quarter themselves on them. The extension of the regimental lines and bazaars which has been necessary in order to provide accommodation for these large families is another disadvantage of the arrangement. As long, therefore, as the present system in this respect is continued,—and it is one which could only be changed by a very slow and gradual process, as such a change would no doubt be looked on with much disfavor by many experienced officers,—I do not think the families of the men would be likely to settle at a permanent head-quarter station, to which their husbands would only return after considerable intervals.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Light Infantry.

No; I do not think families, as a rule, would be likely to settle at a head-quarter station; and I do not think it would be at all desirable that they should be encouraged to do so.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

Not in the Bombay army. Men will enlist and go anywhere; but they always look forward to the time when they may get their pensions and return to their homes. Those men who have married and formed ties out of their caste, and are thus unable to return to their villages, settle down in large towns, where they are lost in the crowd, and have a better chance of obtaining employment.

Colonel W. Bannerman, 4th Bombay Rifles.

To a very inconsiderable extent. Only a few of the families of the Mussulman sepoys, who as a rule in this presidency have no landed interest, and also the families of low-caste men (Purwaris), might probably settle at the head-quarter station; but none of the families of Mahratta and other Hindu castes, who have more or less hereditary landed interests, would do so.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

I think that not only the men's wives and children, but their more distant relations also, would collect at a head-quarter station, and that this would be found a further objection to the plan. There is already considerable difficulty in keeping down the number of those who gather round a regiment with a view to being supported by their sepoy relatives, the latter thereby suffering from not having sufficient means left to feed themselves properly.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

The families would generally be where the men are, but in case of service, or one battalion having to go any great distance off, the probabilities are that their families would locate themselves at head-quarters of second battalion.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

In many cases I think they would. A large number would, however, still cling to their own birth-places, as they may be interested in patrimony. But I believe that such establishment of the families at headquarters would be injurious to the men themselves, as I consider the habit of cutting themselves adrift from the monotony of their work during a period of furlough has the best possible effect on the men.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

A few might as at present, who attach themselves to the regiment and move with it wherever it goes; but the most part would prefer returning to their own country where their relatives reside, and where very many possess lands and houses.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Undoubtedly. The families of the Bombay sepoy, as a rule, are with the head-quarters of their regiments, which, in my opinion, is a very desirable arrangement.

Colonel J. Fairbrother, Commanding 23rd Bombay Native Infantry.

The families of Mahrattas, Purwaris, Beders, and Moochies would, and most probably in large numbers; but the families of Punjabis, Hindustan men, and Mahomedans of good families would not.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

Some would, but not as a rule.

9. State the district (mentioning the civil districts or collectorates in which the villages of the men are situated) from which you chiefly obtain your recruits.

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Sikhs and Punjabi Mahomedans from Rawal Pindi, Jhelum, Goojeranwalla, Lahore, Umritsar.
Dogras from Kangra and Sialkot.
Pathans from Eusafzai, Khuttuck district, and beyond the frontier.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Gwalior State—2 companies Thakurs.
Rohtuk, Hansi, Hissar, and Jhind—2 companies Jats.
Gwalior and Goorgaon—1 company Goojurs.
Kangra and Mundi—1 company Dogras.
Sirmoor and Gurhwal—1 company hillmen.
Oudh and Rohtuk—1 company Mahomedans.

Colonel T. Boisson, Commanding 30th Punjab Native Infantry.

Amritsar, Goordaspore, Goojerat Hoshiarpore, Jhelum, Jullundur, Kohat, Lahore, Peshawar, Rawal Pindi, Sialkot, trans-border.

Colonel E. Dandridge, Commanding 40th Native Infantry.

In the Punjab, from districts Jullundur, Goordaspore, and Hoshiarpore; in Oudh, from districts Fyzabad and Hurdoi; in Rohilkhund, from districts Shahjehanpore and adjoining; Futteghur, Arrah.

Colonel G. W. Fraser, Commanding 39th Native Infantry.

Cis-Satlaj Sikhs chiefly from Loodiana and Puthiala States; hillmen from Kumaon; Hindustanis (comprising Brahmins, Rajpoots, Jats, Aheers, inferior caste Hindus), Khutecks, Chumars, Mehters (the latter three called low-caste), from Lucknow, Sultanpore, Pertalghur, Moradabad, Allyghur, Rohtuk, Hissar; and Punjabi Mahomedans (very few) from Jhelum and Pindi.

Lieutenant-Colonel H. Worsley, 7th Bengal Native Infantry.

The bulk of the regiment (369 men) come from the civil divisions of Rai Bareli, Benares, and Allahabad, 62 men from Lucknow, 81 Arrah, and 63 Ferozepore. A detailed statement is annexed.

7TH NATIVE INFANTRY.

Detailed statement of districts from which the corps is recruited.

Province.	Number of men.	Civil division.	Remarks.
Oudh	242	140 Rai Bareli	A very large proportion of the Oudh men are young soldiers. (Hurdoi district only.)
		62 Lucknow	
		34 Fyzabad	
		6 Sitapur	
North-Western Provinces	298	108 Allahabad	Districts contiguous to Oudh.
		121 Benares	
		41 Agra	
		23 Meerut	
		5 Rohilkhund	
		1 Jhansi	

Detailed statement of districts from which the corps is recruited—concluded.

Province.	Number of men.		Civil division.	Remarks.
Punjab ...	3	3	Delhi and Rohtuk ...	Not Sikhs.
Punjab Proper ...	131	7	Trans-Sutlej ...	Sikhs.
		63	Ferozepore District ...	
		19	Ludhiana ...	
		6	Other Cis-Sutlej Districts ...	
		22	Puttiala State ...	
		11	Other Sikh States ...	
Lower Bengal ...	86	81	Arrah District ...	Chiefly old soldiers of 15 years' service.
		5	Other Districts ...	
Central Provinces ...	2	2	Saugor.	
Regimental ...	20	20	Regimental.	Band-boys, &c.
Total ...	779	779	.....	Present strength of regiment.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

The 11th Regiment may be described generally as being recruited from the Province of Oudh. The districts from which the men are chiefly obtained are Lucknow, Hurdoi, Shahjehanpur, Bareilly, Fyzabad, Gonda, Sultanpur, Bahraich, Rai Bareli, Nawabgunge, Unao, Cawnpore, Azimgurh, Allahabad, Mirzapur, Arrah, and some other neighbouring districts.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

Puttiala, Ferozepore, Loodiana; a few from Furreedkote, Jullundur, Nabha, Jhind and Umballa.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

This regiment is recruited from the whole of the Oudh districts, more especially perhaps Fyzabad and Sultanpore; a few men also come from Arrah and Bareilly.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Kangra, Jammu, Hoshiarpur, Gurdaspur, Sialkot, Goojerat, Jullundur, Lahore, Umritsur, Pindigheb, Kohat, Peshawar, Murdan, the Khyber, and Terah (Afridi).

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

(1) Jullundur, (2) Hoshiarpur, (3) Kangra, (4) Umritsur, (5) Lahore, (6) Gurdaspur, (7) Gujranwala, (8) Sialkot, (9) Jhelum, (10) Rawal Pindi, (11) Hazara, (12) Peshawar; also from beyond the trans-Indus frontier.

Lieutenant-Colonel J. Hudson, 28th Punjab Native Infantry.

The villages from which recruits for the 28th and most other Punjab Native infantry regiments are chiefly obtained are situated in the following districts:—

Peshawar Valley.	Lahore district.
Kohat district.	Ferozepore "
Jhelum "	Shahpore "
Rawal Pindi "	Umritsur "
Sialkot "	Goordaspore "
Gujrat "	Puttiala "
Gujranwala "	Kangra "
Poonch "	Hoshiarpur "
	Jullundur and Loodiana districts.

Lieutenant-Colonel G. C. Rowson, 35th Native Infantry.

Mainpuri,	N. W. Provinces.
Furruckabad	Do.
Etah	Do.
Sooltanpur,	Oudh.
Rai Bareli	Do.
Barabanki	Do.
Fyzabad	Do.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) Native Infantry.

Chiefly Sikhs from Lahore, Ferozepore, Gujranwala, Jullundur, and Umritsur; Dogras (1 company) from Kangra and Hoshiarpur; Punjabi Mahomedans (1 company) from Rawal Pindi and Jhelum districts.

Major R. S. Robertson, 4th N.I.,
Offz. Assistant Adjutant-General,
Allahabad Division.

The recruits of the 4th Native Infantry are obtained principally from Oudh; a certain number from Arrah and elsewhere.

Major R. A. Wauchop, 14th Sikhs.

Major A. C. W. Crookshank, 32nd Pioneers.

Captain H. D. Hutchinson, 40th Native Infantry.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Major F. F. Rowcroft, 4th Goorkhas.

Colonel R. Blair, 3rd Native Infantry.

Colonel H. Boisragon, Commandant 4th Sikhs.

Lieut.-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Lieut.-Colonel E. R. Chambers, Commanding 6th Punjab Infantry.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

Major A. G. Ross, Commanding 1st Sikh Infantry.

Ferozepore, Ludhiana, and Puttiala, but chiefly the latter.

Generally the districts round Lahore, *viz.*, Umritsur, Pathankote, Gurdaspur, Loodiana, Jullundur, Ferozepore, &c. The regiment being a class regiment composed of Muzbis, they are accepted wherever found.

About two-eighths come from Loodiana, Jullundur, Ferozepore, Gurdaspur, and Umritsur; and about six-eighths from Shahjehanpore, Furruckabad, Etawah, Hardoi, Bareilly, Sultanpore, Ghazipur, and Arrah.

All recruits for Goorkha regiment are obtained from Nepal. For districts, area of recruiting, and modes suggested, *vide* letter* No. 3A. (Confidential), dated 20th May, to the Adjutant-General in India; subject ^{Recruiting} Native Army.

The recruits of my regiment (the 4th Goorkhas) are obtained almost entirely from the independent State of Nepal, *not* from the valley of *Khatmandoo*, but from the *remote* outlying mountain provinces that border on the independent States of Sikkhim and Bhootan.

Lucknow, Nawabgunge, Sultanpore, Fyzabad, Gonda, Pertabghur, Unao, Sitapore; North-West Provinces, Cawnpore, Ghazipore, Sarun, Shahabad, Patna, and Gya. About 550 recruits from Oudh, and about 150 from other places.

As mine is a mixed regiment, I recruit from Cabul, Peshawar, Yuzafzai, Kohat, this frontier generally, Dogra, Manja and Malwa Sikhs, Punjabi Mahomedans, Purbyas (Hindus and Musalmans).

Dogras from Kangra, Hoshiarpore, and Gurdaspur.
Sikhs from Amritsar, Gurdaspur, Lahore, and Sialkot.
Punjabi Mahomedans from Rawal Pindi, Jhelum, and Sialkot.
Pathans from Teerah, Eusafzai, and Kohat.

In my regiment the three companies of Pathans are enlisted from amongst Khattaks and Bangashes in the Kohat District, Eusafzais in the Peshawar District, a few from the Pathan tribes cis-Indus in the Hazara District, and also from independent tribes beyond the border.

Two companies of Sikhs are obtained from the Lahore, Amritsar, and Jullundur districts, and a portion also from the cis-Sutlej States.

One company of Punjabi Mahomedans from the Rawal Pindi and Jhelum districts.

One company of Dogras from the Kangra district, and one company of Hindustanis from the Fyzabad, Gonda, and Rai Bareli districts in Oudh.

For Dogras, the districts of Kangra and Jammu (Kashmir).

For Pathans, Peshawar, Eusafzai, and Kohat.

For Punjabi Mahomedans, Rawal Pindi, Jhelum, Guzerat, Makhud, Cutch, and Hazara.

For Afridis, Teerah, Khyber and Kohat Passes.

For Goorkhas, Nepal.

For Sikhs, Amritsar, Lahore, Ludhiana, Ferozepore, and Jhelum.

Sikhs.

Malwa Sikhs, $\frac{1}{4}$ of Sikh company. { Umballa
Patiala territory
Ludhiana
Ferozepore
Nabha territory } Proportion of $\frac{1}{4}$ of Sikh companies, 4 in number.

Manjha, Doaba, and other up-country Sikhs, $\frac{3}{4}$ of Sikh companies. { Jullundur
Amritsar
Hoshiarpur
Gurdaspur
Lahore,
and a few from Sialkot
and Gujrat and Gujranwala. } Proportion of $\frac{3}{4}$ of Sikh companies, 4 in number.

Punjabi Musalmen.

Punjabi Musalman { Jullundur.
Amritsar.
Lahore.
Jhelum.
Rawal Pindi.
Jammu
(and a few from Hazara).
Shahpur.

Dogras.

Dogras ... { Kangra
Hoshiarpur

Hindustanis.

Hindustanis ... Oudh.

* *Vide* appendix XXXVIII.

Pathans.

Pathans ... { Yusufzai.
Khattak country.
Bangash ditto,
and a few Marwattis, Afridis, Tanaolis, and men
from upper Hazara; also a very few Kabulis.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Tinnevely, Madura, Trichinopoly, Tanjore, Salem, Arcot, Chingleput, Mysore, Nellore, Guntoor, Masulipatam, Rajahmundry, Vizagapatam, Ganjam.

Colonel W. Osborn, Officiating Commandant 9th M. N. I.

The Kistna and Godavery districts, North Arcot, and Madras.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

No particular district. The men belong to every district except the Nizam's territory. All the men belong to the Madras presidency south of Secunderabad, except 27 men, who are natives of the North-West.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Recruits are chiefly obtained from the Godavery, Kistna, Nellore, Tanjore, and Trichinopoly Districts.

Colonel W. A. Gibb, Commandant 25th Madras Native Infantry.

The men of my regiment have been chiefly recruited from the following collectorates:—Trichinopoly, Tanjore, North and South Arcot, and Masulipatam, in not very unequal proportions, but some men have come from all parts of the Madras presidency proper.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

Our regiment is a mixed one, but nearly all our recruits are obtained from the Telinga country, along the western shore of the Bay of Bengal, from Cuttack on the north to Masulipatam on the south. The civil districts in which the villages of the men are situated are the collectorates of Ganjam, Vizagapatam, the Kistna, and the Godavery.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Tinnevely, Trichinopoly, Tanjore, Chingleput, and North Arcot.

Major E. Faunce, Commanding 14th Madras Native Infantry.

North.—Vizagapatam, Godavery, Kistna ... } Civil districts.
Central.—North Arcot, Madras ... }

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

I reply to this question for the whole of the Bombay army by giving the accompanying return, which shows the territorial divisions from which the sepoys now in the Bombay army have been drawn:—

Return showing the distribution of the present strength of each regiment of Native infantry by countries.

Corps.	Within presidency limits.	FOREIGNERS.				Total strength.	Number wanting to complete.
		Hindustan.	Punjab.	Other districts.	Total.		
1st Regiment, Native Infantry ...	621	153	79	8	240	861	...
2nd " " ...	546	52	52	15	119	665	47
3rd " " ...	536	123	15	14	152	688	24
4th " " ...	590	95	4	1	100	690	22
5th " " ...	572	70	49	3	121	693	19
6th " " ...	599	63	6	12	101	700	12
7th " " ...	593	69	36	2	107	705	7
8th " " ...	567	28	91	5	124	691	21
9th " " ...	583	90	15	13	118	706	6
10th " " ...	619	38	23	24	85	704	8
11th " " ...	567	65	44	7	116	683	29
12th " " ...	523	70	47	21	138	671	41
13th " " ...	533	95	56	5	156	689	23
14th " " ...	545	57	55	55	157	712	...
15th " " ...	550	83	6	40	134	684	23
16th " " ...	575	43	34	5	57	662	50
17th " " ...	543	69	39	36	144	692	20
18th " " ...	515	65	34	10	109	624	33
19th " " ...	724	69	57	1	127	851	...
20th " " ...	546	137	20	3	160	706	6
21st " " ...	593	107	3	5	115	708	4
22nd " " ...	558	78	41	5	124	682	30
23rd " " ...	463	171	49	26	246	709	3
24th " " ...	604	60	29	14	103	707	5
25th " " ...	503	65	39	4	108	676	36
26th " " ...	573	68	22	6	96	667	43
27th " " ...	170	43	323	152	528	698	14
28th " " ...	579	83	21	3	112	691	21
29th " " ...	277	62	433	94	539	816	...
30th " " ...	177	267	191	78	476	653	59
Total ...	16,034	2,578	1,507	667	5,052	21,080	683

From this return it appears that three-fourths of the infantry soldiers of the army have been enlisted within the presidency limits, the greater proportion of this number being obtained either from the Concan* or the Deccan, of which the following are the civil districts from which most of the recruits come:—

Sawant Wari	...	} Concan.	Sattara	...	} Deccan.
Malwan	...		Kolapoor	...	
Ratnagiri	...		Meeruj	...	
Chiploon	...		Sholapoor	...	
Dapooli	...				
Alibagh	...				

From Khandeish, which formerly supplied a fair proportion of recruits; but a very limited number are now obtainable. Very few men join the army from Guzerat; and from Cutch and Kattywar none at all. Sind does not supply many good recruits, the people of that district being dirty and slovenly, and the local regiments naturally pick up the few good men who offer themselves for military service. Most of the recruits belong to the agricultural classes, and commanding officers appear to prefer those

Khandeish	...	Naseick.
	...	Malegaum.
	...	Doolis.
	...	Dharangbun.
Guzerat	...	Surat.
	...	Broach.

from the Deccan to men from any other part of the presidency, but they do not enlist so freely as the inhabitants of the Concan.

Brigadier-General A. B. Little,
Commandant 25th Bombay Na-
tive (Light) Infantry.

Of late years recruits for my regiment have been drawn from the Concan, Deccan, and Southern Mahratta Country principally, and a few from Khandeish and Guzerat.

Not being with my regiment, I am unable to give the names of the collectorates.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

District.	Collectorate.
Southern Concan	... { Ratnagiri.
	... { Sawant Wari.
Deccan	... { Poona.
	... { Satara.

Colonel W. Bannerman, 4th
Bombay Rifles.

Two-thirds of the recruits are obtained from the districts of the North and South Concan and the Southern Mahratta districts of Malwan, Ratnagiri, and Sawant Wari. The collectorates of Poona, Satara, Sholapore, and Ahmednuggur afford a good many of the recruits; but the supply of the country classes in these districts is very limited and uncertain, and most of the recruits obtained come from the large towns and the districts immediately around them. A few recruits are drawn from the districts of Khandeish. None, however, of the class of cultivators in these districts appear to find sufficient inducement to take service in the army. The districts of Guzerat, including the collectorates of Surat, Brouch, and Ahmedabad, hardly afford a single recruit.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native
Infantry.

Of the men now with the 9th Regiment, about 300 are from the Concan, chiefly from the collectorate of Ratnagiri and the neighbouring State of Sawant Wari; rather more than 100 from the Deccan, *i.e.*, the collectorates of Ahmednagar, Poona, and Satara; about 100 from Hindustan and the Punjab (16 men only from the latter province); about 60 men from Guzerat, chiefly from the Baroda State; 24 men from Malwa, *i.e.*, the neighbourhood of Mhow and Indore; 130 men were born with the regiment.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

Chiefly the Deccan, including collectorates of Ahmednuggur, Poona, Sholapore and Sattara; also the Concan, including Ratnagiri, Malwan, and Alibag collectorates. A certain number of recruits are obtained from the Punjab, Hindustan, and Madras. These are limited to 100.

Colonel R. Mallaby, Command-
ant 13th Bombay Native
Infantry.

The main body of my recruits have been drawn from the Concan (Ratnagiri and Sawant Wari districts), but for the last three years, I have obtained all I could from the Deccan (Ahmednuggur, Poona, and Sholapore districts). For some years I have not recruited from the Punjab or North-Western Provinces or Bengal, as I am beyond the strength of 100 foreigners allowed.

The recruiting districts for the Bombay army are virtually confined to Deccan and Concan. Khandeish and Guzerat produce very few recruits, and those of very inferior physique.

In my opinion the Deccan and Concan are being rapidly worked out, and do not supply the stamp of recruit now required for so many regiments.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

The Concan (Ratnagiri), Southern Mahratta Country (Sawant Wari), and Deccan (Poona and Nuggur).

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

The duties of the battalion, under my command being chiefly afloat, and distinct from those of other Native regiments, its ranks are chiefly filled with low-caste men from the Concan districts, comprising the collectorates of Colaba and Ratnagiri and the Native State of Sawant Wari; the 100 foreigners allowed being Musalmans from the province of Oudh.

* 9,302 from the Concan, 3,871 from the Deccan.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

Lieutenant-Colonel O. V. Tanner, Commanding 29th Bombay Native Infantry.

Guzerat, Khandeish, Deccan, Concan, Malwan, and the Southern Mahratta Country.

Beluchistan, Sind, and the Punjab; a few from Southern Afghanistan.

10. Would it be desirable to recruit your battalion from one particular area of country?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Lieutenant-Colonel L. H. Wilkema, 14th Sikhs.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Lieutenant-Colonel F. R. Norman, Commanding 24th Punjab Native Infantry.

Lieutenant-Colonel J. Hudson, Commanding 29th Punjab Native Infantry.

In the case of my own regiment, I consider recruiting should be confined to the Punjab proper, and in the case of class regiments, as far as possible to one particular area of country.

I think it would be a great advantage to recruit from a given area, and especially from a given clan within that area.

Yes; it would be so much easier to carry out the reserve scheme if regiments were recruited within certain areas.

Yes; if regiments are class; no, if they are mixed.

If it is to remain as at present a class company battalion, it will be seen from answer 9 that the area of recruiting ground of the battalion is pretty extensive, comprising a fair proportion of the Doab lying between Ganges and Jumna, Rohtuk and Hissar, Oudh, Rohilkund, Kumaon, the cis-Sutlej territories and Punjab. If the battalion were a class battalion, and the area sufficiently large to admit of the best districts being selected as recruiting grounds for the class required, it might be advisable; otherwise, as shown above, it would be impracticable.

Most decidedly. By localizing recruiting depôts, and by recruiting our regiments entirely from their own districts, we know to a nicety what regiments we *cannot* expect to be loyal under certain contingencies. The great principle to be observed is, that the loyalty of a mercenary soldier must never be tested by placing him in a position where he may have to act against his own people. The conduct of the Pathans in the last campaign aptly illustrates this point. It was unreasonable to expect loyalty from Pathans in the Afridi country; but composed as our army now is of mixed regiments, we had no alternative but to employ regiments indiscriminately, and trust to luck. Locally-raised regiments will eliminate this dangerous element of chance, and we shall in every case know whom *not* to employ.

As I am in favor of class regiments, I consider it very desirable that regiments should be recruited from certain particular areas of country.

Certainly; men prefer serving in regiments in which their companions are fellow countrymen.

This battalion is already almost entirely recruited from one area of country.

Yes; each regiment should have its allotted area. Hindostani regiments now help to drain the Punjab, as also do corps in Bombay, thus adding greatly to the great difficulty experienced by Punjab regiments in obtaining good recruits of authorized classes.

I do not think that any other system than that in force is desirable. The battalion is composed of four companies of Sikhs, two of Punjabi Muhammadans, one of Dogras, and one of Pathans.

The Sikhs, who are mostly from the Manjha, with a few from the Jullundur Doab, are enlisted in the Jullundur, Hoshiarpur, Umritsur, Lahore, Gurdaspur, Sialkot, and Gujranwala districts. The Punjabi Muhammadans from Sialkot, Jhelum, Rawal Pindi, and Hazara. The Dogras from the Kangra district. The Pathans from the Peshawar district and from beyond the frontier.

No; I think not. Now that we have a line of railway running through the Punjab, I can see no object in restricting recruiting to a certain tract of country.

As I am in favor of class companies in Punjab regiments, so I think the whole Punjab should be open as a recruiting ground.

As a matter of fact, few good Sikhs are obtained north of the Jhelum; few good Punjabi Muhammadans south of the Ravee; and no good Pathans, except Sagris, south or east of the Indus.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

I do not think it would be possible, judging from such experience as I have had in endeavouring to recruit from the original home of the 35th or Mainpuri regiment. The supply has always been far short of the demand. The facilities, however, for doing so would no doubt be much increased by alterations in the present organization, such as reserves and depôt battalions being established. I am of opinion that it would be desirable to recruit from one particular area of country.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) Native Infantry.

Yes; certainly from those already mentioned for the different classes, and from which this regiment has always drawn its recruits.

Major R. S. Robertson, 4th N. I., Officiating Assistant Adjutant-General, Allahabad Division.

It would, for the reasons given in answer No. 7; but the battalion should be stationed in that area.

Major R. A. Wanchope, 14th Sikhs.

I think so; it has always been the custom in this regiment.

Major A. C. W. Crookshank, 32nd Pioneers.

This is already done: *vide* answer to question 9.

Captain H. D. Hutchinson, 40th Native Infantry.

No.—No restriction is desirable.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Vide answer 9.

Major F. F. Rowcroft, 4th Goorkhas.

Most certainly, and only from the remote outlying mountain districts of Nepal, whence alone the very best and purest Goorkhas of the fighting class are procurable.

Colonel R. Blair, 3rd Native Infantry.

Yes, as practically done at present; but do not think the area should be confined to narrow limits.

Colonel H. Boisragon, Commandant 4th Sikhs.

If the reserve system is to be carried out, it must be a *sine quâ non* that battalions should be recruited from one particular area of country. But I would exclude none of the races of India, having regiments of all its various tribes (this I consider a political necessity, and to obviate any feeling of martyrdom). The first battalion always to be stationed as far as possible from its recruiting district. Hitherto I have considered the mixed regiment the most advisable and safest, as unlikely to have *so much combination for mischief*; but I am now doubtful whether time and constant attrition does not introduce a new element of danger, in causing all races and religions to have a more common feeling and interest with each other, and, therefore, always to be carefully avoided by us, the very contrary being our safeguard; and consequently I would now advocate class regiments. Assuredly, as a rule, they have more *esprit de corps* and *élan*.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Yes; restrict recruiting of all battalions to certain areas—Punjab battalions to Punjab and adjacent border; Hindustanis to Hindustan (including North-West and Oudh); Bombay regiments to certain defined areas *in their own presidency*; Madras to theirs. Do not endeavour to fuse the whole Native military element into one general amalgam.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

This could not be done without changing the constitution of the regiment. Mixed regiments would frequently have to extend over a much larger field for recruiting than class ones.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

As I am in favor of class-company regiments, I think not.

Major A. G. Ross, Commanding 1st Sikhs.

This depends on its being a class battalion or a class-company battalion.

If a class battalion, I would have a central head-quarters, and recruits from a wide area round it, as long as the area was conterminous with the race composing the battalion.

If a class-company battalion, as many areas would be necessary as there were companies of *varying classes*.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

It would not be desirable to restrict the area from which the battalion is recruited.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

Recruiting should be general in all the districts in the presidency to which the battalion belongs.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

No; I think not. Recruiting in every district is the best. To allow that any man belonged to any particular place, or that the men from any particular place were better or worse than others, would be a bad principle. Take men where you can get them; and then let their regiment be their own particular country till they die.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

I do not think it would be advisable. When a regiment is stationed in the south of India, it is convenient to recruit men from Tanjore and Trichinopoly. Regiments at Secunderabad and to the north find it more convenient to recruit from the Ganjam, Vizagapatam, Godavery, Kistna, and Nellore districts.

Colonel W. A. Gib, Commandant 25th Madras N. I.

Certainly not; the more they are mixed up the better.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

I think it would be desirable to recruit from one particular area of country. Practically it is now done to a great extent in the Madras army. The Tamil or southern men will seldom enlist in this battalion, because they would have few comrades of their own race. This battalion was first raised in 1800 in the Telinga country, and has, I suppose, always been a Telinga regiment, composed partly of Telingas, partly of Musalmans of the Telinga country.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

I think not. There is considerable difficulty in obtaining recruits now-a-days; so the larger the area the better.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Decidedly not. Regiments should continue, as heretofore, to be as much mixed as possible, no one class being allowed a preponderance. To recruit from one particular area means to assist combination. Were not all the old regular regiments of Bengal Native infantry that mutinied in 1857 recruited from one particular area?

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

The reply to query 9 shows that recruiting for the whole of the Bombay army is particularly confined to two districts of the presidency—the Concan and the Deccan. Bombay is the only military station in the former district; while Poona, Sattara, Sholapore, Kolhapore, Ahmednagar, Sirur, and Kirkee are the military stations in the Deccan proper. Belgaum for military purposes might be considered to be in the Deccan, though it belongs correctly to the Southern Mahratta Country. The above peculiarity renders the localizing of the regiments of the Bombay army in the districts in which they are recruited almost, if not entirely, impracticable, and also prevents a special district being assigned to each regiment for recruiting purposes.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Light Infantry.

No; I do not think it would be desirable to recruit from any one particular district or area of country; for this reason, that the greater the mixture of castes and races we have in regiments the better.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

No; I am in favor of mixed battalions. A judicious mixture of nationalities and creeds would reduce to a minimum, if not prevent altogether, any combination in corps for a nefarious purpose.

For the Bombay army, I advocate recruiting two-thirds of its strength within presidency limits and one-third foreigners. The Southern Mahratta Country, from which recruits for the Bombay army are chiefly obtained, having been subjugated a long time, the inhabitants are less martial and warlike, although more amenable to discipline, than the tribes further north, and who have not been so long under British rule. A combination in the individual of the good qualities of each would make a perfect soldier. The contact of one with the other in a regiment improves both, and conduces to a good result.

Colonel W. Bannerman, 4th Bombay Rifles.

No; and from the limited area from which recruits are to be had in this presidency it could not be done.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

In my opinion most certainly not. The present system of enlisting men of various castes, creeds, and countries works admirably. It was probably owing to this system that the Bombay army remained loyal and staunch in the mutiny, a general combination amongst the men being almost an impossibility.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

I think not. A mixed regiment has fewer prejudices. I would rather extend the recruiting ground, there being already difficulty in getting really good recruits. The Bombay army might be allowed to recruit in Rajputana and Malwa, as they garrison those districts.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

Most assuredly not; the wider expanse you obtain your men from, and the more mixed their classes and nationality, the better. I would not allow the broad distinction of home and foreign, but would restrict any one nationality to one-third the strength of the regiment.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

No; regiments should be composed of different classes, when, in the event of disaffection, unanimity or combination among them would be difficult.

Colonel A. Carnegie, 21st Bombay Native Infantry.

In this respect I consider no improvement could be made on the present system of recruiting.

Colonel J. Fairbrother, Commanding 22nd Bombay N. I.

No, certainly not; with the exception of Beluchis and perhaps Africans (Seedees), and Eurasians.

Lieut.-Col. O. V. Tanner, Commanding 23rd Bombay N. I.

Yes, north of the Indus, including Sind, Beluchistan, and the Punjab.

11. Do you consider the present system of increasing the army on the outbreak of a war sound and satisfactory as regards its results?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Decidedly not. In the hurry to augment and complete regiments to a war strength, many men of inferior class and physique are taken, their drill and instruction hurried over, and they are passed into the ranks often so imperfectly trained, that they seldom afterwards become smart and efficient soldiers. The battalion itself is crippled by the absence of a number of recruiting parties and the additional hands required at the depot for drilling the large bodies of recruits. Then the system of reduction on the termination of the war is a most pernicious one, as it gives rise to much discontent, and renders the service most unpopular.

Above all, our unpreparedness for war cannot fail to leave a bad impression on the Native mind.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I do not consider it sound or satisfactory. In a time of expected war or general trouble, men do not care to enlist, and sometimes the British officers exert themselves but little in the matter, on account of the extra work which, from reduction following so shortly, they look upon as labor in vain. Recruits enlisted for service augmentation are rarely fit to join the ranks before the campaign is concluded.

Colonel T. Boissragon, Commanding 30th Punjab Native Infantry.

Nothing could be more *unsound* and *unsatisfactory*; and I think this call for troops for service for this Afghan war, and when required to be sent to Malta, &c., has amply proved. The present system is a fruitless waste of public money.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I do not consider that the present system provides at all either for enabling a corps to take the field in sufficient strength or for feeding it when there.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

No, certainly not. The experience of the recent campaign tends to show that recruits enlisted on the outbreak of a war in order to keep their regiments up to a war footing are not ready to join the ranks sufficiently quickly to prevent many of the regiments dwindling down to mere skeleton battalions.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

No; most unsatisfactory in every way.

Augmentation by volunteering is detrimental to those corps which lose the volunteers. Augmentation by recruiting is worse than useless. Even if you thoroughly train the recruits, much time is lost, and in any case they are not *disciplined* soldiers, confident in themselves and their officers. The lesson of the Zulu war should teach us the danger of employing drilled but, undisciplined boys.

For feeding the losses in corps on active service we must trust to reserves, not recruits.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

I consider the present system of increasing the army on the outbreak of war most defective. In the first place, men hurriedly enlisted cannot possibly be so good as those deliberately and carefully selected. Then their training hampers a regiment on field service; they take up transport and consume provisions without any adequate return; whilst, if left at the old stations of their regiments, not only must good men be left behind to train them, but they cannot be expected to join their colors as effective soldiers much under 12 months.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

Certainly not, as will be seen by the next answer.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

No; the present system is not at all sound or satisfactory. So many regiments are recruiting on the same ground, that it is almost impossible to obtain the requisite number of recruits of a good stamp in the required time.

Lieutenant-Colonel E. G. Rogers, Commanding 20th Punjab Native Infantry.

Most decidedly not. The rush for recruits, and the anxiety of many officers to fill their ranks, no matter often at what cost to the future efficiency of their regiments, prevent proper selection. Hospitals are filled, the family pension list swelled; and yet commanding officers who adhere to a proper standard, and refuse the weakly or half-grown boy and the weed, are often blamed.

If — regiment can fill its ranks, why cannot every other?

Had each battalion a depôt from which to draw, none but seasoned good men need ever proceed on service. Its vacancies could at once be filled by trained men, able to undergo any hardship; and the depôts could re-enlist at comparative leisure. The system, moreover, is not attractive, and produces much discontent. All know that war augmentations are but temporary measures; that absorption will certainly follow, and that many recruits are likely on conclusion of peace to be discharged as unlikely to prove good soldiers.

The recruits also find that after having been hurriedly taught to load and fire, to form fours and take part in the few simple evolutions necessary for active service; and after having for months served as, and fancied themselves trained soldiers, they are on return to quarters remanded to recruit drill and musketry training, with all their fatigues and petty annoyances.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I think that it is the only system we can adopt without putting the country to very heavy expense. I am of opinion that if a battalion is never let to dwindle below 800 sepoy, an extra 200 men can be enlisted, and made serviceable in a short space of time. Owing, however, to the requirements of the musketry regulations, it might be a very long time before the new men became drilled soldiers in a musketry sense. But men are serviceable without being so highly trained.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

I consider the present system of increasing the army on the outbreak of a war eminently unsatisfactory in its results. In fact, there is no system.

During the late campaign in Afghanistan, when the order was received to augment battalions by recruiting 200 more sepoy, it became necessary to detach from regiments actually engaged in active operations in the field a staff of British and Native officers, non-commissioned officers, and sepoy for recruiting purposes; and these parties had to proceed several hundred miles down-country before they reached their recruiting grounds; and when they arrived there, they found themselves confronted by some 20 other parties similarly employed, all working against each other, and each with a single aim to the efficiency of its own particular regiment. In many instances the results were most unsatisfactory.

Lieutenant-Colonel G. C. Rowcroft, 38th Native Infantry.

No, certainly not. It throws a great and sudden strain upon the regimental machinery, and much labor upon the adjutant and his drill staff. Extra arms, accoutrements, clothing, and regimental necessaries have to be at once procured, while the accommodation in lines and bells-of-arms and quartermaster's store-room, calculated for the requirements of 712, is not sufficient for those of 912 men.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry.

Very unsatisfactory indeed in its results. Take the last occasion. Every regiment was suddenly ordered to add 200 men to its strength. Each sent recruiting parties all over the country to enlist a certain number of men in a given time. The country was overrun with these parties (not furnished always by the best men for the purpose, who could not be spared from regiments already proceeding to the front). Result—an inferior class of recruits was obtained, many of whom commanding officers would now gladly get rid of.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

Decidedly not. I do not consider it possible to add effective soldiers to the army with any beneficial result by enlisting recruits after the outbreak of war, as it takes a considerable time to turn a recruit into an efficient soldier in the Native army.

Major R. A. Wauchop, 14th Sikhs.

I do not. It is manifestly impossible to suddenly increase nearly every battalion in the service by a large number of men. In the first place there is the difficulty of obtaining so many men at a short notice when our country declares war; secondly, the training of them, as it is a mistake to send recruits to the front until they are trained, on account of their uselessness when there, and the expense incurred in feeding them; thirdly, the length of time—from six to twelve months—required to make them soldiers.

Major A. C. W. Crookshank, 32nd Mincers.

Certainly not. It is, I think, of all systems the most unwise, expensive, and unsatisfactory.—I mean the general augmentation of an army. To augment certain regiments ordered on service, or likely to be ordered, is rational and intelligible. But I never could understand regiments in remotely distant stations being compelled to take an increase of 200 men where they are not locally needed. Certainly regiments do not want the worry and trouble of arming, clothing, and training these men merely to absorb them in a few months. The loss in partly-worn clothing and partly-used arms and accoutrements is very great.

In the old army the augmentation was not necessary, as regiments had 1,000 sepoy and could afford to lose a large number before reaching the present fighting strength of regiments, and meanwhile recruiting was actively carried on at a time when the army was popular. This is no longer the case. We have now restricted recruiting to a few castes; and recruits being scarce, it takes a long time to beat them up; and what with the distance regiments are quartered from their recruiting areas, and the absence of recruiting staff at head-quarters, it is now impossible to obtain and drill recruits in time to be of any use.

Captain H. D. Hutchinson, 40th Native Infantry.

No, certainly not: see next answer.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

No; I consider the present arrangement most imperfect, as far as Goorkha regiments are concerned. Goorkhas take much longer than other classes of Natives in passing into the ranks, and therefore recruits obtained at the outbreak of a campaign would be useless to reinforce the ranks. As arrangements stand at present, if a Goorkha regiment sustained severe loss in the field, there is no means whatever of making good such losses.

Major A. Batty, 2nd Goorkhas.

As regards Goorkhas an impossible system; and must I think be unsound and unsatisfactory with regard to all other regiments, though I cannot speak of them from experience.

Major F. F. Rowcroft, 4th Goorkhas.

I consider the present system of increasing the army on the outbreak of war *most unsound and most unsatisfactory*, if not quite useless.

Colonel R. Blair, 3rd Native Infantry.

No, I do not; as recruits are not fit for duty until they have had about a year's training.

Colonel H. Boisragon, Commandant 4th Sikhs.

I am aware of *no* system on this point. Hitherto we have enlisted recruits on any sudden necessity of augmentation, and disbanded them when the emergency has passed over.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

No; there ought to be a reserve of trained soldiers.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Certainly not; it has not one single redeeming point.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I do not. After deducting sick and recruits from a regiment on the peace strength, it is manifestly too weak to be efficient for the commencement of a campaign.

A system of regiments with battalions would rectify this; for then the required number of battalions could at once be put into the field on a war strength, making up their number from their regiments.

Major R. B. P. Campbell, (Queen's Own) Corps of Guides.

Most certainly not. Owing to the immediate necessity of increasing strength of regiments, the demand for men was such, that striplings wanting in physique, and even elderly men, were entertained, neither of whom would have been admitted into the service in ordinary times.

Having been entertained by strange officers at fixed stations, there was no possibility of getting them trained without reducing the fighting strength of regiments, already weak enough, by sending back officers, non-commissioned officers, and sepoy to put them through a rough training, just sufficient to make them understand how to load and fire their rifles, and keep together in some sort of order. Then these men were marched to the front, and posted to their different companies, the officers and men of which they did not know nor had ever seen. Luckily, in the late campaign, there was time given to continue their training on joining their regiments; but it is not in every campaign that such a thing could be done.

Another blot on the system I consider was that, although regiments were ordered to raise 200 men, no increase was made to the non-commissioned ranks.

For cavalry, matters were still worse. No ready-made riders are now-a-days procurable; and men cannot be taught to ride in a day. So the recruits entertained were utterly useless. They could not ride, and there was no possibility of training them. There were no saddles, accoutrements, or horses ready for them; and the ordnance department made difficulties about issuing carbines.

Major A. G. Ross, Commanding 1st Sikhs.

Most unsound and most unsatisfactory as regards results.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I consider the present system of increasing the army after the outbreak of a war neither sound nor satisfactory as regards its results.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

On the outbreak of a war or any sudden emergency, it has been generally found necessary to increase strength of the regiment proceeding on service by calling for volunteers from other regiments. This, though it has answered well enough, cannot be considered a good system, inasmuch as the volunteers are strangers to the regiments which they join and the officers of the regiment to them, and it takes some time for officers and men to know each other; and unless the officer knows his men and the men their officer, there cannot exist that confidence between officers and men which is so essential at all times, and more so when on active service.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

Not at all satisfactory. Men so enlisted would be comparatively useless, and not to be depended on in action. It takes at least one year to make an efficient sepoy, and another year for him to acquire the required confidence in himself.

Colonel L. W. Buck, Commandant
20th Madras Native Infantry.

I do not consider it sound, as you obtain a large number of imperfectly-trained men and too young to undergo the hardship of a campaign. If a regiment consisted of four battalions, any one going on field service might obtain two hundred men from those not employed.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

It cannot be considered very satisfactory, but still it seems to have answered; and I hardly know what better could be substituted without great expense. I have gone more fully into this subject in my answer to question 16 and those immediately following.

Lieutenant-Colonel F. H. Tyrrell,
37th Madras Native Infantry.

No; it does well enough when we can take our own time and have nothing to fear from our enemy. But if we were opposed to a great military power, our army might be crippled for want of men, long before our new recruits were ready to fill up the gaps in the battalions.

I consider that it takes a year to turn a Native recruit from the South Indian races into a useful soldier.

Lieutenant-Colonel P. A. Carnegie,
39th Madras Native Infantry.

The present system is to call for volunteers from certain regiments; but I think it very unsatisfactory and unsound. It could only answer for a short time, and would then collapse.

Brigadier-General H. F. Brooks,
Adjutant-General, Bombay Army.

There is no recognized system for increasing the army on such occasions, beyond ordering the addition to regiments proceeding on service of a certain number of recruits. The regiments of this army which proceeded to Malta were filled up to their authorized strength by volunteers from other corps, no difficulty whatever being found in obtaining any number of men for the purpose. When orders were issued for augmenting the regiments* proceeding on service to Afghanistan by 200 sepoys each, the Bombay regiments were at once completed to full strength by volunteers from other corps, who came forward most readily and in much greater numbers than were required; and these regiments are at present of the following strength:—

1st Native Infantry	...	...	...	863 of all ranks.
19th Native Infantry	...	...	...	851 "
29th Native Infantry	...	...	...	820 "

It was not possible to augment the 30th Native Infantry in a similar way, owing to the peculiar organization of that regiment. The results of the above arrangements were satisfactory to the regiments who received trained soldiers instead of recruits; and inasmuch as this measure made those corps immediately efficient, and up to their augmented strength, it was advantageous to the service generally. It is doubtless very undesirable to render one regiment in some degree inefficient to complete another; but as long as there is no reserve from which to draw men to fill up regiments proceeding on service, the course which has hitherto been adopted would appear to be the only one which is possible.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

As far as my experience goes, I think the system of increasing the strength of regiments, which, I take it, means the army going on service on the outbreak of a war, to be sound; that is, by calling for volunteers from other regiments, and so sending regiments complete as to numbers of ready-made fighting men. But I will mention here that there are drawbacks to this method, some of which are that a commanding officer is not likely to let his good men volunteer, if he can help it; and again a commanding officer would be afraid of letting many, or indeed any, of his men leave his regiment, lest a deficiency in the strength of his corps might lessen his chance of being selected for service.

Colonel S. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment Bombay
Native Infantry.

No, I do not. I am not aware whether the number of men required for increasing regiments to a war footing was obtained on the outbreak of the late war; but when my regiment was called upon for volunteers, 150 men gave in their names. Learning, however, that no advantages in the shape of extra clothing, rations, or batta were assured to them, all but 13 withdrew their names.

This was the case with other corps.

Volunteering is always done in a hurry. Men arrive in batches from various regiments, and have to be armed and accoutred at the last moment. Theoretically, their accounts and documents should be all correct; but practically such is not the case. Hence much trouble and confusion.

If, however, a regiment were augmented from the third regiment of the brigade by the addition of two companies complete in British and Native officers and non-commissioned officers, all hurry and confusion would be avoided.

Colonel W. Bannerman, 4th Bombay
Rifles.

The present system of increasing the army on the outbreak of a war appears to work with fairly satisfactory results.

* 1st, 19th, and 29th Native Infantry.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

I have only once personally had any experience of this system. For the Malta expedition 77 volunteers joined the 9th. These all behaved admirably, and were animated by an excellent spirit. From what I saw on that occasion I should say that the system works satisfactorily.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

Not quite satisfactory; but without some reserve no other plan was available.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

It would be difficult to answer the question except at considerable length. It would depend upon whether the war had the sympathy of the Natives of India, and on the strength of the army it is intended to move out of the country.

The Native of Western India is essentially not a volunteer. He will go cheerfully wherever his regiment is required; and the regiment, as a whole, will volunteer, as my own regiment was anxious to do for Cyprus. But individually they don't care to exchange into another regiment, except for some private object.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

The present system is calling for volunteers from other regiments, when you obtain trained men who can take their place in the ranks at once. If you have two battalions to each regiment, this object is gained, with the additional one that the men still serve in their own regiments for which they generally entertain very strong feelings.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Yes; I can suggest no other likely to be more sound or satisfactory in its results.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

No, I do not, and for the following reasons. When volunteers are called for to serve with regiments taking the field, the best men will not leave their old regiment. As a rule, only discontented men, who expected promotion and did not get it, men reduced and otherwise dissatisfied with their old corps, will leave; and those who do go have no sympathy with their new corps. Neither are they generally very well received by the old hands of the corps to which they transfer their services.

Lieutenant-Colonel O. V. Tanner, Commanding 29th Bombay Native Infantry.

Decidedly not. From my regiment some of the best non-commissioned officers had to be sent on recruiting duty when the regiment was on service, and in want of its best non-commissioned officers and men.

12. What number of recruits were obtained in the recent augmentation; and what number were sufficiently trained to allow of their serving as effective soldiers with the regiment prior to the termination of the war?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Two hundred and seventy-seven recruits, the first man recruited after receipt of order directing augmentation being entertained on 14th October 1878.

Of these, 178 joined and served with the regiment prior to the termination of the war.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

On the 17th December 1878, when I received the order for augmentation, I had 103 recruits on the rolls, and was 24 wanting to complete. I completed to augmented strength by beginning of April. In May numbers went down considerably from invaliding; but at termination of the war I was again within 22 of full strength.

From 17th December 1878 to termination of war I enlisted 289 recruits. Of those 289, 147 had been instructed in target practice, and were sufficiently trained to serve with the regiment as effective soldiers.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

One hundred and seventy-nine recruits obtained, not one fit to join by the 26th May, date of signature of treaty.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I have not received the exact return, but 175 is about the number. They were not sufficiently trained for active service at the termination of the war.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

The order for the augmentation was issued in December 1878, and 217 recruits were enlisted. I had seen nearly 200 when passing through Meerut (where the depôt of the regiment is quartered) in April last when en route to join my regiment attached to the 3rd Infantry Brigade, late 2nd Division, Peshwar Valley Field Force. They appeared to be on the whole a very fair body of men, but were not anything like sufficiently trained to have been effective as soldiers prior to the termination of the campaign, none of them having been fully trained in the manual and firing exercises, with exception of one squad of some 30 men; and these had not then been put through the recruit's musketry course, or even fired blank ammunition. They had been enlisted, I believe, previous to the move of the regiment from Meerut, in November 1878, for Mooltan. All the rest had been enlisted since the order for the augmentation.

Lieutenant-Colonel H. Worsley,
7th Bengal Native Infantry.

Over two hundred; but none were sufficiently trained to take the field prior to the termination of the war.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

Being on leave, I write from memory. About 145 recruits were obtained. They travelled up on an average about 1,000 miles to join their regiment; and although they were frequently very useful in working at roads and entrenchments (for which their previous training as agriculturists particularly adapted them), only one squad of about 30 was passed into the ranks as sufficiently trained before the termination of the war.

Lieutenant-Colonel L. H.
Williams, 14th Sikhs.

Two hundred and sixty-four recruits were enlisted between the months of October 1878 and August 1879. Of these, 199 filled vacancies in the old establishment; 73 only being available for the augmentation ordered in October 1878. Of the 205 recruits enlisted before the termination of the war, only 40 were sufficiently trained to serve as effective soldiers; several of that number being old soldiers who had re-enlisted.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

One hundred and fifty-one recruits were obtained subsequent to the receipt of the order increasing the establishment of the regiment, but none were sufficiently trained to allow of their serving as efficient soldiers prior to the termination of the war.

Lieutenant-Colonel R.G. Rogers,
Commanding 20th P. N. I.

One-hundred and ninety-seven were obtained, and ninety-seven roughly trained for hill warfare.

Lieutenant-Colonel F. B. Norman,
Commanding 24th Punjab Native Infantry.

Orders for the augmentation were received on the 13th December 1878. Between this date and the date on which recruiting was stopped 245 men were enlisted for the augmentation; and to replace casualties of this number before the termination of the war, 46 men were performing all the duties of a soldier, and 61 were employed on day duties, such as guards and convoy work.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native Infantry.

About 200 recruits were obtained for the 28th Punjab Native Infantry in the recent augmentation; and of this number only some 8 or 10 men were sufficiently trained to allow of their serving as effective soldiers prior to the termination of the war. But these men had all served previously, and were partially trained in other regiments. As a matter of fact, the men who joined us were raw recruits, quite untrained, never having fired off a rifle in their lives, and were practically useless; for the facilities for training them under such circumstances were reduced to a minimum. Not only this, but the men themselves were in many cases vastly inferior in physique to those who would have been accepted at regimental head-quarters in ordinary times. I think I may fairly say the result was unsatisfactory.

Lieutenant-Colonel G. C. Rowcroft,
35th Native Infantry.

One hundred and seventy-five recruits were obtained (not including five or six who were discharged intermediately for various disqualifications), but none became effective soldiers before the war terminated.

Lieutenant-Colonel F. M. Armstrong,
Commanding 45th (Rattray's Sikhs) Native Infantry.

About 100 were entertained; some 30 only sufficiently trained to be of any use; and these but imperfectly trained, owing to want of time and opportunity.

Major R. A. Wauchope, 14th Sikhs.

Seventy-three in augmentation. None of these were sufficiently trained to serve as effective soldiers.

Major A. C. W. Crookshank,
32nd Pioneers.

We got the order on the 15th October at Quetta; and the only recruiting party the depôt officer could send started on the 1st November. We enlisted altogether 209 men up to the date on which recruiting was stopped; but as we had no instructional staff at the depôt, no training could be taken in hand till the regiment returned from the campaign, early in June last, since which time instruction has been actively carried on. Had we been able to send instructors to the depôt, I think 100 men would have been perfectly fit to join the regiment about March in time for the spring operations, had they been continued, and another 100 two or three months later.

Captain H. D. Hutchinson,
40th Native Infantry.

About 200 men were obtained. None were ready to join the ranks before the war was ended. Orders to augment were received in December 1878. Recruits began to come in in January 1879, but more in February and March; and peace was concluded in May.

Colonel R. Sale Hill, Commanding
1st Goorkhas (Light Infantry).

Forty-seven recruits were obtained altogether while the regiment was away on service, 13 of whom were recruits selected from the men sent by the Nepal Government. None of them were sufficiently trained to allow of their serving as effective soldiers with the regiment prior to the termination of the war.

Major A. Dattys, 2nd Goorkhas.

Eighty-eight recruits enlisted during last cold season, not one of whom was able to join the regiment before the termination of the war.

Major F. F. Rowcroft, 4th
Goorkhas.

We only succeeded in obtaining 76 recruits for our regiments; and of that number *not one* recruit was sufficiently trained to serve with the battalion (before the termination of the late war) as an effective soldier. Our recruiting party was at Goruckpore on the Nepal frontier. I may here state that the arrangement by which the Government of Nepal provided recruits for our Goorkha regiments *utterly failed* and broke down. Eighty per cent. were rejected by Goorkha regiments as *quite* unfit for enlistment.

Colonel R. Blair, 3rd Native
Infantry.

About 182 recruits were obtained in the recent augmentation. None sufficiently trained to allow of their serving as effective soldiers prior to the termination of the war.

Colonel H. Roisragon, Com-
mandant 4th Sikhs.

Between 12th November 1878 and 1st June 1879, 160 recruits were enlisted. Out of these, 100 were sufficiently trained to join the ranks.

Lieutenant-Colonel F. H.
Jenkins, Commanding Corps of
Guides.

Two hundred and thirty recruits were obtained for the infantry and 63 for the cavalry; 179 recruits were fit to serve with the infantry and 18 with the cavalry.

Lieutenant-Colonel J. J. Bos-
well, Commanding 2nd Sikhs.

Two hundred and ten were obtained, of which number only three (old soldiers) joined the ranks.

Lieutenant-Colonel B. R.
Chambers, Commanding 6th
Panjab Infantry.

The Government order for the increase of regiments up to 800 sepoy was received at Abbottabad on 26th November 1878, and recruiting parties were sent on the next day. On that date the regiment was ten men below the old strength; and on the 1st February 1879 the increased number had been completed up to 800 sepoy. Out of these enlistments, 6 joined the ranks on the 1st April, 38 on the 13th May, 45 on the 1st July, and 66 on the 28th July. Every effort was made to push the recruits on as fast as possible; and still, had the regiment been on service; the above will show that none of the augmented men could have reached head-quarters in time to have borne a part in the late campaign.

Major R. B. P. P. Campbell,
(Queen's Own) Corps of Guides.

Speaking from memory, as I have no returns to refer to here, about 150 recruits joined the Corps of Guides at Jellalabad under the above circumstances. They had to be put on duty; but care always had to be taken that some old soldiers were employed on the same duty to keep them straight. This, of course, gave more trouble than if they had been trained soldiers. Moreover, it was always a question one asked oneself, how much reliance could be placed on such men should an emergency arise? No opportunity was afforded them of proving their mettle.

About 35 recruits were entertained for the Guide Cavalry. A British officer had to be sent back from the front to purchase remounts.

Major A. G. Ross, Commanding
1st Sikhs.

Three hundred and twenty-four recruits were obtained to meet 11 short on 3rd October 1878.

153 casualties.

160 new augmentation by 1st May 1879.

199 were sufficiently trained by 1st June 1879. All these had fired 30 or 40 rounds of balled ammunition, and a great deal of blank. They knew sentry work, and skirmished well.

Colonel A. Jenkins, Command-
ant 2nd Madras Native Infantry.

My regiment was not augmented during the late war.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

I cannot say anything about the number of recruits obtained; but I do not think one efficient man could have been ready in the time.

Colonel L. W. Buck, Command-
ant 20th Madras Native Infantry.

My regiment was not augmented.

Colonel W. A. Gib, Command-
ant 25th Madras Native Infantry.

There was no augmentation to my regiment. Probably, if the weather was fine, most of the recruits would have joined the ranks in six months; but they usually take longer than that, say from nine to twelve months. It has been seen of late very plainly, I think, that a soldier is not made in a day.

Lieutenant-Colonel P. A. Car-
negy, 39th Madras Native Infy.

I cannot answer this question from my own knowledge; but from what I have heard it was a complete failure.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

As explained in the reply to the previous question, all the regiments of the Bombay army which were augmented, except the 30th Native Infantry, were completed by volunteers. This question therefore does not apply to them; but it may be noted that since that augmentation was authorized 1,618 recruits have been enlisted. It is not probable that any of these men are yet thoroughly efficient as trained soldiers. The peculiar* organization of the 30th Native Infantry, which has frequently been condemned as unsuitable, made it impracticable to complete that regiment by volunteers; and the number of recruits obtained by it since the

* Silledar infantry.

augmentation was ordered has been only 149, and consequently the regiment now musters only 793 of all ranks. Successive Commanders-in-Chief since the time that Lord Napier of Magdala commanded the Bombay army have urged the necessity for abolishing the silledar system in the 30th Native Infantry, which has been shown to be neither economical nor otherwise desirable; but these recommendations have not as yet been approved by the Government of India.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native Light Infantry.

My regiment was not engaged in the late war, and received no augmentation.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) 2nd Grenadier Regiment
Bombay Native Infantry.

My regiment was not one of those which was ordered to recruit up to war strength.

Colonel G. W. Hanson, Com-
manding 9th Bombay N. I.

The regiment was not augmented.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

When the 19th Bombay Native Infantry was ordered to augment for service, it obtained permission, by special sanction, to engage men from the police. Thirty-nine men joined from that force; but they, as well as the recruits afterwards enlisted (39 in number), were left behind at the depôt to be trained, and never joined. One hundred and eighty-one men to make up the full augmented strength volunteered and joined from other regiments.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Ninety-five recruits. Thirty-nine volunteers were given to regiments on service; the remainder were required to fill vacancies caused by the annual invaliding, and struck off on the 31st December 1873. Previous to the termination of the war none of these men were sufficiently trained to serve in the ranks.

Lieutenant-Colonel O. V. Tan-
ner, Commanding 29th B. N. I.

A very small number were obtained; and none were trained sufficiently to admit of their joining the regiment on service.

13. If your regiment 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 J. Doran, Commanding
27th Punjab Native Infantry.

From old age	...	...	...	0
Recruits	...	...	...	25
Effect of wounds	..	...	...	1

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native In-
fantry.

None on account of age; but I have noted 17 men who will be brought before next invaliding committee as unfit for further service from one cause or another. One hundred and twenty-six recruits are not sufficiently instructed to serve as effective soldiers.

Colonel T. Boisragon, Com-
manding 30th Punjab N. I.

About 7 to 10 trained soldiers, and about 83 untrained recruits.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

On account of age 50 of all ranks; average age 43½ years.
Recruits, including those obtained after the augmentation, 213.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

I do not consider that in this event any of the men of the regiment would be unfit for active service on account of age; though no doubt the hard duties that have devolved upon the regiment since it arrived at Ali Musjid at the end of March last are beginning to tell on them, the number of sick in hospital during the last month or six weeks having very considerably increased; and though most of these appear to be fever cases of a mild type, still the men become debilitated, and if the sickness continued, to increase during September and October, which are reckoned to be unhealthy months in the Khyber, especially at Ali Musjid, there is no certainty as to the effect it might have in making the regiment unfit for active service. No recruits have yet joined from the depôt; there numbers therefore are at present as before stated in reply to question 12. It has also yet to be seen what effect the winter may have on the regiment, even with extra precautions as to warm clothing, &c., the men being, as Hindustanis, so unaccustomed to a severe winter.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

About 50 old soldiers and 190 recruits.
In a few months, however, the recruits will be all drilled soldiers.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infa-
ntry.

The 11th Regiment is still serving in the Kuram Valley; and if hostilities were now resumed, I would not hesitate to take the entire regiment on service. There are four or five Native officers, the last of the old *regiments*, who might on account of age knock up under very severe

work; but the recruits are nearly all fit now to join the ranks as trained soldiers, although in a musketry sense they would still remain recruits, owing to the impossibility, for want of appliances, of putting them through the prescribed course.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

One hundred and seventy-one recruits have not yet been trained in the use of the rifle, and are therefore unfit.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

This is a difficult question to answer, as the health of the men depends a great deal on the time of year. I should say on an average that from 80 to 100 sick men and recruits would be left behind.

Lieut.-Col. R. G. Rogers, Commanding 20th Punjab N. I.

On account of age, &c., 15; as being recruits, 58.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

On account of age not more than four or five. Of course after ten months of hard work there are men who are not at present physically fit to undergo another campaign until they have had rest and change. I would take all recruits. They can take a great many duties, and thus lessen the work of the old soldiers, and, after two or three months' instruction, are quite able to act with old soldiers against any Asiatic enemy.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

As the 28th Punjab Native Infantry has been on active service in Afghanistan during the last ten months, and as all men unfit for active service have been from time to time weeded out, it is probable that not more than 15 to 20 men, exclusive of the recruits, would have to be rejected; but I am bound to say the recruits are now nearly trained.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

On account of age or physical incapacity, or as being on sick leave, about 20 of all ranks.

On account of being recruits, 192.

Lieut.-Col. F. M. Armstrong, Comdg. 45th (Rattray's Sikhs) N. I.

About 50 at present.

Major R. A. Wanchop, 14th Sikhs.

None on account of age; 171 on account of being recruits.

Major A. C. W. Crookshank, 32nd Pioneers.

The case of my regiment is exceptional, as it is now recovering from the severe sickness which struck it at Quetta and during the campaign. I should say, however, that out of 794 men now in the regiment about 80 or 90 are unfit for *immediate* active service. Of the recruits, all are sufficiently trained to take place with the regiment, though not perhaps to put in the first line. Napoleon's remark that training is rapidly acquired in war time is no less true now than then.

Captain H. D. Hutchinson, 40th Native Infantry.

About 35 per cent. There are over 200 recruits just at present.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

There are no men in the regiment who would be unfit on account of age (a special invaliding committee having assembled on 28th May 1879). Forty-eight recruits would be unfit for active service at present, not having been trained sufficiently, and not having gone through any musketry yet.

Major A. Batty, 2nd Goorkhas.

On account of age	...	...	...	15
Recruits	...	...	...	90

Total ... 105

Major F. F. Rowcroft, 4th Goorkhas.

There are about 50 men who, from age or other infirmities, would be unfit for active service (according to the opinion of the medical officers of the regiment). These men are nearly all to appear before the next medical committee this October. About 80 recruits are unfit for service, being as yet untrained.

Colonel R. Blair, 3rd N. I.

About 220, nearly all recruits.

Colonel H. Boisragon, Commandant 4th Sikhs.

There would remain about—

Weak men	...	...	...	24
Recruits	...	...	...	80

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

About 24 men would be too old to serve with the infantry and about 12 with the cavalry. In the infantry 54 recruits; in the cavalry 8 recruits.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

About 30 men, who have broken down since the regiment started on service. All the recruits present with the regiment are sufficiently trained, except in musketry.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

Major A. G. Ross, Commanding 1st Sikhs.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Colonel W. Osborn, Officiating Commandant 9th Madras N. I.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

In my regiment at present there are not more than 20 men of all ranks who are unfit for active service from being old and worn-out. There are 32 recruits who are not sufficiently advanced to join the ranks.

About eight on account of age and broken health; five prematurely broken down. Recruits 69.

N.B.—These figures are after deducting for depôt.

Eight kote lance naiks and a small proportion of Native officers and staff non-commissioned officers.

Thirty-six, I think, are physically unfit for active service, and 35 on account of being not sufficiently trained men amongst the recruits.

Twenty-two recruits, and, roughly speaking, 27 men of all ranks who are over 30 years' service.

Forty. Having 560 efficient privates caused me to make the first remark in answer 1. I have not a private of 30 years' service.

About 20 men would be unfit for service from disease and age. There are 58 recruits. The large number of recruits is owing to the difficulty of getting men at Banda, from which station the regiment has recently returned.

Perhaps four or five men might be considered unfit to go on active service, not more; for there are no old men in the regiment. About a dozen sick would be left behind and 36 recruits; but of these latter, one-half will join the ranks in a month or two. The regiment is up to its full strength of 600 privates.

Twenty men at the outside on account of age, and 30 recruits. We are, however, now 50 below our proper strength, so that in fact we should be 100 privates short if we were ordered on service.

For a Madras regiment, I believe the 39th is an exceptional one, as most of the men are young. On account of age, I should say not more than 25 or 30. We have 70 recruits this day. I append a numerical return showing service of all ranks in the regiment:—

Numerical return of all ranks of the 39th Madras Native Infantry, showing length of service.

Corps.	Under 5 years' service.	Five years and under 10 years.	Ten years and under 15 years.	Fifteen years and under 25 years.	Twenty-five years and upwards.	Total.	Remarks.
39th Madras Native Infantry.	231	157	114	156	46	704*	* This includes Native officers and non-commissioned officers.

Major E. Faunce, Commanding 14th Madras Native Infantry.

On account of age—

8 Native officers.

10 Havildars.

30 Privates.

On account of being recruits, 30 privates.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

In the Bombay army there are at present 17,140 men who are under 13 years' service, 2,315 who are between 13 and 20 years' service, 4,041 between 20 and 30 years' service, and 214 above the latter number of years' service. The large proportion of the sipoys of the army are therefore in the prime of life, and the number of men unfit for service on account of age should consequently be small. Since the beginning of this year 1,367 recruits have been enlisted; and probably a third of these would now be sufficiently advanced to proceed, if required, with their regiments on field service. The following figures show the number of men considered unfit for service and left at the depôts when the undermentioned regiments proceeded to Malta and Afghanistan:—

Malta	...	9th N. I.,	61
"	...	26th "	57
Afghanistan	...	29th "	12
"	...	30th "	19
"	...	1st "	32
"	...	19th "	21

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

Not being with my regiment, and not having time to correspond or to obtain *certain* information on points asked, I cannot answer this question; but I think I can with safety say that, to the best of my belief, no man is unfit for active service from age or being a recruit.

Colonel S. Edwards, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

On account of age, being over 45 years old ... 31
Recruits 58

Colonel W. Bannerman, 4th
Bombay Rifles.

About 100.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native In-
fantry.

About 25 recruits and some 25 men from physical unfitness; 5 or 6 only of these from age, the rest from diseases of a temporary nature; a large number of our recruits sufficiently advanced to be of use, would be taken on service.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

On account of age or sickness probably 40, *viz.*, those who would be invalided at the end of this year. Recruits from 20 to 30.

Colonel R. Mallaby, Command-
ant 13th Bombay Native Infa-
ntry.

None on account of age. There are probably 20 recruits I would not think justified in taking with me if ordered off at once; in a month's time I would take all.

There would be probably about 10 men subject to bronchial affections whom I would leave behind.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

At the present moment, if the regiment had again to proceed on service, it would be under its strength as follows:—

Recruits and depôt establishment	... 125
Considered unfit by medical officer	... 100
Now wanting, owing to recent casualties	... 65

Total ... 290 men.

Out of this number a few men might rejoin from the depôt.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

None at present at head-quarters unfit on account of age to take the field at the shortest notice; number of recruits unfit, being at drill, 55.

Colonel J. Fairbrother, Com-
manding 22nd Bombay N. I.

From old age and low physique about 50; recruits 127; total 177.

Lieutenant-Colonel O. V. Tan-
ner, Commanding 29th B. N. I.

With the exception of a few who have been knocked up by the recent campaign, and some recruits at the depôt, all are fit.

14. At what age do you consider that Native soldiers become unfitted for the hard work of a campaign?

Colonel J. Dcran, Command-
ing 27th Punjab Native Infantry.

Depends very much on habits, race, and constitution; but on an average I should say about 40 years.

Colonel H. S. Obbard, Com-
mandant 41st Bengal N. I.

As a rule at 40 years of age, or 20 years' service.

Colonel T. Boisragon, Command-
ing 30th Punjab Native Infantry.

The sepoy and non-commissioned officers at 40; the Native officers at 50 or thereabouts.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

At the ages of 43 to 45.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

As a rule between 40 and 45 years of age. But it depends upon the class of men. Sikhs and Punjabi Mahomedans I consider to be the hardiest. The higher caste Hindus also, being generally of a better physique, stands the vicissitudes of service longer and better than the inferior castes. The hillmen, such as in this regiment (Kumaonis), knock up after some years of continual service in the plains. The Goorkhas also, though a very hardy race, knock up readily if long exposed to the hot seasons in the plains. The Dogras too in Punjab regiments do not stand many years of continual service in the plains.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal N. I.

Forty years of age.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infa-
ntry.

As a general rule, I look upon 50 years as the age about which a Native becomes unfitted for the hard work of a campaign. I have known some Native officers perfectly efficient over that age, and I would not therefore make any hard-and-fast rule; but, except in the commissioned grade, I would not advocate the retention in the service of any Native over 45 years.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

As a general rule, between the ages of 40 and 45.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

About 45 years old, but many last a few years longer.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Fifteen years, allowing for the extremely heavy duties often imposed on them, and the hardships, &c., of occasional service.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

This depends upon the class of men. In the regiment under my command I consider that the Sikh and Punjabi Muhammadans are fit for work up to 40 or 45. The trans-frontier men, particularly if they have been much away from their homes, do not last so long. The Dogras from the Kangra hills rapidly fall off in the plains; and I do not think can stand the hardships of a campaign after 35 years of age, if so long.

Lieutenant-Colonel J. Hudson, Commanding 23rd Punjab Native Infantry.

I consider that Native soldiers are for the most part unfitted for the hard work of a campaign after 45 years of age—very many before that age; very few are fit after it.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Enlisted at from 18 to 20 years of age, a Native soldier, as a selected man to begin with, should be quite fit for the hard work of a campaign till from 35 to 40 years of age.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry.

Depends so very much on a man's constitution. A Sikh, as a rule, is well up to any work of a campaign at 40 or 45 years of age.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I should say about 38 years. There is, however, one reason which makes it hard to judge. The Native soldier when he reaches his thirteenth or fourteenth year of service, if unpromoted, prepares to qualify for his pension; and for this purpose simulates various ailments, in the hope, which is generally realized, of passing the medical board; these infirmities, it is believed, quickly disappearing as soon as this is accomplished. If the pension rules were altered, I firmly believe a greater number of men would be found physically fit for the service.

Major R. A. Wauchope, 14th Sikhs.

About 40, if he has always been a private.

Major A. C. W. Crookshank, 32nd Pioneers.

Before this campaign I would have said 45; but in Afghanistan the mutiny-medal men, who were that age and more, showed great endurance and immunity from disease. But then they were the *crème de la crème*.

As a general rule, 45 to 50 would be a safe limit. Enlist a man about 20 to 25; and if he is a good man, he will last from 20 to 25 years.

Captain H. D. Hutchinson, 40th Native Infantry.

With few exceptions, after 40 years of age; that is, supposing him to have enlisted at 18 or 20 years old, when he has served for 20 or 22 years.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Goorkhas appear to preserve all their *physical* powers up to a very advanced age. It was very remarkable that on the late expedition, in which the regiment had so much hard work and marching, old Native officers and havildars of more than 30 years' service seemed to get through the fatigues as well, if not better, than the younger men, as evidenced by the hospital entries. I consider, however, that no individual should be retained in the service after 32 years' service, when retirement should be made compulsory.

Major A. Batty, 2nd Goorkhas.

<i>Goorkhas.</i>		
If not promoted at	...	45
In the non-commissioned grade	...	50
Commissioned grades	...	55

Major F. F. Rowcroft, 4th Goorkhas.

As a general rule, at from 40 to 45 years of age.

Colonel R. Blair, 3rd N. I.

About 45 years of age.

Colonel H. Boisragon, Commandant 4th Sikhs.

Begin to become unfit for active service about 40. At 45 frequently commence hankering; in some cases scheming (ever difficult to detect and prove) for the invalids. At 50, as a rule, are utterly unfit for anything; in a great measure due to the present pension system, which should be altered more to the favor of Government.

Lieutenant-Colonel J. J. Eswell, Commanding 2nd Sikhs.

Thirty-five or thirty-six. Few are fit for it after fifteen years' service on the frontier, where duty is generally heavy and sickness great.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I consider five-and-thirty years of age as the limit for the rank and file to be efficient for hard work. Of course there will be frequent exceptions of men with strong constitutions lasting longer.

Major H. B. P. P. Campbell,
(Queen's Own) Corps of Guides.

This is a question very difficult to answer, as so much depends upon the constitution of individual men; but, as far as my experience goes, I think it is only the men with strong constitutions who are really fit for service in the ranks after 18 or 20 years' service.

Major A. G. Ross, Commanding
1st Sikhs.

If all the army served on, I have no idea. As it is, of those who remain on doing long service, I consider privates are unfitted after 15 years' service, non-commissioned officers usually after 20 years, buglers after 20 years, Native officers after 25 years, always excepting a proportion who upset all rules.

Colonel A. Jenkins, Commandant
2nd Madras Native Infantry.

I think that, as a rule, Native soldiers in the ranks cease to be equal to the hard work of a campaign at 45 years of age.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

At about 48 years of age and when they have completed about 30 years' service.

Colonel G. Hearn, Commanding
15th Madras N. I.

Forty as a rule.

Colonel L. W. Buck, Com-
mandant 20th Madras N. I.

At forty-five years of age. About five per cent. last well to fifty years of age.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

It varies greatly. With rare exceptions, I should say no *private* should be in the ranks after attaining the age of 45 years, which indicates a service of from 23 to 29 years, according to the age at which they enlisted.

Lieutenant-Colonel F. H. Tyr-
rell, 27th Madras Infantry.

At the age of from 35 to 40.

Lieutenant-Colonel P. A. Car-
negy, 39th Madras N. I.

As a rule between 35 and 40 years of age.

Major E. Farnes, Commanding
14th Madras Native Infantry.

It varies very much in individual men. As an average I should say 40 years of age.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

In my opinion this depends entirely—first, on the amount of care which is given to his selection when enlisted; second, on his having been required during his service to consume a sufficiency of food, and not permitted, either to hoard his money, or spend an undue proportion of it in the support of his family and relatives; and third, on the constitution of each individual. As a rule, however, I should say that a Native soldier of 40 years of age is past his prime.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

As a rule, I should say after 25 years' service; that is, at or about the age of 43 years.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment Bombay
Native Infantry.

This depends on the age at which a man enlists, also on the localities in which he has been quartered. The limit should be better 40 years of age. It would be better in my opinion that men who have served 15 years with the colors should be carefully examined each year; and if not thoroughly fit in every respect, they should be passed on to the first reserve.

On completion of 20 years' service, the transfer should be compulsory, except in the case of Native officers and non-commissioned officers, who should be allowed to serve longer if considered fit in every respect. I do not advocate having all young men in a corps; the retention of some steady and efficient old soldiers who have seen service would be most beneficial.

Colonel W. Bannerman, 4th
Bombay Rifles.

At from 40 to 45 years of age.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native In-
fantry.

Generally between 40 and 45. Last year we took some men to Malta of over 50 years. There was no hard work; but the climate of Cyprus was trying, and the old men did not suffer more than their younger comrades.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

This varies very much; on an average 25 years. But many knock up sooner; whilst others are good for active service from 7 to 10 years longer.

Colonel R. Mallaby, Com-
mandant 13th Bombay Native
Infantry.

Men recruited from the Concan at from 18 to 20 years; from the Deccan and Punjab and Hindustan at from 23 to 25 years.

Of course there are exceptions.

I should be glad not to recruit at all from the Concan; and the relief to the pension list would, I am sure, be great. But I am driven to it, as the Deccan cannot furnish all required by the Bombay army.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

The age varies very much; some men after 18 years becoming totally unfit. I should say 20 to 22 years as an average.

Colonel A. Carnegie, 21st Bombay Native Infantry.

From about 38 to 42 as privates and non-commissioned officers, and 50 as Native officers.

Colonel J. Fairbrother, Commanding 22nd Bombay N. I.

After about 20 years' service; say from 33 to 40 years of age. Some few last longer.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

Thirty-eight, taking 18 as the age of enlistment.

15. Do you consider that there is an advantage in your battalion being called on to serve beyond the limits of the presidency and on the frontier?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Yes; I consider every regiment should be prepared to serve everywhere in or out of India, and that foreign service beyond the sea improves the efficiency and mobility of a regiment in every respect, more especially in removing many caste-prejudices.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Decidedly. It enlightens the men, and makes them more serviceable and generally efficient, to have a tour of foreign service; but I am strongly opposed to any amalgamation of the Native armies of the three presidencies. I would have them, and those of the upper and lower parts of the Bengal presidency, kept entirely distinct, and recruited from their own parts of the country only. I consider this very important.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Every regiment should be called upon to serve on the frontier and beyond the limits of the presidency. They *expect this now*; but if not put into practice for years, it will be a question (as with the late Indian army and their Indus batta) whether they would *then* do so *willingly* and *without expecting additional* pecuniary benefits. To Sikhs and Pathans (and I daresay to the other classes as well) nothing becomes more irksome *after a time* than the humdrum routine of cantonments, and therefore change of stations, and with the chances of service on the frontier, duty on the frontier *for a time* would be advantageous and popular; but there should be a *strict* and *impartial tour* kept, and regiments be on a *regular roster* for these moves and for *active service*. *Nothing* causes more disappointment and a distaste for the service than this *absence* of a *roster* for active service, and to find *certain* regiments *selected* for service. The men naturally interpret it either to a want of confidence in their regiment, or that it is badly thought of at army head-quarters.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I do not consider it advisable that Frontier and North-Western Provinces and Punjab corps should be located in climates such as Burma and parts of Madras, where the staple food is rice. Regiments would soon become unserviceable from disease.

Frontier, Punjab, and North-Western Provinces corps should serve elsewhere indiscriminately.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Yes; I consider that the general service system, for which all regiments are now enlisted, much preferable to the old one of not being liable to serve beyond the limits of the presidency; and that the recent experience the regiment has gained by its service on the frontier has been most beneficial to all ranks in it.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Every regiment should be for general service; but in time of peace every regiment should, as a rule, be quartered in its own presidency.

I would even go further, and break up the Bengal army into two,—the army of the Punjab, and the army of Hindustan; the former being composed of the Sikh, Punjabi, Beluch, and Frontier corps, the latter of Hindustani regiments; the soldiers of each being raised exclusively from the region in which it is located.

By localizing the armies during peace, we shall prevent anything like a cosmopolitan feeling springing up throughout the army. A broad demarcation between the different armies and a separation of interests will prevent sympathy of feeling or unity of action, so that when one army fails, we may rely on the other three.

If there had been but one army in India in 1857, we should have had every sepoy in the country against us. The more we break up the unity of the army, the better.

Moreover, by so localizing the different armies, the adoption of a reserve system is facilitated, and service in the army rendered more popular.

There is no doubt about it. Hindustani corps in the Punjab or Sikh regiments in Bengal do not get as good recruits as those corps that happen to be quartered in their own province or region.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Certainly there is. I am averse to any system that would localize or restrict the sphere of a regiment's service. It would tend to lessen the *esprit de corps* and self-esteem of the men, and is a measure to be altogether deprecated. Subject to the condition of returning periodically to head-quarter stations, I would advocate the principle of general service in its most extended sense. That regiments of one presidency should, without special reasons, be sent to another presidency, merely in course of relief for instance, would not be an economical measure, and I presume is not contemplated; but I see no other objection to it.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

Yes; the men of the regiment under my command are always most eager to see service in foreign countries.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

No.—I think if battalions had to serve beyond their own presidency or on the frontier, it would make the service unpopular.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Yes, decidedly; minds are expanded, prejudices removed, knowledge of our power and resources increased, and greater fidelity ensured. Moreover, every regiment employed at a distance from its recruiting ground becomes more or less a security for the loyalty of the relatives, &c., of the men serving in its ranks.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

Yes, decidedly; provided that, when the exigencies of the service permit, liberal furlough is allowed.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

I see no very great advantage; but at the same time I can see no possible objection to a Punjab regiment serving out of the presidency or beyond the frontier. So long as the men have an opportunity of visiting their homes every three or four years, I believe they will be quite contented.

I have served in more than one expedition out of India in which Native troops have been employed, and the men were always cheerful and anxious in performing their duties as good soldiers.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

I would not consider it advisable to send the battalion to serve in the other presidencies; but I am of opinion that it would be most desirable to send it beyond the frontier limits of its own presidency and on the frontier. I consider the experiences so gained would be most valuable in a campaign.

Lieutenant-Colonel F. M. Armstrong, 45th (Rattray's Sikhs) Native Infantry.

On the frontier certainly, not in other presidencies; at least not too far from their own districts. Furlough and leave difficulties would crop up. The men can ill afford the cost of long railway journeys to and from their homes.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I think it very desirable that it should be called on to serve on the frontier, and in certain cases beyond the limits of the presidency. It is most important, to my mind, that Native soldiers should be made to understand that they must be prepared to go to any part of the world where their services are required; and the best way to do this is by moving them about. I think the encouragement of volunteering for active

service injudicious. A regiment should recognize its obligation to go anywhere when ordered. Moving regiments about tends also to strengthen discipline, and to instil habits of ready obedience, besides the effect on the Native mind caused by the extent and power of the British empire, of which they would have personal opportunities of judging.

Major R. A. Wauchope, 14th Sikhs.

Very much so. It prevents them becoming grubby and self-conceited; it gives them a knowledge of the world, and of the strength and power of the English nation.

Major A. C. W. Crookshank, 32nd Pioneers.

Most decidedly. I think a Native regiment should clearly understand that it has to serve the Empress in any part of Her Majesty's Eastern dominions in or out of India. My views regarding this are that regiments should ordinarily be kept in their own provinces, but periodically employed on foreign service for a limited number of years, either in another presidency or out of India. I deprecate the present

system of regiments having no homes and being scattered broadcast over the country, thus rubbing the edges off their caste and religious prejudices, and being familiarized with manners and races they formerly despised.* Madras, Bombay, Hindustani, and Punjab regiments should be worked in the four very distinct provinces of Madras, Bombay, Bengal, North-West, and Punjab; and a percentage from each province sent to serve on the frontier and in the other provinces for 3 or 4 years, returning to their own provinces for 12 or 15. To the want of such a policy is due much of the provincial narrowness and jealousy now existing.

Captain H. D. Hutchinson, 40th Native Infantry.

Yes, certainly. Such service must tend to enlarge the experience, enlighten the views, and blunt many of the groundless prejudices of the men.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Yes; for active service I consider that it does regiments much good, and that it exercises a beneficial effect on Goorkhas, who (without seeing a bit of the world) are naturally narrow-minded and vainglorious. It would, however, make the service extremely unpopular if Goorkha regiments were kept a long time on garrison service away from their families.

Major A. Batty, 2nd Goorkhas.

Goorkhas, being hillmen, suffer more than other men from serving in the hot weather in the plains during peace, and should not be called upon to do so, unless absolutely necessary. Moreover, there being so many family men amongst them with their families in the lines makes it unadvisable to remove them from their own stations, except for field

* To say nothing of its unpopularity, due to the expense the men are put to, and the impossibility of their taking furlough.

service. If Goorkha regiments had to take their regular tour of duty at other stations, our service would be less popular amongst them. All regiments of whatever class should be kept in the provinces from which they enlist much more than they are at present.

Major F. F. Bowcroft, 4th Goorkhas.

Certainly, most advantageous. I can speak for my own regiment that the corps universally would be delighted to go on any foreign service out of India and beyond seas. It does the men good in every way, opens out their ideas, &c.

Colonel E. Blair, 3rd Native Infantry.

Yes, for short periods.

Colonel H. Boisragon, Commandant 4th Sikhs.

I consider it advantageous for every corps to serve beyond the limits of its presidency and on the frontier, and even across the seas, whenever necessary. I also think it a great gain serving on this frontier; but I am likewise of opinion that it should be extended to the whole Native army, and not be confined, as at present, to the Punjab Frontier Force alone, which would also benefit by this change.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Yes; troops serving beyond the limits of the province they are enlisted in are much less likely to sympathize with any local disturbance which may occur in the locality where they may be stationed, and therefore may be better trusted. During 1857, neither Madras, Bombay, Goorkha, nor Punjab Frontier regiments sympathized with the mutinous Hindustani soldiery. I doubt the advisability however, except in time of war, of sending regiments long distances from their homes, unless Government grant free passages by steamer or rail to men going on or returning from leave.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I conclude this question refers to times of peace; and I don't think any advantage would be derived by the battalion in being sent beyond the limits of the presidency, except for active service.

This is a question I have not studied, and I do not feel I could give answers of any value to the questions set forth.

Major A. G. Ross, Commanding 1st Sikhs.

Certainly great advantage on frontier. As to presidency I cannot say. I allude to peace service. In war all regiments should go and serve and stay where wanted.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Occasional service beyond the limits of the presidency and on the frontier would be advantageous to the regiment.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

I consider it advantageous that the battalion should serve beyond the limits of the presidency and on the frontier, as it does the soldier good to mix with his brother soldiers in other parts, and it would tend to excite a spirit of emulation between the different regiments.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Most decidedly. I could instance my own regiment. We have been, within the last ten years, five years in the North-West and three years in Burma and the Andamans; the regiment has been much improved by serving in distant stations. At least four more Madras regiments should serve north.

It is a great mistake to suppose Madras sepoys cannot stand the climate.

Not only does it do the Madras sepoy much good to serve in the north, but it also does good in many ways to the Bengal sepoys. We are five years with the 3rd and 7th Bengal Cavalry. The men got on well, but they can never be friends. They will not intermarry, or even eat, with each other. Even the Muhammadans in their religious feasts will not amalgamate. There is no possibility of their ever joining together.

Colonel L. W. Buck, Commandant 30th Madras Native Infantry.

I consider it is an advantage that regiments should serve wherever they are ordered and be accustomed to different climates. I have not found that men suffered in health, if suitably clothed.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

Most certainly. I think there is an advantage, unless the men are thrown into debt by it, which need not be. The more a battalion is knocked about, and the more it sees of the world, the better. It cannot, however, be done to any great extent in peace times, on account of the expense it would be to Government. A Madras sepoy eats rice. That grain is, I believe, dearer on the north-western frontier, and the compensation would be heavy. A Bengal sepoy eats wheaten flour. That is expensive all over the Madras presidency and in Burma. So that a Bengal regiment in Burma would cost as much as a Madras one on the north-western frontier. I think, however, if flour was cheap where the Madras corps was stationed, that the limit of rice-money should be fixed at Rs. 3 a month; at all events, after they had had six months to become accustomed to it. The 25th took to it kindly enough at Malta; and I believe other Madras regiments stationed in Bengal do the same.

Lieutenant-Colonel F. H. Tyrrell,
87th Madras Infantry.

I do not know. Foreign service may be of some advantage in fostering a spirit of enterprize and adventure in the men.

Lieutenant-Colonel P. A. Carnegy, 30th Madras Native Infantry.

Certainly; a very good test of their loyalty to the Government, and also of *esprit de corps*. The more it is practised the better for the Madras army.

Major E. Faunce, Commanding
14th Madras Native Infantry.

Very great advantage; but men should not be kept more than three to three-and-a-half years at stations to which, on account of want of accommodation, or because of distance, they cannot take their families.

The more the men see of the world—and Bengal, the North-West, Burma, &c., are, it must be remembered, as much foreign countries to the Madrassi as a continental country is to us—the better for their qualities as soldiers. They become more enlightened, more intelligent, more self-reliant, are less bound up in caste, less ready to suspect in each innovation or change, however harmless, a covert attack on their caste, when they have mixed freely with people who, while having their own peculiarities, caste, and religious customs, think little of those the strangers bring amongst them. My meaning may be better expressed perhaps by my saying that it would be an education to them, as it is admitted the introduction of railway travelling has been to Natives of India generally. There would be no difficulty with the Madras sepoy. He has in the days long past, when the hold of caste, the dread of crossing the "black water," had a force that in these days we can hardly estimate, shown this by going readily to Java, China, the Straits of Malacca, Bourbon, Ceylon, Persia, Aden, Egypt, Burma. In India he served in the mutiny as far as Goruckpore to the north, Lucknow to the north-west. He formerly garrisoned Kolhapur, Sholapur, Carwar, &c., in Bombay. During the Abyssinian campaign gave garrisons to Kurrachee and Poona. During the recent campaign he served in the Pishin valley; gave garrisons to Calcutta, Mooltan, Rawal Pindi and has permanently to supply the garrisons of nine stations out of his presidency, besides the garrison of Burma. His proved readiness to serve without question wherever the Government may require, his long and unbroken loyalty to it, which alone it can amongst all its Native troops absolutely count on with confidence, should weigh heavily in the scale if the necessity of reductions arise.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

A tour of service from time to time on the frontier is, I think, absolutely necessary for the efficiency of each battalion; but service beyond the presidency should be limited to the above tour, and to occasions of active service in the field.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

If by the term *to serve* means field service, then undoubtedly advantages are to be gained. But if merely serving in the usual course of relief is meant, then I should say not; for by going out of the presidency the men would naturally be going further from their own homes, then by incurring extra expense in moving their families to and fro, and on their going on and returning from furlough; and I can see no advantages to be gained. But if for active service, it is in my opinion quite another thing.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Grenadier Reg., Bombay N. I.

Yes, decidedly.

Colonel W. Bannerman, 4th
Bombay Rifles.

Undoubtedly. Nothing conduces so much to discipline, and to create *esprit* and a soldier-like tone throughout a regiment, and which it never loses. A certain degree of superiority is always conceded to a regiment which has seen service on the frontier and in foreign lands by those regiments which have not been favored with a like good fortune.

Colonel G. W. Hanson, Commanding
9th Bombay Native
Infantry.

Unless under exceptional circumstances in peace times, regiments should, in my opinion, be stationed within the limits of their presidency. A change on this point would not be popular with the men, and I do not see any compensating advantages. In times of war they would of course be called upon to serve anywhere.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

Yes, if required for *active* service, but not otherwise. It would make recruiting more difficult if the men were ordinarily stationed at great distances from their homes.

Colonel R. Mallaby, Commandant
13th Bombay Native
Infantry.

I do. I think the more cosmopolitan a regiment feels itself the better, and the narrower its limits of service the more impressible they are to local influences.

If recruiting from the Concan was less frequent, or even discouraged, there would be less difficulty on the score of the moving of families, which amongst the Concanees are invariably larger than amongst the Deccanese.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Except in case of war or necessity, it would not be popular among the men. In the Bombay army they are very domestic, and, unlike the Punjab regiments, always have, if they can, their families living with them or near at hand. This they could not do if sent to a distance to serve for any lengthened period.

Colonel A. Carnegy, 21st
Bombay Native Infantry.

As the Marine Battalion is enlisted chiefly for service afloat, the question is scarcely applicable to it, though it has taken its full share in numerous campaigns. The men would always most willingly volunteer for active service either beyond the presidency limits or on the frontier;

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

but they would have a most decided objection to leave their own presidency as a permanency.

Yes, decidedly. I consider it of the utmost importance that regiments should be employed beyond presidency limits and on the frontier, and not only that but out of India—in China, Japan, Australia, Tasmania, Cape, Mauritius, Egypt, Syria, Cyprus, Malta; in fact, anywhere between the 40° of north and south latitudes. I have served with a Native regiment in China and Japan which touched at Point de Galle, Penang, Singapore, Hong-Kong, and the Mauritius on their way there and back, and the change worked in the men's minds by seeing so much of the world was astonishing. They were never tired talking of the power of England; for wherever they went they saw the British flag. I served with another Native regiment in Abyssinia, and there also I remarked how travelling opened the men's minds; but not in so very marked a degree as in the first-named instance.

Lieutenant-Colonel O. V. Tanner, Commanding 29th Bombay Native Infantry.

I think the army would be more popular, and consequently recruits would be more easily obtained, if regiments, *as a rule*, were to serve in their own province, including the area recruited from; but they should be sent wherever required for service or special reasons.

16. Do you consider the reserve system could be applied to the Native army?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Yes; I am of opinion that it is applicable to the Native army. But I am not prepared to say how the system should be elaborated or carried out.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

A reserve system might certainly be applied with advantage. A number of men take their discharge annually, thoroughly trained and in all ways fit for further service; and the number might be increased to such extent as necessary, to form a first reserve. Great numbers are also transferred to the invalid establishment annually who are quite fit for garrison duties. These might form a second reserve.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Yes, most satisfactorily; and it would make the service, just now very unpopular, *just the reverse*. Militia service in India would be the most popular (with the Sikhs especially); and this reserve scheme very nearly approaches it.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Yes, very easily; but for garrison duty only.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

With regiments composed of two or more battalions having a dépôt-centre, I do not think a system of reserves would be necessary; otherwise I do not see why it should not be applied.

Lieutenant-Colonel H. Worley, 7th Bengal Native Infantry.

Yes.—We can form reserves in two ways—

(a) by allowing men to enter it voluntarily;

(b) by compulsory transfer after a given number of years' service.

At present a large number of men for domestic reasons take their discharge between their third and ninth years of service. These men would probably enter the reserve if sufficient inducements were held out, and are those who from their comparative youth would form the flower of that reserve.

Lieutenant-Colonel P. Harris, Commanding 11th Bengal Native Infantry.

It appears to me that of recent years when dealing with the Native army Government has always ignored its one exceptional, yet most important and dangerous, characteristic. It has steadily overlooked the fact that the army of India is a mercenary army, not one of patriots. It is obvious, therefore, that measures which would be appropriate in respect to European armies are not always applicable to our Indian

army. I would lay it down as a general maxim that the reposal of power in any large body of Native mercenaries removed from the control of European officers is injudicious; and therefore the formation of Native reserves under the above condition is objectionable in principle, as well as dangerous in fact. Apart, however, from the above considerations, to establish reserves of men additional to the standing army in the manner proposed would, I apprehend, be a most expensive measure, and against the spirit and object of the committee's deliberations. No doubt the existence of some sort of reserve for garrison purposes at time of war is desirable; and I would propose, as an alternative measure, that our present large invalid establishment (men who have had personal experience of the benevolence and liberality of our Government) should be utilized for the purpose. I have been present on several occasions at the periodical payment of pensioners; and I have always been surprised at the healthy and strong appearance of a great number of them—men who had evidently quite recovered from the ailments for which they were invalided, but who still continue to enjoy handsome pensions from Government.

In the province from which my own regiment is recruited (Oudh) there is hardly a village in which a man or two of this description could not be found. It would be a simple matter to have

these men medically examined at their periodical receipt of pensions; and the police officer of each district could easily keep a roll of men found fit for garrison duty. I feel sure a sufficiency of Poorbeahs alone would be forthcoming to garrison the stations of Shahjehanpore, Bareilly, Lucknow, Moradabad, Cawnpore, Allahabad, Fyzabad, Benares, and Dinapore, releasing the regular troops at these stations for field service; whilst, as before explained,* the depôt battalion would maintain the others at their fighting strength of effective soldiers. When called out in time of war to garrison stations, the reserves should get the pay of the rank they held when invalided.

* See reply No. 7.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

Yes, with great advantage.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I consider it would be very difficult to apply the reserve system to the Native army. Native soldiers when not under the direct supervision of European officers soon become slack and useless.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Yes. With regiments of two battalions, as proposed, the depôt battalion would be a reserve for active service; and many of the pensioners, now so numerous and yearly becoming more so, are fit for garrison duties, and should form a second reserve, to garrison such posts as they might be required for.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I do not. That is, if it is meant that there should be a reserve on the English model. Good men would be withdrawn from regiments to the detriment of the regiments; and I do not think that any inducement Government could afford would create a reserve of sufficient strength to be of any practical good. It must be borne in mind that the sepoy is induced to remain in the service, not so much for the small extra pay he may get on becoming a non-commissioned officer, as for the greatly enhanced pension he is entitled to after three years' service as a non-commissioned officer.

Lieutenant-Colonel J. Hudson, 28th Punjab Native Infantry.

I see no reason why the reserve system should not be applied to the Native army. Indeed, I am inclined to think a short-service system with reserves would not be unpopular with Punjabis.

One of the defects of the present system of long service for pension is that it is open to abuse.

It is a notorious fact that men who have completed 15 years' service frequently feign illness; and by the use of Native drugs and medicines reduce themselves to such a condition of inefficiency and weakness, that invaliding boards have no option but to pass them to the pension establishment. A few months or even weeks' residence at their homes soon restores these men to health and strength; and pension paymasters are astonished at the stalwart appearance of those who periodically present themselves for pensions.

There can be no doubt but that vast numbers of men who are now drawing pensions are fully as fit for active service as many who are retained in the ranks.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Unquestionably. I am convinced it would be most popular, and would render available in time of need the services of many men of good character and comparatively easy circumstances, who under the present system are lost to the State. It would tend to bring many recruits to the ranks who now hold back, and retain many men whose family circumstances compel them to apply for discharge, but who would not willingly sever their connection with the service, could they pass the greater part of each year at their homes.

Lieut.-Col. F. M. Armstrong, Comdg. 45th (Battray's Sikhs) N. I.

Yes, if carefully constructed.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I do, under certain conditions. The first is, that it must be limited in number, as I consider a large reserve composed of young soldiers would be an element of danger to the State. But if the reserve is limited to the number of men actually required to bring up the battalions to a war strength, I see no reason why it should not be applied to the Native army. The second condition is, that certain inducements be offered to make men willing to join, without which the schema would fail to attract Natives. The most effectual inducement, in my opinion, would be the prospect of a small pension after a term of years. I would strongly advocate the system of pensions as one likely to draw men to the reserve, and keep them faithful when in it, by the powerful tie of self-interest. The present rules, however, require revision; and I would make the pension obtainable after a longer term of service, irrespective of physical fitness, and applicable to men who pass into the reserve as well as to those with the colors.

Major E. A. Wsachops, 14th Sikhs.

Without a reserve system I cannot see how the Native army could be reduced and kept efficient; and if proper times were selected for the training of the reserves, so as not to harass agriculturists, I think it would be most popular; and once established, with a larger and nearly as efficient an army, the saving would be great. One sepoy would be equal in price to four reserve men; and a battalion that in peace time has a strength of 400 sepoys and in war time 800 would under the reserve system be about Rs. 18,000 a year cheaper than at present, unless of course the reserves were called out. Each sepoy with the colors costs on an average Rs. 8 per mensem, and a reserve man Rs. 2. There would therefore be a saving of Rs. 9,600 a year in sepoys,

from a reduction in the number of Native officers about Rs. 7,000, and of non-commissioned officers and drummers about Rs. 5,500, making a total of Rs. 22,600; and if from that sum is taken Rs. 4,000 for one extra subaltern, there is left a gain of over Rs. 18,000 per annum in every Native battalion in the service.

Major A. C. W. Crookshank,
32nd Pioneers.

Only in a very limited sense, and as a purely voluntary arrangement. To carry out a system of short service and reserve (which is really only applicable to, and successful in, a conscript army) would, in my opinion, be highly impolitic on our part, and most unpopular with the army. The Native soldier generally takes up the army as a *certain* means of subsistence and as a provision for his old age, not merely to tide over a few years. A small class such as the Afridis and a few landowners come in for a time, but not the mass. What the superabundant population want is permanent employment, which is just what the reserve armies do not give.

I explain hereafter my views more fully. Suffice it here to say that it would be a very false policy to apply the reserve system to an alien and mercenary army in a country containing so many elements of disturbance as India has, and composed of castes so easily influenced by fanatical and religious movements. Reserves may answer in the far-off millennium of Indian self-government, but hardly now, except in a very limited sense, and possibly too much so to be of great practical good.

Captain H. D. Hutchinson, 40th
Native Infantry.

Yes, and with great advantage to the State.

Colonel R. Sale Hill, Com-
manding 1st Goorkhas (Light)
Infantry.

Yes; I consider that the reserve system could be applied with great benefit to Goorkha regiments, and that it is absolutely necessary to institute it in order to complete the sedentary battalion in time of war.

Major A. Battye, 2nd Goorkhas.

To a certain extent yes. Captain H. S. Anderson of the 12th Khelat-i-Ghilzie Regiment wrote a paper on this subject in the Journal of U. S. I. of India, No. 36 of April 1879, which is worthy of attention. Such a reserve would not, however, be required for Goorkha regiments, which should always be on a war footing, even if it was possible to raise one; but I do not think it is, as it is quite the exception when a man takes his discharge, nor would it be advisable to encourage a good man to do so, as the difficulties of recruiting are sufficiently great already. If a reserve of 200 men per regiment (other than Goorkhas) was found to answer, the system could easily be extended.

Major F. F. Rowcroft, 4th
Goorkhas.

No, certainly not, and for reasons too numerous to enter into in this document.

Colonel R. Blair, 3rd Native
Infantry.

I think so.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

Yes; I think the reserve system can well be applied to the Native army. I have already replied more in detail on this point in my answer to question No. 5.

Lieutenant-Colonel F. H. Jen-
kins, Commanding Corps of
Guides.

Yes; but I cannot suggest any method of creating a reserve without adding to expenditure.

Lieutenant Colonel J. J. Bos-
well, Commanding 2nd Sikhs.

Yes; but to enter fully into this important question would occupy too much space.

Lieutenant-Colonel B. R. Cham-
bers, Commanding 6th Punjab
Infantry.

I believe an effective reserve scheme could be worked out. I think it would be popular with the Native army; it would (to a great extent at all events) supplant the present invaliding system, which must be an enormously expensive one, and is a pernicious one.

Under existing rules no Native officer (short of 32 years' service), non-commissioned officer, or sepoy can voluntarily retire on a pension; but if a man can (after 15 years' service) pass an invaliding committee, and be declared physically unfit for the ordinary duties of a soldier, he gets a liberal pension in accordance to his rank. The present pension rules are expensive to Government, and unsatisfactory to regimental officers.

Major R. B. P. P. Campbell,
(Queen's Own) Corps of Guides.

I do not consider the reserve system which obtains in the British and Continental armies could possibly be applied to the Native army.

The expense would be enormous, and Government would not gain their object if they attempted to form a reserve separate from the regimental system.

A collection of Native soldiers, without company or regimental organization, would have no cohesion among themselves, and would be little better than an undisciplined mob, but far more dangerous. Natives require to feel themselves comfortably settled among comrades with whom they have been associated and officers whom they know before it is possible to get real good work out of them.

Supposing officers were appointed to command of districts and brigade depôts, as in England, fancy how long it would take to get up any feeling of sympathy between the scattered men and the officer in command, whom they would only see for a month every year? Then this officer goes on furlough, or is removed to another appointment; and the men are left again as unsettled as before.

Major A. G. Ross, Command-
ing 1st Sikhs.

I do not know much about it; but I think it could be easily supplied.

Colonel A. Jenkins, Commandant, 2nd Madras Native Infantry.

I do not consider the reserve system could be applied to the Native army with advantage to the State; for I think it might be detrimental to its welfare, throwing large numbers of trained men without employment loose on the country, away from their British officers and from their regiments.

Colonel W. Osborn, Officiating Commandant 9th Madras N. I.

I consider the reserve system quite inapplicable to the Native army.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

The reserve system could not answer in Madras; it would be an impossibility; the habits and feelings of the men are opposed to it.

There is seldom or never a case of a man wishing to leave the service; and any man who does so would never be willing to serve in the reserve.

Should a reserve be formed and men be got to enter it, they would never rally when called on. They may be got to receive the pay, but they would be absent when required. The few Bengalis we have would most probably leave the service and join the reserve.

The Madras sepoy is peculiar; he has not a thought outside the regiment; the regiment is his village; his family and friends are there. A Madrassée once a sepoy, never again takes to any trade, &c.; he has no thought other than serving for his pension. It is more difficult to make a soldier of him than of men of the North, but when he is once efficient he has no idea of ever leaving the service.

I am certain the reserve would not answer; it may flourish at first; but in times of need it will be a failure: not only will there have been a useless waste of a very large amount, but Government will find itself without the support it relied on in the reserve. The above refers to Madras, but in Bengal the reserve will most probably fill; but whether in time of trouble the reserve would be for or against Government is doubtful. Reserve men who have been for some time in their villages with their friends most probably would side with their friends. Sepoys out of hand, away from discipline, are not sepoy.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

I consider that it would be very difficult to induce men to serve for three or four years, and then return to their villages with a small monthly payment. The great inducement now to enlist is the certainty of a provision for life.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

This is a difficult question to answer; so many things are involved in it.

As a rule, in the Madras army a man enlists to earn a living. He joins it with the intention of staying in it as long as he can, and then retiring on his pension when his children are old enough to assist him.

To get such men as these to go on the reserve whilst they were fit for soldiering, the Government would have to deal liberally, and it might cost more than it was worth. A sepoy's pay is only just enough to live upon, so how could he live on the reserve on less? There are, however, a good many men in the Madras army who own small properties in land or houses. These might be induced to join the reserve, and perhaps, were such a thing initiated, it might draw some tolerably well-to-do people, who would not otherwise have joined the service.

Then the question arises would such people in the reserve, being called out, make good and efficient soldiers in the field? I think it is doubtful. They would do for garrison duty or in ferets, or such like; but for hard work the generality would be very much out of training. There would also be a difficulty in the matter of boots. They would be quite out of the habit of wearing them, and would probably get lame at first and unable to march; and an infantry soldier that cannot march is much worse than useless, for he has to be carried.

He could not well go without his boots, for his comrades would hurt him with theirs, and besides it is a different thing a man walking alone picking his steps to marching in the ranks, particularly at night. Men who had taken to sedentary habits would not be able to stand hard work, and would be like many of the reserve in the German army in the Franco-Prussian war, who died of fatigue in the first few marches.

How the system would succeed can only, I think, be ascertained by trial.

I think I should prefer allowing a certain number of men of good character to take their full pension after 25 years' service, to be called out to drill for 30 days once a year, and be liable to be called out for garrison duty in case of a war, until they had completed 32 years' service.

Lieutenant-Colonel F. H. Tyrrell, 57th Madras Native Infantry.

I doubt it; it is difficult to combine a reserve system with voluntary enlistment. Our own new reserve system in England has never had a fair trial yet. In Madras the sepoy is a man who takes to soldiering for his livelihood and expects to remain in the army all his life, or as long as he can. But I think the idea is worth a trial.

Lieut.-Col. P. A. Carnegie, 39th M. N. I.

Not the present system in force in England, but in a modified form.

Major E. France, Commanding 14th Madras Native Infantry.

I would strongly condemn any system of reserves and short service in the country. Moreover, holding, as I do, that the Native army of India is now on its lowest peace footing compatible with the security of the country—though Madras and Bombay were indented on, Bengal regiments had to be increased to 800 privates the other day, suppose other

local disturbance similar to the Rumpa one had arisen?—and that the duty exacted of the men, even allowing for all possible reduction thereof, is not only too heavy and over-taxes them, but is detrimental to their efficiency in preventing any effective instruction of them in sufficient numbers. I do not think the establishment of a reserve with a consequent reduction of the number of men under arms would be advisable. We have as it is skeleton companies and battalions; and commanding

officers who would wish to go beyond the beaten track of parade ground manœuvres, and really to instruct and make efficient their men for the field at any moment by drilling them in marching order, by combining instruction in digging, and properly using shelter trenches, pits, use of sand-bags, hedges, &c., with such drill, by instruction in fighting in extended order at a distance from parade grounds in marching order, by parade for rifle instruction outside the limits of a range, have to remember the heavy nature of the men's guard and orderly duties, and therefore sacrifice the really important things.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

There can be no doubt that the existence of a reserve from which men could be drawn to fill regiments up to their war strength would be highly advantageous; and if it could be established without reduction of the rank and file of the army, and if the danger referred to in the following question could be guarded against, I would advocate its formation; but both these difficulties seem almost insurmountable, and I consider the want of a reserve a lesser danger than those which would result from a reduction of the army, or the scattering over the whole face of the country in districts far remote from European supervision, a large number of drilled soldiers set free from the control of discipline, and the influence of their officers.

Brigadier-General A. B. Little,
Commandant 26th Bombay Native
(Light) Infantry.

I think a reserve system might be applied to the Native army, but I should have grave doubts if it would be a wise measure to carry it out to any extent; as one great object, I take it in forming the reserves in England and Continental nations in the present day is to make soldiers of the entire or greater portion of the male population, or at least give them to a certain extent the training of a soldier, and I doubt much if this would be a safe measure in India.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay Native
Infantry.

Yes, to a limited extent and in the manner given in the subsequent answers.

Colonel W. Bannerman, 4th
Bombay Rifles.

I do not consider the reserve system could be applied with beneficial results to the Native army of the Bombay presidency.

Colonel G. W. Hanson, Commanding
9th Bombay Native
Infantry.

The experiment would be a dangerous one, for the reason given in the next answer. I do not think a reserve advisable.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

I don't see why it should not, though not the same system as the British army.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

Certainly not. The success of the reserve system depends on the population having the same interests in our foreign policy, and being stirred by the same sympathies for the objects of a war.

In England, France and Germany, where the people enter with enthusiasm into it from a sense of its justice, expediency or other motives common to all, the reserve system will always answer.

But the case is very different with India. I hardly know of any object, governed as India is by aliens, which would of necessity invite the sympathies of all the nationalities, while I can readily conceive cases in which those sympathies would be antagonistic and enthusiasm impossible.

Besides, when the Native leaves his regiment for his home, except in the case of a few warlike tribes, they give up all idea of soldiering and settle down domestically, surrounding themselves with ties, which to the Native mind it is almost impossible to break even temporarily.

I would rather not accept such men, as they would do more harm than good in the regiment.

Col. Croagh, Comdg. 19th Bn. N. I.

I think it would be feasible and likewise popular.

Col. A. Carnegie, 21st Bn. N. I.

No; I consider there would be grave objections to it.

Colonel J. Fairbrother, Commanding
22nd Bombay N. I.

I believe not with advantage.

Lieutenant Colonel O. Y. Tanner,
Commanding 20th Bombay N. I.

Yes, with advantage.

17. Do you consider that in the case of popular disturbance men in the reserve would respond to the call to join their colors, or would they be likely to make common cause against Government?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

I have no reason for thinking they would not remain as staunch and loyal as the men already serving with the colors.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Ordinarily they would respond to the call; there might be cases in which they would not. I see no reason to suppose they would be more likely to rebel against the Government than men with the colors, the police, and all other Government employes. Greater loyalty could not be expected from them.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

This depends upon the constitution of the reserve, and whether Government makes sufficiently *liberal* yet *strict* rules. The reserve would take the tone of its regiment, and identify itself with it. If the *regiment* remained staunch, the reserve could be thoroughly depended upon to join the colors.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I am of opinion that the reserve men, who would chiefly be of mature age, would, as a rule, join their colors, a pension being highly prized.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

I consider that the fidelity or otherwise of the reserve men would depend in great measure on the cause and nature of the disturbance. If it arose from anything that personally affected themselves, their families, or the class to which they belonged, they would probably side against Government, but otherwise I think the prospect of losing their pensions would tend to keep them faithful.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

They would, I believe, respond to the call if the disturbance were in other provinces than their own.

Lieutenant-Colonel P. Harris, Commanding 11th N. I.

Fide answer 16.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

I feel sure that the majority would respond to the call to join their colors rather than fight against Government.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I think it would depend greatly what the popular agitation was about, and whether it affected the agricultural interests of the reserve men closely.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

They would, with but few exceptions, side with our Government. Failure to do so on the part of any man, without adequate cause, would of course involve forfeiture of pension to himself and all related to him.

Lieutenant-Colonel F. B. Norman, 24th Punjab Native Infantry.

I think they would either make common cause with the malecontents, or be so lukewarm as to be a cause of uneasiness. The great benefit of moving regiments to long distances from their homes is to weaken local ties. Men of the reserve would soon imbibe all the feelings of the civil inhabitants. I consider that it would be most hazardous to maintain a large body of men with a military organization, and who would not at all times be under the supervision of British officers.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

This is a somewhat difficult question to answer; but if the recent enactments of Government in regard to the possession of arms are carried out, it is difficult to understand what encouragement there would be for unarmed men, in the receipt of a retaining stipend from Government, to array themselves against that Government, which would of course be backed up by the armed battalions of its regular army; moreover, it is to be hoped that their previous service with the colors would have had the effect of implanting in the minds of the reserve men a certain amount of respect for law and order, in the due preservation of which even the smallest community is interested.

And after all I can see no reason why men serving in the reserve should be less loyal to the State than they were when serving with the colors. At all events, I think the contingency is sufficiently remote to warrant the trial of the reserve system.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

I think that the mass would at once rejoin their colors; the exceptions would be very few. I am of opinion it should be made a reward and privilege to be allowed to join the reserve, so that men of good character only should be passed into it, all others being discharged on completion of a certain term of service.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) Native Infantry.

We have the experience of the mutiny before us. The influences which affected men then exist now more or less with certain classes. A portion would undoubtedly join the colors; a portion would be equally certain to make common cause against us.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I think they would respond to the call to join their colors if the reserve was formed on the principles stated in answer 16.

Major R. A. Wauchope, 14th Sikhs.

If they had no means of obtaining arms, I think they would be unlikely to go against Government; but in a district where there were thousands of trained soldiers (our reserves), and the arms were kept in charge of guards of their own class, I think there would be a risk.

Major A. C. W. Crookshank,
32nd Pioneers.

I would say that, except in small numbers, they would not join their colors, but would rather make common cause against Government, particularly where the disturbance is due to caste or fanatical influence; and I would not blame them. For instance, in an Afridi coalition, on which side would the Afridi reservists stand? In a rising due to Wahabi preaching would the "faithful" reservists, living under its direct influence, leave their leaders to serve against their co-religionists; if so, their chance of paradise would be doubtful: or in a small way could we expect the Rumpa rioters to answer the call? But we need only go back to the mutiny days to find that the furlough men made common cause with the rebels rather than rejoin their regiments; and this was probably the case during the Fenian disturbances in Ireland.

Men serving in the ranks and under discipline may stand firm, and do good service against a cause with which they sympathize; but it is against human nature to expect a man in the reserve to come forth from his people in the cause which is his own and act against them merely from a sense of duty to an alien Government.

Captain H. D. Hutchinson,
40th Native Infantry.

A great deal would depend upon circumstances. Under a good system I have not the least doubt that they would join the colors. The inducements and pressure put upon him would have to be extraordinary before a reserve man would risk forfeiting his pension.

Colonel R. Sale Hill, Commanding
1st Goorkhas (Light Infantry).

I feel sure that a reserve would be popular amongst Goorkhas, and that in time of disturbance they could be thoroughly depended upon to be loyal to the State. They would hold all the hill stations securely, and, if in sufficient numbers, might be utilized in helping to garrison Amritsar, Lahore, &c., in case of necessity.

Major A. Battye, 2nd Goorkhas.

So much would depend on the cause of the disturbance. But the fact of their being enrolled soldiers, drawing pay and being subject to martial law, would operate greatly in favor of their siding with Government.

Major F. F. Rowcroft, 4th
Goorkhas.

In answer to question 17, I am of opinion that, if a reserve was instituted in the event of a popular disturbance, the majority of men in the reserve would be inclined to make common cause against Government. With reference to questions 18 to 25, they need no answer, as my opinion is adverse to the reserve system for the Native army.

Colonel R. Blair, 3rd N. I.

As a rule I think they would respond.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

In the case of a popular "disturbance," up to a certain point the "reserve" (extend this to all our Native troops and the people of India) would be faithful to us; beyond a certain pressure (especially if religion, or rather *caste*, was implicated), they would "make common cause against the Government," and in favor of their own nationality, and this is only natural.

The mutiny of 1857 proved this, "and history repeats itself," though there were many noble examples (though unnatural) in our favor. It must never be forgotten that we are aliens in this country, holding it mainly by conquest, and shall ever have to do so, and that they are simply "mercenaries" (here may be recalled the same system and the result in all history, ancient and modern). Even in Europe, excepting England, very surely will the Continental armies coerce their own people; how then can we rely on our Native troops with every instinct, and naturally with their own people, and against a foreign race as we are?

Lieutenant-Colonel F. H. Jen-
kins, Commanding Corps of
Guides.

Popular disturbances do not occur in India without warning. It is only in countries where the Government is tyrannical and oppressive, and where the people have personal wrongs for which they can get no redress, that sudden outbursts of rebellion occur. The reserve should be composed of steady old soldiers, and they should be called up from districts in which disturbances are likely to occur before they become compromised.

The English system of forming a reserve is not suitable to India. It would not be wise to send a lot of raw half-trained men adrift amongst the population. They could not live on their reserve pay if it was small, and many of them would re-enlist either in our regiments or with Native Princes. No one can be confident that such men would turn up in the event of war, and those that rejoined their regiments would be no use.

Lieutenant-Colonel J. J. Des-
well, Commanding 2nd Sikh In-
fantry.

I feel confident they might be depended on, and would not go against Government. Certain classes should not be taken in the reserve; Pathans from beyond the border, for instance: they cannot be depended on as a body.

Lieut.-Col. B. R. Chambers,
Comdg. 6th Punjab Infantry.

File answer 16.

Major R. B. P. P. Campbell,
(Queen's Own) Corps of Guides.

I believe the men would be so dissatisfied and unsettled, that no reliance whatever could be placed upon them during a popular disturbance. The evil and ambitious spirits among them would certainly join heart and soul with the people of the country.

Major A. G. Ross, Commanding
1st Sikh Infantry.

Depends on style of disturbance. If it be sufficiently national or religious, all foreigners will join their own people.

Colonel A. Jenkins, Commandant
2nd Madras Native Infantry.

In such large masses of men there would necessarily be many who, through poverty or employment, would come under the influence of designing men. They might fail to respond to the call to rejoin their colors. Well-to-do men, I think, would respond to the call for their services, if assured full compensation for loss of situations and employment forfeited by them when so responding to the call of Government.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

I do not think that the men would be likely to make common cause against the Government; but I think that in the event of a sudden call for the services of the reserve, the men could not be relied upon to respond to the call, inasmuch as the Native soldier when once removed, as he would be if in the reserve, from active military duty, would give up all ideas of soldiering, and cling only to the cultivation of his field, or whatever employment he was engaged in; and if suddenly called out for service, he would do all in his power to evade the orders so as to escape the hardships and privation of a campaign.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

As I do not believe it is possible to have a reliable reserve of mercenary troops, it is useless my replying to these questions.

Should the reserve in case of an outbreak join against Government, they could easily arm themselves with the weapons of the police which are distributed all over the country. In the late Rumpa disturbance, the rebels provided themselves with police carbines and ammunition. Is it desirable that there should be army and ammunitions loose all over the country? Would the number of arms at present in charge of the police amount to 25,000?

Colonel L. W. Buck, Commandant
20th Madras Native Infantry.

I consider that in a time of popular disturbance they would certainly join their own relations and friends against the Government.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

Impossible to say. The old style of sepoy would probably stick to his colors, but I think the new style of enlisting, having reference to a reserve, would bring a new style of men into the ranks; and if the cause of the popular disturbance affected himself as well as his neighbours, he would probably side with them. Once a man is enlisted, the more distinct he is kept from the population the better. This has always been the policy of Government, and that is why Native regiments used to be moved from stations every three years. In the mutiny, however, many pensioners joined in the defence of the Residency at Lucknow, and that is about the only precedent we have to go by.

Lieutenant-Colonel F. H. Tyrrell,
37th Madras Native Infantry.

The men in the reserve would follow the example of the army; if it remained faithful, they might be expected to join the colors.

Lieutenant-Colonel P. A. Carnegie,
39th Madras Native Infantry.

The Native army is composed of mercenary soldiers, and I think it would very much depend on how they were themselves affected by the grievance, and the inducements held out to them. I believe we are not greatly liked by the people of the country.

Major E. Faunce, Commanding
14th Madras Native Infantry.

Where there is room for distrust of men actually serving,—as must always be the case with mercenaries, especially when they are a conquered race serving their conquerors in their own country,—there must be room for more than doubt whether a large reserve of trained men with far smaller ties, without the restraints of discipline, living scattered amongst, and intimately connected by interests and family ties with, the civil population—indeed practically forming part of it—would not make common cause with their compatriots against an alien Government in any general rising of the people. Which side did the pensioners in Northern India take in 1857?

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

The experience gained from recent events in the Deccan shows the danger which might result from having a large number of trained soldiers, in the prime of life, scattered about the country. The leader of the late disturbances appears to have been able to enlist, in the Nizam's territory, many men partially trained to arms, the number apparently being only limited by the means at his disposal. There is no reason to suppose that these men were actuated by any special hostility to the British Government; they simply wanted employment, and military service was more congenial to them than any other work. It is true the cases are not altogether analogous, as these men were not our

subjects ; while we may fairly expect a certain amount of loyalty from those who have served in our army for some years, who are still receiving our pay, and who would forfeit material benefits by accepting service from any one else. At the same time too much should not be looked for from men situated, as these reserve men would be, in the midst of their relatives and fellow-countrymen, who would use every persuasion, and probably force, to prevent them rejoining their regiments. I think therefore the danger indicated in the latter portion of this question is real, and should be guarded against.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

In case of popular disturbance, I think *single* men of the reserve would join the colors, provided they had no great distance to go ; but I think family men would, with the country in an unsettled state, be afraid to leave their homes and families unprotected, and though with possibly every good inclination to do their duty to Government, yet they would find home ties too strong to permit them to do what they ought.

I do not think they (the reserve) would make common cause against the Government.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay
Native Infantry.

If the men are passed into the reserve at an early age, they would be likely to make common cause against Government in any executive popular disturbance, more especially the Mussulmans. For this reason I recommend that the first reserve should consist of police or local battalions, thus giving the men employment and keeping them under control until a more advanced age, when they might with greater safety pass into the second reserve.

There is also the danger of reserve men obtaining employment in the armies of Native States ; this should be guarded against.

Colonel W. Bannerman, 4th
Bombay Rifles.

I am of opinion that the men in the reserve (in receipt of *proportionate pay*) would fully understand they still were on the strength of the army, and in the case of popular disturbance would respond to the call, and would not fail to join their colors, and would not make common cause against Government.

Colonel G. W. Hanson, Commanding
9th Bombay Native Infantry.

In the event of popular disaffection in any part of the country, and more especially should the Native independent States be at any time inclined to give trouble, the reserve men would to a certainty be tampered with, and might probably be found acting against us were sufficient inducements offered to them.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

This would depend mainly on the terms on which they were drafted into the reserve.

It would not do to *compel* men to join the reserve, but those doing so voluntarily, with the understanding that their services were still available in case of emergency, would, I think, be forthcoming.

In case of political disturbance, some danger might be anticipated.

Colonel E. Mallaby, Commandant
13th Bombay Native Infantry.

In answering the question it would be well to consider the actual position of the Native. When he joins his regiment as recruit, he had hardly arrived at an age when he had formed domestic ties which have so powerful an influence on the Native mind ; except as far as caste bound him, he might be said to be free. When he leaves his regiment for civil life, he has already added the ties of family, multiplied by those that come to him through his wife, whose relations may probably be on the popular side. Is it to be wondered at if he shows a reluctance to join the side which would place him in opposition to them ; caste influence, patriotism (in his view), family ties are against him.

The fact of his being a trained man would make him more valuable to the disturbers of order, and they would proportionally bring their influence to bear on him to retain him.

He might not join actively against the Government, but he would at least be a dangerous ingredient to introduce at a critical time into a regiment. While with his regiment his surroundings would keep him straight ; but once he has felt himself a civilian and free from discipline, his then surroundings would draw him in an opposite direction.

Colonel Cragh, Commanding
19th Bombay Native Infantry.

That would depend very much on the nature of the disturbance ; but in the Bombay army the men are very loyally disposed, and it would be a very strong personal reason that would cause them to take part against Government, knowing besides, as they do, that their future support in the matter of pensions depends upon their allegiance.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

They might be induced to act either way according as they considered best for their immediate interests at the time. I consider the establishment throughout the country of a trained reserve would be fraught with much danger, and might at some unforeseen moment cost us far more than the present system, expensive though it may be considered.

I pass over questions 18, 19, 20, 21, 22, 23, 24 and 25 on account of my decided objection to the reserve system being introduced in India.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

I believe wherever they were most likely, or supposed they were most likely, to derive benefit quickly, there they would go; and if the chances were equal, they would make common cause against the Government, law, and order.

Lieut.-Col. O. V. Tanner, Commandant, 29th Bombay N. I.

Many would join their colors.

18. After what number of years' service would you pass a soldier into the reserve, and how long should he be called on to serve in the reserve before being able to claim pension? What should be the pay given while in the reserve?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

After 15 years' service pass into the reserve, and at end of 22 years be entitled to pension.

I am not prepared to say what pay should be given to men in the reserve.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I would enlist for six years' obligatory service instead of three as at present. After three years' service I would allow men to pass into the first reserve for another three, at the end of which time they should return to civil life. Similarly, I would allow men of more than three years' service, and up to twelve, to pass into the first reserve for three years.

I would not allow service in the reserve to count for pension, but would rather make it a means of retiring the army without pension.

I would not give any pay to men in the first reserve. I would give a gratuity which would answer better, and enable the men to establish themselves as cultivators, or in any line they might fancy, say 10 rupees for every year of service. The men of three years' service would get sufficient to purchase his bullocks, &c.; the men of twelve years' service would get enough to establish himself comfortably, and would be bought off the pension list.

For the second reserve I would give the present rates of invalid pay, so long as the men are able to take garrison duty. When they are no longer fit for any duty, and finally pensioned, I would reduce the pay by a fourth.

Colonel T. Boisrasson, Commanding 30th Punjab Native Infantry.

18, 19, 20, 21.—*Enlistment; reserve; pension.*

Enlistment for five years.

Re-engagement for such men as may be selected by commanding officers (who should have the sole responsibility) for a second five years, a third re-engagement (of selected men) for a third period of five years.

Men not re-engaged after first period of five years, on account of misconduct and bad character, to be paid up and discharged without gratuity.

Men not re-engaged on account of weakly constitution but good character to be discharged with gratuity of three months' pay.

Men not re-engaged after second period (*viz.*, ten years' service) on account of health (unless completely broken down, in which case they should be discharged with six months' gratuity) to be passed into the first reserve. After five years in first reserve, pension of fifteen years' service or re-engagement for three years for second reserve.

After fifteen years' service with the colors, pension to such men as have completely broken down; option to continue further service with colors of such able-bodied men who wish to serve, and whom it is desirable to keep or to pass into first reserve for a period of three years.

After three years in first reserve increased rate of pension to men unfit for any further service, or to be passed into the second reserve for two years, then another increased to rate of pension.

Duties of first reserve.—To take in turn, to the extent required by Government, one month's duty (in their own district commands) as "garrison orderlies," &c., and to furnish escorts, &c. To assemble at their district head-quarter centre for three months.

Drill and musketry.—The time for this to be chosen when there is neither sowing nor reaping going on.

Full pay at present rates, *viz.*, havildar 14, naik 12, and sepoy (15 years' service) 10 while on duties and drilling.

Rs. 4 a month to all non-commissioned ranks and sepoy alike while at their homes.

All men of first reserve to join regiment when ordered on service or for duties and drill within fifteen days of notice.

Any man failing to do so to be summarily dismissed and forfeit all claim to pension; strength of first reserve not to exceed 500 of all ranks.

Duties of second reserves.—To take in turn two months' garrison guard duty (forts, treasury, &c.) in the year.

Full pay of rank while employed, second rate (15 years) of pension while unemployed.

On the first reserve joining its regiment for service, the second reserve to furnish the escort and orderly duties of first reserve, and to be liable to be called together *en masse* for fort and garrison duties during the continuance of the war.

Penalties for not joining within fifteen days of notice the same as for the first reserve, summary dismissal and forfeiture of pension.

N.B.—The second reserve or "garrison invalid battalion" might be introduced at once at the next annual invaliding, and also the nucleus formed of the first reserve.

The rosters and returns of the reserve should be kept by the second-in-command of the regiment and one of the European company commanders as his adjutant of reserves, and a small additional salary should be allowed to these officers for these duties.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Compulsorily after 25 years' service, voluntarily after 18 years' service, on the usual pension. After 25 years' service a pensioner should be called upon to serve in the reserve if required for 8 years, during which period he should receive rupee one per mensem extra. After 18 years' service he should be liable for service for 15 years on the same terms.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

He should serve, I consider, twelve years before passing into the reserve, and be liable to serve thirteen more years in the latter, *i.e.*, a total service of twenty-five years before being entitled to claim a pension.

While in the reserve I would recommend his getting full pay when training, and Rs. 3 for the remainder of the year: the latter to be paid in a lump sum on joining for annual training.

Lieutenant-Colonel H. Worsley, 7th Bengal Native Infantry.

I would allow—

(a) men to pass into the reserve after 5 years' service;

(b) but would not compulsorily transfer men till after—

20 years' service, if non-commissioned officers,

15 years' service, if sepoys.

To men compulsorily transferred to the reserve, I would give the usual rates of pension after 25 years' total service.

To men of class (a) who voluntarily enter the reserve, I would give a reduced rate of pension—

Rs. 5 for non-commissioned officers,

Rs. 3 for sepoys,

after a total service of 25 years.

To men of class (b) I would give pay equal to what would be their pension.

Men of class (a) should only get pay when embodied or out for training. The inducement held out to them should be *prospective pensions*.

If you merely give pay and no pension, as in the British army, you have no real hold of the men. They are mercenaries, and will not return to the colors from motives of patriotism; you must bribe them with love of pice. A man will draw his monthly pay as long as short training is the only obligation imposed, but the chances are he will readily forego it if called on for active service, more especially towards the end of his time.

Of course compulsion can be used, but it is precisely at times of popular excitement that you least want to resort to compulsory measures. You must offer terms that will make it worth a man's while to come forward of his own accord. If you offer a pension on *completion* of reserve service, the man will probably argue to himself: "I have served all these years for a pension; if I do not go, I shall lose it, and all my service will go for nothing."

In short, pay men for fulfilling their engagements and for work done, not for liability to service on the chance of their responding.

Class.	Pay when embodied or out for training.	Pay at other times.	Pension after 25 years.
(a) Short service men.	Full pay of rank ...	<i>Nil</i>	Rs. Non-Commissioned Officers ... 5 Sepoys ... 3
(b) Long service men, compulsorily transferred.	Ditto	Same as pension rates, <i>viz.</i> — Non-Commissioned Officers ... 7 Sepoys ... 4	Rs. Non-Commissioned Officers ... 7 Sepoys ... 4

Lieutenant-Colonel P. Harris, Commanding 11th N. I.

Vide answer 16.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

I should recommend that the sepoy serve for five years with his regiment, during which time he would be thoroughly trained in all his

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

duties, and become acquainted with the discipline and regulations of the service; he should then serve for 15 years in the reserves for pension (see answer to question 19c); 2nd paragraph, see answer to question 19f.

Should a reserve be formed, I would give men the choice of joining it after 15 years' service, subject to the approval of Government. It would then soon become apparent whether the movement was popular or not.

A man might serve 10 years in the reserve and be given two-thirds the pension of a man who had served steadily with the colors. I would give the reserve men half the pay they were earning in the ranks.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

I would let every well-conducted soldier claim the pension of his rank, as a right, after fifteen years' service, on the condition that he engaged to serve in the 2nd reserve as long as considered fit for garrison duty in India.

While in the reserve, I think every man should receive Rs. 2 per mensem in addition to the pension of his rank, and when called on to serve, the full pay, &c., of his rank in lieu of all other claims for the time.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I would not let any man go to the reserve until he had completed six years' service, nor *after* he had completed twelve years; and would not give a pension until he had completed twenty-five years from date of enlistment.

It appears to me that there are two evils to be avoided: one, encouraging men to go into the reserve after too short a period with the colors; the other, that the rate of pay for the reserve should be brought into competition with the rates of pension. I think Rs. 2 per month should be the pay for the reserve when not required for training; when training, Rs. 7 per mensem, the good-conduct pay the man drew when he left the colors.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

If we start with the fact that it takes about two years to make an efficient soldier,—and I do not think it can be done in less; for although a recruit may be passed into the ranks in from six to twelve months, yet he has much to learn after that,—then I think we should retain his services with the colors for six years, or, say, enlist a man for eight years with the colors.

After that he might, if still fit for active service, be passed into the reserve; and I am inclined to think the reserve should be divided into two classes; for men of the 1st class reserve I would fix the pay at Rs. 2-8 to Rs. 3 per mensem.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

After 14 years with the colors, I would pass a sepoy into the reserve, not a non-commissioned officer. He should be recommended by his commanding officer as of good character and deserving of the privilege; otherwise, I would have him discharged. He should serve in the reserve for a further period of 9 years, and then be liable to discharge with a gratuity, if declared by a Medical Board physically unfit for garrison service. If fit, he should then pass into the second reserve for another five years, liable to be called out on cantonments becoming vacant through regiments proceeding on active service.

In the first reserve I would give pay at Rs. 3-8 per mensem; in the second at Rs. 2-8, with full pay of rank when embodied for training of service.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) Native Infantry.

At least 12 years' service before being passed to the reserve, and the same period in the reserve before entitled to claim pension.

Two rupees a month; Rs. 7 a month while called out for training. Same pay as regular army while employed on active service.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

After about eight years' service, and he should serve at least twelve years in the reserve before being able to claim pension. The pay in the reserve should be two rupees per mensem.

Major R. A. Wauchope, 14th Sikhs.

I would enlist a man as now for three years, after which he might enter the reserve—remain with the colors, or cut his name as he pleased—so long as there was a vacancy for him in the reserve of his regiment. He would be entitled to a pension after twenty years, irrespective of the time he has served with the colors or with the reserve.

The pay while in the reserve to be Rs. 2 per mensem.

Major A. C. W. Crookshank, 32nd Pioneers.

Presuming that the reserve is limited and voluntary, I would say—

(a) Five years' service with the colors: it takes that time to make a man understand the value of discipline and training.

(b) Two years in the reserve for one with the colors. A Native soldier should be allowed to claim a pension after 21 years' service. A

reservist would then have to serve for 5+32 (21—5×2), or 37 years for a pension; he would then be about 55, an age at which he should seek the shade of his village fig tree.

(c) Rs. 2 or Rs. 2-8 a month.

Captain H. D. Hutchinson, 40th Native Infantry.

After 17 years' service (with some exceptions: see answer 20). He should serve in the 1st reserve for five years, and in the 2nd reserve for five years. His pay while in the reserve should be the rate of pension as at present fixed, viz., Rs. 4 a month for a sepoy, and Rs. 7 for a non-commissioned officer, and in addition, for the month in each year in which he comes in for training, he should get his full pay, including good conduct pay.

NOTE.—If before five years' service a soldier becomes unfit for active service, he should be discharged forthwith and get nothing. Between five and eleven years' service, he should have three months' pay as a gratuity on discharge; above 11 years, if pronounced unfit for service in the reserve, six months' pay. This rule is very necessary to prevent malingering. After 17 years' service, that is, when he will be about 36 years old, he should go to the 1st reserve for five years, getting Rs. 4 a month (if a non-commissioned officer, Rs. 7) for 11 months, and his old full pay for the 12th, the month he is up for his training. If he fail to come in without producing a medical certificate from an European officer, strike him off the rolls at once. If he produce a medical certificate more than once, transfer him forthwith to the pension establishment on a reduced pension, viz., for a sepoy Rs. 3 a month, for a non-commissioned officer Rs. 5. These rules must be made to guard against malingering. Under this system, the 1st reserve would consist of men between 36 and 41 years of age. They should be liable to be called out for active service.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

I believe that the very natural zeal of regimental officers to have their regiments smart and efficient forces many men to the pension list whose services might be utilized to the State in the reserve, and the pension list thereby much reduced.

I consider therefore that men should be passed into the reserve, independently of their length of service and in lieu of being immediately pensioned, when recommended by the officer commanding, and after examination by, and with the sanction of, the annual committee.

The reserve would thus be composed of—

- (a) men presenting themselves for pension, but in opinion of committee still fit for further service, though not up to regimental mark;
- (b) men physically fit and remaining unpromoted for want of intelligence, &c., or who, unfit to remain with colors, are considered up to garrison duty;
- (c) men who, for family or other reasons, wish to go to reserve;
- (d) pension to be claimable by men in reserve on their combined active and reserve service;
- (e) maximum pension for reserve men after 32 years' service (should any individual be retained so long) to be a special pension and equal to the ordinary pension now given for men of 32 years' service with the colors, irrespective of the periods composing, such service being mainly in the reserve;
- (f) ordinary pension for reserve men to be calculated at the rate of two years in reserve counting as one with colors; pension claimable after 15 years' combined service at this rate to be the one now given;
- (g) pension for men between 15 and 32 years' service to be the one claimable after 15 years, together with a gratuity for each year in excess of 15;
- (h) pay of reserve men to be Rs. 5 to 2, according to class: during annual training reserve men to receive full line rates of pay.

Major A. Batty, 2nd Goorkhas.

Should serve 8 years with his regiment before passing into the reserve, and 24 years in the reserve before he could claim a pension of Rs. 3 a month. Should re-engage every 4 years if physically fit. After 12 years in first reserve and 6 years in second reserve, if physically unfit for even garrison duty, should be pensioned on Rs. 2 a month.

Pay in the reserve should be as recommended by Captain H. S. Anderson in his paper alluded to in answer 16, page 11, viz., at the rate of Rs. 2 a month. Rs. 6 to be paid on assembly for training, Rs. 6 on 1st day of 2nd month, and the balance of Rs. 12 on dismissal. An additional half mounting allowance of Rs. 2 annually should be given to each man who presented himself with his uniform in good order. An additional Rs. 2 a month during training of two months: total Rs. 30.

Major F. F. Rowcroft, 4th Goorkhas.

Vide answer 17.

Colonel R. Blair, 3rd Native Infantry.

Sepoys after twenty years' service; and they should be called on to serve in the reserve for five years before claiming pension; the pay should be Rs. 2 a month.

Colonel H. Boisragon, Commandant 4th Sikhs.

Twelve years' service before passing into the "reserve," in which he should serve eight years before being entitled to any pension.

Half the pay in the "reserve" of what he would get in the 1st or fighting line.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

I would put men of fifteen years' service and upwards into the two depot companies with a proper complement of Native officers and non-commissioned officers. I would then give the depot companies two years' furlough, at the end of which they should come up to their regiments for two months' training. If any of them then seemed to be past their work, they should be pensioned and struck off the reserve. The men who were fit for service should again have two years' furlough with two months' training at the end. In this way, when a man had got ten years' service in the reserve, that is, when he had got twenty-five years' service altogether, I would pension him on the full pay of the reserve, which should be for a sepoy six rupees a month. Promotion should be made in a regiment either from the service companies or from the reserve, according to the discretion of the commanding officer; the Native officers and non-commissioned officers of the reserve should receive two-thirds of their present pay, except when called up for training or for active service, when all ranks should receive full pay and good-conduct pay. When the reserve was called up for active service, the men, *i.e.*, privates, should take their places in the companies of the battalion from which they came; the Native officers and non-commissioned officers of the reserve should remain with the depot and assist in training recruits.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Compulsory after ten years' service, optional before that. He should serve five years in the reserve before first pension, which should be a graduated one up to twenty-one years' service.

	Rs.	A.	P.
After 15 years' service	1	0 0
16 " "	1	8 0
17 " "	2	0 0
18 " "	2	8 0
19 " "	3	0 0
20 " "	3	8 0
21 " "	4	0 0

While in the reserve, pay at rate of Rs. 2 per mensem for eleven months, and full pay for one month when under training.

Lieut.-Col. B. R. Chambers, Commanding 6th Punjab Infy.

Vide answer 16.

Major A. G. Ross, Commanding 1st Sikh Infantry.

I would pass him in after 12 years' service. But even then I would give commanding officers power to make exceptions, and keep on useful men willing to stay. I would raise compulsory service from 3 to 5 years, and after 5 years, any man wishing to go, I would pass into the reserve, which would thus consist of—

(a) "men leaving the colors voluntarily after 5 and before 12 years' service;"

(b) "men passed in after 12 years' service with colors."

For reserve pay, see answer 10.

Col. A. Jenkins, Comdt. 2nd M. N. I.

I do not think the reserve system applicable to the Native army.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

Having stated in answer to No. 16 that I do not consider the reserve system applicable to the Native army, I leave this question and the following questions, as far as No. 25 inclusive, unanswered.

Col. G. Hearn, Comdg. 15th M. N. I.

Vide answer 17.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

After five years' service, and after twenty years' service in the reserve, he should be entitled to claim pension.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

Twelve years in the ranks, and be liable to be called upon for ten years more.

Pay whilst in the reserve Rs. 3 a month. Pension at the end of 22 years Rs. 4-8.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Infantry.

After 5 years' service I would allow a soldier to pass into the first reserve, after seven years' service in that I would transfer him to the second reserve, and keep him in it as long as he was fit for garrison duty; keeping up a pension list like our present one, along with a reserve, would be a ruinous expense.

I consider it would be necessary to pay a man in the reserve three or perhaps four rupees per mensem. The pay should be issued when the man presents himself for training.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

After fifteen years' service, and he should serve another fifteen in the reserve before being able to claim pension.

My idea of a reserve in India for Native troops is not that the men should be dismissed to civil employ, and then called up for a few days'

training annually. I think they should form a second battalion, and should do garrison duty chiefly, and perhaps police work at fixed headquarters, but should remain embodied on smaller pay. For work of that kind they should receive Rs. 6 or 7 a month, no good conduct pay, and compensation for dearness of provisions at a lesser rate than men on active service. Many privates are now transferred to the pension establishment on Rs. 4 per mensem, who would do garrison duty and light work for many years longer, though unfit physically for active service. The State now gets nothing from these men, though it might do so.

Major E. Faunce, Commanding
14th Madras Native Infantry.

Pensioners quite sufficiently able-bodied for garrison duties cumber the pension list in large numbers. It is wonderful how decrepit, sickly, and useless men become as they get near the time at which they mean to leave the ranks, and how rapidly they pick up afterwards. Every regimental officer can vouch for this: Any well-considered measure for the reduction of the enormous pension list must commend itself to the Government. Cannot one be devised by which these pensioners should form a reserve? The period of service, 15 years, after which a pension is obtainable might well be raised to 21 years for men hereafter enlisted; but to reduce the pension would not do. Any such interference with the pecuniary interests of the Native army would be politically dangerous, though such danger might not be apparent at once. Unquestionably, it would only lie dormant till some favorable opportunity arose. In Madras till about 13 years ago there were "invalid battalions" permanently embodied, and Medical Boards were required to state whether men appearing before them were "unfit for any further service," "fit for garrison duty," or "fit for further service." In the first case they were pensioned; in the second they were transferred to one of the "invalid battalions" which had no fixed strength. There would be little practical difference if pensioners were made liable to be called out in case of any local disturbances, or for garrison duty in case of war. Annual Invaliding Boards might be required to state whether men whom they pronounce unfit for further active service are fit for garrison duty. Men that are so should be medically examined every two or three years, and be liable to be called out till pronounced medically unfit, or till they have completed 32 years from date of enlistment. They should receive the present ordinary rate of pension, except when embodied for annual training or for garrison duty, when they should receive full pay, rice, money, good conduct pay, &c., according to length of service, including that as pensioners, free quarters, which would be simply tents when embodied for training, the vacated lines of the regiment they replace when embodied for garrison duty in war. In the northern districts of Madras, in the immediate vicinity of where the Bumpa "rebellion" is still in progress, there are very large numbers of pensioners. A thousand fit to cope with such rebels might easily have been found if required; and if embodied at once on the first outbreak, not only would a large expenditure in moving troops have been saved, but what is of much higher importance in this country should have been saved, the injury it must cause the prestige of the British Government in the fact—freely commented on in every bazar—of a contemptible body of malcontents setting the Government of an Empire at defiance for weeks lengthening into months. No special organization or expense of any kind would, I think I could show, be required to carry out my suggestion, but details would render my reply too diffuse.

Brigadier-General H. F.
Brooke, Adjutant-General, Bom-
bay Army.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

Colonel S. Edwards, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment, Bom-
bay Native Infantry.

Colonel G. W. Hanson, Com-
manding 9th Regiment, Bombay
Native Infantry.

* After 15 years' service, and he should continue serving in it until he had completed the time now required for pension, i.e., 32 years' service from date of enlistment.

(a) After 25 years' service I would pass a man into the reserve, and I think he should be kept there for five years before he could claim pension.

(b) His present rate of pay.

All men on the completion of 15 years' service should be carefully examined, and if fit and willing to serve they should be allowed to remain with the colors from year to year till they have served 20 years, when a transfer to the reserve should be compulsory, except in the case of Native officers, who should be allowed to serve—jennadars to 24 years and subadars to 23 years—if considered fit.

For pensions see clause (a), and for pay see clause (b), of answer 19.

I leave questions 18 to 25 unanswered, as they refer to a reserve which I do not think applicable to the Native army.

* I reply to this and the seven following questions on the understanding that the formation of a reserve is considered necessary, notwithstanding the objections which will no doubt be urged against it by many officers.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

I would allow every man of good character, *who so wished*, to join the reserve after 12 years' service, or later; he should serve two years for every one as a reservist to entitle to pension.

First pension to be after 17 instead of 15 years, as at present.

Men who are every way fit, wishing to stay in reserve longer, could do so if required.

One-quarter of what the soldier was receiving when he left the regiment.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

In my opinion it is better to use a man up with the colors; but if a reserve is determined on, and it is necessary to have men in it, who have some stamina left, I would say 18 years with the colors and 7 years with the reserve.

The present date of pension.

Colonel Cresagh, Commanding
19th Bombay Native Infantry.

Twelve years, and in the reserve 16 years. Rs. 2 per mensem should be the pay, with full pay for the days of training.

Col. A. Carnegie, 21st Bo. N. I.

Fide answer 17.

Colonel J. Fairbrother, Commanding
22nd Bombay Native Infantry.

I am entirely opposed to the adoption of the reserve system for many reasons: first, I do not believe in short service as a good thing for the army; therefore, I am not in a position to answer this and the two following questions, 19 and 20, without, perhaps, prejudice.

Lieutenant-Colonel O. V. Tanner, 29th Bombay Native
Infantry.

After 15 years' service, and after 10 years more in the reserve he should be allowed to claim a pension, Rs. 5 per mensem.

19. (a) Do you think it would be an advantage to divide the reserve into two classes,—the first liable to be called out for active service, and the second for garrison service only, the first passing into the second?

(b) If you consider that the reserve should be divided into classes, what should be the pay of each class?

(c) How long should a man serve in the first reserve, and how long in the second reserve?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

(a) Yes; I consider a division into two classes might be made to work advantageously.

(b) I am not prepared to answer this.

(c) About five years in the first reserve, and from two to three years in the second reserve.

Colonel H. S. Obbard, Commandant
41st Bengal Native Infantry.

(a) I think it would be an advantage to divide the reserve into two classes, the first to be liable for active service, and the second for garrison service only. But I would keep them distinct, and not pass the first class into the second, unless from having been called up they passed in ordinary course from the first to the second. When a first class reserve man is called up, all his service should be allowed to count; and when the necessity for his service terminates, he should, if eligible, be allowed to pass into first reserve again for three years, receiving gratuity for three years, and as many as he may have been serving since called up.

(b) First reserve no pay but gratuity.

Second reserve, ordinary invalid pay while fit for garrison duty, and afterwards one-fourth less: see reply to question 18.

(c) First reserve three years, second reserve till no longer fit for garrison duties.

Colonel T. Boiaragon, Commanding
30th Punjab N. I.

Fide answer 18.

Colonel E. Dandridge, Commanding
40th Native Infantry.

I do not think a reserve man would be fit for active service. I would have therefore but one class, and that for garrison duty.

Colonel G. W. Fraser, Commandant
39th Native Infantry.

No; the simpler the system of reserves adopted the better. There should be only one class. In the event of war, the younger and more active men would naturally be selected to be sent to the front, the older and less fitted being kept for garrison duty.

Lieutenant-Colonel H. Worsley,
7th Bengal Native Infantry.

(a) Yes; as there are numbers of men fit for garrison service, but unfit for the hard work of a campaign.

(b) As regards pay, I would make no difference as to whether a man was in the first class or second class. They will have all been subject to the same liabilities. But I would pay them according as they were "short service men" or "long service men" (*vide* answer 18).

(c) After 20 years' total service to pass into the second reserve.

Lieutenant-Colonel P. Harris,
Commanding 11th N. I.

Vide answer 16.

Lieutenant-Colonel L. H. Williams,
Commanding 14th Sikhs.

(a) Yes, I think it would be a great advantage.

(b) The two classes receiving the same pay, namely, Rs. 2 per mensem while unemployed—pay and good conduct pay of a sepoy while employed for the annual training, or service. No increase of good conduct pay to be given after joining the reserve.

(c) After five years' service in the regiment I would suggest that those sepoys to be passed into the reserve should be medically examined; those deemed unfit should be discharged with a gratuity of three months' pay; those passed as fit should enter the 1st reserve in which they would be liable to be called out for active service. After ten years' service in the 1st reserve, they should again be medically examined; those found unfit should be either discharged with a gratuity of six months' pay, or the reserve pay of Rs. 2 per mensem as pension; those for whom there are no vacancies in the second reserve might be treated in a like manner, the remainder deemed fit for service and for whom vacancies exist should be passed in the second reserve, in which they should serve a further term of five years, being liable to be called out for garrison duty at the depôt of their regiment and in the province in which the regiment is localized. Having thus completed 20 years' service, a pension of Rs. 4 should be granted, and the sepoy discharged, whether fit or not for further service.

Lieutenant-Colonel R. J. Walker,
17th Native Infantry.

(a), (b) & (c) No, I would only have one class in the reserve. All pensioners could be warned that they would be liable to be called out for garrison duty in time of great emergency.

Lieutenant-Colonel R. G. Rogers,
Commanding 20th Punjab
Native Infantry.

(a) By the system suggested in answer 16 there would necessarily be two classes, the second battalion for active service, and the pensioners for garrison duties; the first of course passing into the second.

(b) First class pay and batta of rank.

Second class pension of rank and Rs. 2 per mensem with full pay and batta of rank during any time employed on garrison duties.

(c) In first class for 15 years at least.

In second class for as long as fit for garrison duties.

Lieutenant-Colonel F. B. Norman,
Commanding 24th Punjab
Native Infantry.

(a) If men came forward in sufficient numbers, it would be advisable to divide the reserve into classes as proposed.

(b) I don't think that there should be a difference in the pay; Government servants expect that their pay should increase with length of service, and it would make the reserve unpopular if the older men who would form the second class got less than the younger men of the first.

(c) I would place all men over 20 years' service in the second reserve; after 25 years the men of this reserve should be allowed to claim pension.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab
Native Infantry.

(a) I do certainly think it would be more advantageous to divide the reserve into two classes. I would allow men to serve six years in the first reserve, and after that, if still fit for garrison duty, they should pass to the second, in which they might remain till they attained the age of 45 or even 50 years.

The men of the first reserve should be liable to be called on to join their colors whenever Government deemed it necessary. These would bring the battalions up to war strength. These men should be called out for training annually.

(b) I think Rs. 3-8 to Rs. 4 per mensem should suffice for the men of the first reserve, and Rs. 2-8 to Rs. 3 per mensem for men of the second reserve. When called out for annual training, the men of the first reserve should receive full pay and passage by rail to and from their homes.

(c) I would fix these periods at first reserve six years, second reserve up to 45 or 50 years of age.

Lieutenant-Colonel G. C. Rowcroft,
35th Native Infantry.

(a) Yes, as stated before.

(b) { 1st class Ra. 3-8 p. m.
 { 2nd " " 2-8 "

(c) Nine years in the first, and five years in the second.

Lieutenant-Colonel F. M. Armstrong,
Commanding 45th (Rat-
tray's Sikhs) Native Infantry.

(a) Too complicated, I think. The rules regulating the reserve should be as simple as possible. All men while in the reserve should be liable for active service. If the reserve was formed by districts, so many regiments to each, one or more districts could be called out at a time, as might be necessary, and the classes best suited for the occasion. Of these, so many of the most fitted could at once be sent to join regiments at the front (their old regiments as far as possible), bringing them up to fighting strength; the rest kept for garrison or escort service.

(b) The pay of both to be, while thus employed, at the same rate as they received when leaving their regiments to join the reserve, those actively employed at the front receiving in addition any advantages of "free ration," "warm clothing," &c., enjoyed by the rest.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I do think so. After a certain term of service they should pass from the first class into the second. The first class would form the active reserve; the second class would be composed of older men qualifying for pension, and even of pensioners, and would only be liable to be called out for garrison duty.

(a) The pay of each class should be the same, *viz.*, two rupees a month.

(b) He should serve in the first reserve about ten years, in the second until he obtains his pension, and even afterwards, and, whether a pensioner or not, would be liable to be called out for garrison duty.

Major R. A. Wauchops, 14th Sikhs.

(a) I think if a man be called away from his home, he would as soon or sooner go on active as on garrison service.

Major A. C. W. Crookshank, 82nd Pioneers.

(a) On the understanding above mentioned, I would say no; it is too complicated an idea for the Native mind to grasp. I think the pensioners may be looked to as the garrison reserve or "Landsturm," if such is needed. Reserve men should be carefully inspected at their annual training, and be discharged when found unfit either with gratuity, or *pro rata*, or deferred pension, thus passing them into the pensioner class; this latter class might also be annually inspected and divided into the two classes of men who possibly may be useful for garrison service and men of no use. I hardly see a necessity for any further division.

(b) They should only be in one class.

(c) In the reserve list, until he is entitled to pension by length of service, or is unfit to join the army in case of war. There would then be three classes, *viz.*—

I.—Active army of all men with the colors.

II.—Reserve list of all men fit to rejoin the colors for war.

III.—Pension list divided into (a) men who are fit to do garrison duty; (b) men who are past that work, and on whom the country has no claim.

Captain H. D. Hutchinson, 40th Native Infantry.

(a) Yes, I would advocate two such classes. At this moment if the formation of such a reserve were ordered, the men to be transferred to it would have to be picked, some to go into the first reserve, some straight into the second; but *afterwards* the regular course would be through the first reserve into the second. I would make no exception to this rule. If a man is not fit for transfer to the first reserve, let him be discharged with gratuity.

(b) It should be the same (sepoys Rs. 4, non-commissioned officers Rs. 7, a month), and the same continued to them when transferred permanently to the pension establishment.

NOTE.—Pensioners now get Rs. 4 and Rs. 7 a month after 15 years' service, and do nothing for it, and the pension list is consequently an enormous one. It would be ample to give men in the first reserve these rates of pay. They have little to do during December or January, when they would be called in for their annual training, and they would get a full month's pay for coming in. After five years in the first reserve they go to the second, and are now no longer liable to active service; but they have now served at least 22 years; so I could give them the same as before, and after another five years, that is 27 altogether (17 with the colors, 5 in first reserve, and 5 in the second reserve), continue the same rate to them as pension.

(c) Five years in each.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

(a) Yes, I would divide the reserve into classes; the men to be examined annually during training time and classified accordingly.

(b) While not called out, I would give the 1st class Rs. 5 and 4 per mensem, according to efficiency; the 2nd class Rs. 3 and 2. I consider that with Goorkhas a grant or allotment of land at any convenient place in the hills would make the reserve extremely popular. When reserve men are undergoing annual training or embodied with the sedentary battalion, they would receive full line rates of pay.

(c) The classification would be rectified annually, and the maximum limit of service would be 32 years (combined active and reserve).

Major A. Battye, 2nd Goorkhas.

(a) Certainly, a very good plan.

(b) There should be no difference, provided the 2nd class man had completed his service of 12 years in the 1st class. If permitted to join 2nd class before completing the full period in the 1st class, should get pay at the rate of Rs. 1-8 a month; also the annual half mounting allowance of Rs. 2, and an additional Rs. 2 during training of one month: total Rs. 22. The total pay and uniform allowance of the 2nd class man who had completed 12 years in the 1st class would be Rs. 23, his training lasting only one month.

(c) Twelve years in each.

Major F. F. Rowcroft, 4th Gorkhans.

Fide answer 17.

Colonel B. Dhair, 3rd N. I.

Certainly not; it would cause confusion.

Colonel H. Boisragon, Commandant 4th Sikhs.

(a) I have already answered this in my reply to question No. 5, giving my views on this point—the first line for active service, the 2nd to feed the 1st and for garrison duties generally.

(b) According to my suggestion, *vide* reply to No. 5, 1st line full pay, as at present; 2nd line full pay, as indicated in answer to question 18; 3rd line would have their pension, plus one rupee extra per mensem, whilst employed on any duty.

(c) Answered in reply to question 18, and to be pensioned after 20 years' service.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

I would only have one reserve; but I think it would be good to enroll pensioners for garrison service in time of war.

Lieutenant-Colonel J. J. Eswell, Commanding 2nd Sikh Infantry.

(a) Yes, active and garrison.

(b) Two rupees per mensem to both active and garrison for eleven months, and full pay during a month's training.

(c) Six years in the first and five years in the second.

Lieutenant-Colonel B. R. Chambers, 6th Punjab Infantry.

Fide answer 16.

Major A. G. Ross, Commanding 1st Sikh Infantry.

(a) It would be an advantage, and I would use 1st class for active service, and 2nd for garrison duty only (save in great straits), and I would pass 1st into 2nd class.

(b) 1st class Rs. 3 per mensem.

2nd class Rs. 2 per mensem.

Both classes full pay of *service done with colors* when called out for duty service or drill.

(c) A man should serve in 1st reserve until the aggregate of his color and reserve service be 15 years, *e.g.*, a man serving 12 years with colors would serve 3 years in 1st reserve.

In 2nd reserve a man should serve 9 years, *i.e.*, until his color and reserve service aggregates 24 years.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

(a) I can see no advantage in the reserve system.

(b) Ditto.

(c) Ditto.

Col. G. Hearn, Comdg. 15th M. N. I.

Fide answer 17.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Two rupees per mensem.

(a) No, I do not think it would be advisable to have two classes.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

(a) If a reserve is raised, I would keep it to one class and make it as little complicated as possible.

(b) I do not think there should be two classes.

(c) I have already said I think there should be only one class of reserve.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Infantry.

(a) Yes, the first class or ban of the reserve should be composed of men on permanent furlough from the army, who by rejoining their battalions would bring them at once up to their full war strength; the second class or ban should form reserve battalions and be available for garrison duty only.

(b) It is the custom in our Indian army to increase the pay for length of service, and I do not think any reduction could be made in the pay of the second class reserve. The rates of pay given to the second class reserve when called out under arms might be made lower than those given to the army.

The large reserves of the Continental armies are kept up at a trifling expense to the State, as the men are forced to serve and receive no pay except when embodied.

(c) 7 years in the first reserve (on permanent furlough from his regiment of the army) and as long as he can in the second or garrison reserve. Nothing would be gained by pensioning him, unless the present pension rates were much reduced.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

(a) Yes, if the first class could be kept embodied.

(b) The First class	...	...	...	Rs. 6
Second class	...	...	...	" 5

(c) Ten years in first.

Five years in second.

Major E. Faunce, Commanding 14th Madras Native Infantry.

No, the Native troops I am acquainted with would be of no more practical use for field service than recruits after they had been any time

out of the ranks. Those who have not actually served in a Native regiment can have no idea of the constant labor, the unremitting attention on the part of the few European officers that a good Native regiment represents. Another objection to reserves.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

(a) A sepoy should remain in the first class reserve for ten years after joining it, that is, until he has completed 25 years' service, and should then pass into the second class, where he should remain until he finishes his time.

(b) On first joining the reserve the pay should be Rs. 3 per mensem for sepoys: this should be raised to Rs. 4 in the second class reserve, and the final pension should be Rs. 5, the superior rates being abolished, except for men who had served the whole 32 years with the colors.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

If it were considered desirable to form a reserve, I would not recommend its being divided into classes.

The men of the reserve might be quite equal to jail and treasury guards, or, even at a stretch, garrison duty, but I do not think that, with the small amount of drill which they would be likely to have, they would be fit to fall in with a regular regiment, and I think it would be found that their musketry would have fallen off to such an extent as to utterly unfit them for active service.

Colonel S. Edwards, Commandant
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay
Native Infantry.

Yes, the reserve should be in two classes, the 1st class consisting of those who, having served upwards of 15 years in the regular army, have elected for, or been transferred to, local battalions; the 2nd class to consist of those who elect to pass at once from the regular army into the 2nd reserve on a lower rate of pay; and also those who have passed through the 1st reserve.

The 2nd reserve would be available in time of war, &c., to take the place of these local battalions which are sent on service, as the second line of the army, to garrison forts and keep open the line of communication.

The pay of the 1st class reserve should be that of local battalions at present existing.

The pay of the 2nd class Rs. 5 per mensem for those who have served their time in the 1st class, and Rs. 4 for those who have gone straight from the regular army into the 2nd class.

A man should not serve more than an aggregate of 25 years in the regular army and 1st reserve and 7 years in the 2nd, or 32 years in all.

The system of pension to be as follows:—

If unfit after 15 years' service, Rs. 4 per mensem. If unfit after 7 years in the 1st reserve, or after 24 years' aggregate service in the regular army and 1st reserve, Rs. 5 per mensem. After 32 years' service, 7 of them in the first reserve, Rs. 7 per mensem.

For non-commissioned officers, pensions respectively of Rs. 7, Rs. 9, and Rs. 12; and for Native officers—

			Rs.	Rs.	Rs.
Jemadars	...	...	12	18	25
Subadars	...	...	24	35	50

Pensions claimable:—

1st pension after 20 years in the regular army and 1st reserve, or after 25 years in all.

2nd pension after 25 years' service in regular army and 1st reserve, or after 32 years in all.

3rd or full pension after 32 years' service, having qualified for the 2nd pension.

Colonel W. Bannerman, 4th
Bombay Rifles.

The reserve should be liable for garrison service only.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

(a) No, I would select the men best fitted for active service from the whole when required.

(b) I do not so consider.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

No, I see no advantage. I would on the outbreak of a war embody the whole reserve or that of certain districts; I would then have them examined by a board, with a medical officer in attendance, and would select those fit for active service, and those fit for garrison duty and return to their home, those fit for neither.

(b) } I don't consider two classes

(c) } in the reserve feasible.

Colonel Creech, Commanding
19th Bombay Native Infantry.

(a) Yes, I would divide the reserve into two classes.

(b) I should pay the same to both classes, but would pay the men half-yearly in arrears, so that, if any did not respond when called on, they would forfeit the balance due to them, in addition to any other punishment which would be awarded.

(c) 1st reserve 6 years.

2nd " 10 "

Col. A. Carnegie, 21st Bo. N. I.
Colonel J. Fairbrother, Com-
manding 22nd Bombay N. I.

Vide answer 17.

Vide answer 18.

Lieutenant-Colonel O. V. Tan-
ner, Commanding 29th Bombay
Native Infantry.

(a) I think it would. Many would gladly serve in garrisons, and be useful to keep up communications, who would not feel themselves up to more active service.

(b) First Rs. 5, second Rs. 3.

(c) Of the 10 years in the reserve, 5 might be in the first and 5 in the second, or according to their fitness.

20. What percentage, if any, would you propose to retain for long service with the colors, and what should be the limit to that service?

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

I would allow all who wish it to remain with the colors so long as they are really efficient. Up to twenty years for non-commissioned officers and soldiers, and twenty-five for Native officers.

It would be a very great mistake to train the whole country to the use of firearms. A man once instructed should never be lost sight of again.

Colonel T. Boisragon, Com-
manding 30th Punjab N. I.

Vide answer 18.

Colonel E. Dandridge, Command-
ing 40th Native Infantry.

I would enlist all for 25 years' service when retirement should (excepting in the case of Native officers) be compulsory.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

Provided service with the colors, before being passed into the reserve, were fixed at twelve years' duration, there would be no occasion for retaining men for long service. All men after twelve years' service should be compulsorily passed into the reserve, excepting in the case of non-commissioned officers (including lance-naiks) who should be encouraged to elect to serve the full period of twenty-five years.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

I would lay down no percentage until experience had proved it absolutely necessary to do so.

I would allow all short-service men to enter the reserve (first class). I would transfer men compulsorily to the first class reserve after 15 years' service (*vide* 18), but authorizing commanding officers to retain such men as they may think desirable, subject to the following limits:—

	Years.
Native officers to be pensioned at ...	30
Non-commissioned officers to be pensioned at ...	25
Sepoys transferred to second reserve at...	20

Every regiment, such as that described in answer 5, should have a reserve of 1,000 men; the limits of compulsory transfer might be regulated by that condition.

Lieutenant-Colonel P. Harris,
Commanding 11th N. I.

Vide answer 16.

Lieutenant-Colonel L. H. Wil-
liams, Commanding 14th Sikhs.

Twenty-five per cent. Those men most likely to turn out good Native officers and non-commissioned officers might be retained on the active list for a second period of five years. Should they not have been promoted at the end of that period, they should be passed into the first reserve, the service in that class of the reserve being reduced to five years, after which they might be passed into the second reserve to complete their 20 years' service for pension.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

I would not retain less than two-thirds of the men for long service with the colors, and I would limit their service to 30 years.

Lieut.-Col. R. G. Rogers, Com-
manding 24th Punjab N. I.

All for 15 years, unless previously declared unfit for active service.

Lieutenant-Colonel F. B. Nor-
man, Commanding 24th Punjab
Native Infantry.

I would limit the number to *leave* the colors every year to join the reserve to 5 per cent. Our small regiments would not retain their efficiency if subject to a greater drain than the above. The limit of service of those who remained with the colors should be as at present.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

The one great difficulty attending the establishment of a short-service system with reserves is that of retaining the services of efficient non-commissioned officers with the colors. It is the great difficulty which has been experienced in the British army. For whatever may be the importance of having good non-commissioned officers now, it will be increased tenfold when we change to a short-service system.

The non-commissioned officers of a battalion are, in my opinion, the most valuable section in it.

To them is entrusted the execution of all details of training and duty, and their frequent employment on detached duties places them in situations calling for the exercise of judgment and discretion.

Considering, then, the necessity for securing a good stamp of men in the non-commissioned grades, and of encouraging the best men in a regiment to qualify themselves for advancement thereto, it was a matter of surprise to many officers in the army (Indian) that when, on a recent occasion, the pay of other ranks was raised, no increase was made to that of the non-commissioned officers.

In future, however, I think it will be found necessary to make the pay and position of non-commissioned officers such as will induce really good men to make the army a profession, in which it will be worth their while to pass the best years of their lives. I would propose therefore the following rates of pay for non-commissioned officers:—

Havildars	...	{	1st class @ Rs. 18
		{	2nd " @ " 16
Naiks	...	{	1st " @ " 14
		{	2nd " @ " 12

per mensem.

The first class of each grade should consist of 16 men, and the second class of 24.

With special reference to this question, I would suggest that only such men as become non-commissioned officers during their eight years' service with the colors should be allowed to prolong their service.

I would recommend they should be allowed to serve continuously with the colors while efficient and fit for active service up to the age of 15 years, after which they should, if not promoted, be discharged with pension.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Fifty per cent. The limit 20 years, except in special cases, supposing the reserve system *not* adopted.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattay's Sikhs) Native Infantry.

All men enlisted should be liable to long service with the colors, limit 24 years, unless physically unfitted before that time and recommended for transfer to pension establishment.

So many men only per regiment to be passed yearly to the reserve as Government might require for the district reserve to which the regiment belongs: this number to be selected from men of good character of at least twelve years' service, wishing to leave the regiment for their homes on account of family reasons.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

There would always be a certain number retained for long service with the colors: the percentage would depend upon the number of men who take their discharge and the number of men transferred to the reserve to fill vacancies in it. I would enlist recruits for eight years with the colors: at the end of that term they would either pass into the reserve, if vacancies exist, and they are willing to do so, re-engage for a further period, or take their discharge. I would make them re-engage for periods of three years, and would have no limit to re-engagement, provided the men were physically fit, and the commanding officer approved.

Major R. A. Waughope, 14th Sikhs.

When the reserve for a regiment had reached its proper strength, it would be a waste of money to add to it, and to put a limit, unless it be a long one, to a good man's service with the colors would be a waste of soldiers.

Major A. C. W. Crookshank, 32nd Pioneers.

No fixed percentage with the colors; but I would tie the reserve down to the strictest limits. From after 5 years' service to when a man is pensioned I would give him the option of joining the reserve when there was a vacancy. After 21 years' service, if a man took his pension, and was physically fit, I would, if too good for the garrison class of pensioners, bear his name for a time in the reserve list.

Captain H. D. Hutchinson, 40th Native Infantry.

Ten per cent. up to 22 years' service, and 5 per cent. over 22 years' service for an indefinite period. An inspecting general should ask to see these men, and report upon their appearance, &c. These men should be exempt from service in the reserve.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

All Goorkhas enlist for long service; the limit should be 32 years, and reserve men who had in time of war become embodied in the sedentary battalion might continue with it as long as fit; when no longer so, be pensioned under foregoing rules. It must be specially understood that the reserve system for Goorkhas would be a substitute to a great extent for the pension list. I hardly think young men would enter the reserve in great numbers.

Major A. Batty, 2nd Goorkhas.

Retain for long service with the colors all who wished to remain as at present. If a regiment does not fill up its reserve of 200 men from volunteers within a reasonable time, it will show that the system does

not answer when further changes could be introduced. I would not limit service with the colors, otherwise than it is now limited, *viz.*, by physical fitness to serve. A man who had served 15 years with the colors, and had become unfit for further active service, and entitled by present rules to a pension of Rs. 4 a month, should be transferred to the second class reserve if fit for garrison duties, and get Rs. 5 a month instead of Rs. 4.

Major F. F. Rowcroft, 4th
Goorichus.

Vide answer 17.

Colonel R. Blair, 3rd Native
Infantry.

I should only retain for long service with the colors Native commissioned and non-commissioned officers; limit to be 30 years.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

The percentage to be retained would depend entirely on circumstances, (public service and personal), but limited to five years, by which time, say the average age of a recruit, when entertained, is 18 years (and he should not be enlisted before that), the soldier would then be about 43 years old, by which time a Native usually is passed work, or considers himself so, and as an unwilling agent had best be invalided, certainly by the time he is 45 years of age.

Lieutenant-Colonel F. H. Jen-
kins, Commanding Corps of
Guides.

I would pass privates of 15 years into the reserve till it was completed up to 200 men. If the reserve did not fill quickly enough, I would send into it men of 14 and 13 years' service.

Lieutenant-Colonel J. J. Boswell,
Commanding 2nd Sikh Infantry.

It would be difficult to lay down any percentage, as it is (at present) optional with men to claim their discharge after three years' service. I would suggest ten years be the limit for sepoys to serve with the colors, allowing commissioned and non-commissioned officers to remain under present rules.

Lieutenant-Colonel B. R. Cham-
bers, Commanding 6th Punjab I.

Vide answer 16.

Major A. G. Ross, Command-
ing 1st Sikh Infantry.

Privates (save special exceptions) I would pass into reserve after 12 years' service with colors.

Buglers I would pension, whether well or ill, after 25 years' service with colors at Rs. 4 per mensem. If their health broke, I would give pensions of Rs. 3 per mensem, from 15 to 20 years' service; and if health broke, Rs. 4 after 20 years' service.

Non-commissioned officers.—If health failed after 15 years' service, I would give pensions Rs. 4 per mensem. If in health, I would after 15 years, if they wished it, let them join second reserve, and in this case would give them Rs. 6 per mensem pension after an aggregate of 24 years' service.

If they remain with the colors I would, if their health broke, after 20 years, pension them on Rs. 7 per mensem. And after 25 I would let them go, well or ill, on Rs. 7 per mensem pension.

Native Officers.—Health breaking after 15 years—

Pension subadar	...	...	Rs. 12 per mensem.
" jemadar	...	...	" 8 "

after 24 years in all.

If they join second reserve after 20 years:—

Pension subadar	...	...	Rs. 20 per mensem.
" jemadar	...	...	" 10 "

If they stay on with colors—

(a) Health breaks between 20 and 23 years:—

Pension subadar	...	...	Rs. 18 per mensem.
" jemadar	...	...	" 9 "

(b) Health breaking between 23 and 25 years:—

Pension subadar	...	...	Rs. 20 per mensem.
" jemadar	...	...	" 10 "

As for reservist Native officers after 24 years.

(c) After 25 years with colors, I would let any Native officer retire, whether, well or ill, as he pleased.

Pension subadar	...	...	Rs. 25
" jemadar	...	...	" 12-8

I would not have any enhanced pensions for any one. I would give the subadar-major as now his Rs. 50 per mensem.

I can imagine nothing but baneful effects as likely to result from the application of the reserve system to the Native army.

Colonel A. Jenkins, Command-
ant 2nd Madras Native Infantry.

Vide answer 17.

Col. G. Hearn, Comdg. 15th
M. N. I.

Colonel L. W. Duck, Com-
mandant 20th Madras Native
Infantry.

At least one-third of the men should be retained for long service which should extend to twenty-five years, and in the case of non-commissioned, twenty-eight years.

Col. W. A. Gib, Commandant
25th Madras N. I.

Fifty per cent., and the limit of that service 30 years.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

If the reserve system worked well, I would keep no old soldiers with the colors. But at first, as our service is voluntary, the men should have the option of entering the reserve or of continuing to serve with the colors for their pension in the usual manner.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.
Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

I would keep every private for fifteen years with the service battalion of his regiment, after that I would draft him into the second.

I would permit 25 per cent. of the men eligible for transfer to the first reserve each year to continue serving until they had completed 25 years' service, when one-half of the men so allowed to serve should be transferred to the second reserve direct; the remainder, who would be specially selected for their superior physique and constitution, would be permitted to finish their service with the colors. All Native officers and non-commissioned officers desirous of doing so might, if fit, serve the full time.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

After a man had served 25 years, I would leave it to the commanding officer to keep him for the remaining five years to serve for pension, or a portion of it as he thought fit.

Colonel S. Edwardes, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

I would allow all men to serve with the colors for 20 years, provided they are considered in every way fit for active service; after that period they should join either the 1st or 2nd class reserve. Non-commissioned officers might be retained longer in special cases.

Col. G. W. Hanson, Commanding 9th Bombay N. I.

Vide answer 13.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

I would fix no percentage, but let the movement into the reserve be voluntary, stopping it at any time if it was found too many old soldiers were leaving. As long as men are *willing* and *fit* to serve, it is good policy to keep them. A Native regiment with too many young soldiers would be worse than a British one in the same state.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

I would have no fixed percentage, but would empower commandants, not officers in temporary command, to retain men beyond the limit laid down for pensions, the attention of inspecting generals being specially drawn to such men for their remarks and approval. Their total service should not exceed 30 years.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

Those men wishing to remain with their regiments after serving twelve years should be permitted to do so until considered unfit by their commanding officers, when they might be passed into the reserve (2nd class) if eligible.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Vide answer 17.

Colonel J. Fairbrother, Commanding 22nd Bombay N. I.

Vide answer 18.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

I would retain all men who were willing up to 20 years if fit.

21. How many days' training a year should he have?

Colonel J. Doran, Commanding 27th Punjab N. I.

One month in each year: half of this time to be devoted to musketry.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

Under the system I propose, no annual training would be necessary. The man who had served three years with the colors would know quite enough to be an efficient soldier a month after being called up. The same with the old soldier for garrison duties.

Colonel T. Boisragon, Commanding 30th Punjab N. I.

Vide answer 18.

Colonel E. Dandridge, Commanding 40th Native Infantry.

One month.

Colonel G. W. Fraser, Commandant 39th N. I.

Not under two months in my opinion.

Lieutenant-Colonel H. Worsley, 7th Bengal Native Infantry.

1st class reserve.—Two months every other year; this would be a more economical arrangement and one more popular with the sepoy than a shorter annual training. Besides which, the training could be more efficiently carried out.

2nd class reserve.—No training necessary, certainly not more than once in three years.

Lieutenant-Colonel P. Harris, Commanding 11th Regiment, Native Infantry.

Ten days' annual training should suffice. It could be given at stations most conveniently situated to their homes, and which would likewise be the stations they would garrison in time of war. For these

Lieut.-Col. L. H. Williams,
14th Sikhs.

Lieut.-Col. R. J. Walker,
17th N. I.

Lieut.-Col. R. G. Bogars,
Comdg. 20th P. N. I.

Lieut.-Col. F. B. Norman, Com-
manding 24th Punjab N. I.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

Lieutenant-Colonel G. C.
Rowcroft, 35th Native Infantry.

Lieutenant-Colonel F. M.
Armstrong, Commanding 45th
(Battray's Sikhs) N. I.

Major R. S. Robertson, 4th N. I.,
Offg. Asst. Adjt. Genl., Allahabad
Division.

Major R. A. Wauchope, 14th
Sikhs.

Major A. C. W. Crookshank,
82nd Pioneers.

Captain H. D. Hutchinson,
40th Native Infantry.

Colonel R. Sale Hill, Com-
manding 1st Goorkhas (L. I.)

Major A. Batty, 2nd Goorkhas.

Major F. F. Rowcroft, 4th
Goorkhas.

Colonel R. Blair, 3rd Native
Infantry.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

Lieutenant-Colonel J. J. Bos-
well, Commanding 2nd Sikh I.

Lieut.-Col. B. R. Chambers,
Commanding 6th Punjab Infy.

Major A. G. Ross, Command-
ing 1st Sikh Infantry.

Colonel A. Jenkins, Command-
ant 2nd Madras N. I.

Colonel G. Hearn, Commanding
15th Madras N. I.

Colonel L. W. Buck, Command-
ant 20th Madras N. I.

Colonel W. A. Gil, Command-
ant 26th Madras N. I.

Lieutenant-Colonel F. H. Tyr-
rell, 37th Madras Infantry.

Major E. Faunce, Command-
ing 14th Madras Native Infantry.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

annual periods they might receive a small sum, according to rank, to cover travelling and other expenses.

The first reserve one month, the second reserve a fortnight.

At least one month's training every year.

The first reserve would necessarily be always under training. The second should have 30 days in every 365.

Thirty days.

I think 28 days' training annually would be ample. I would devote at least six days of this time to musketry training, including target practice.

Two full months.

One month, and at the time the men could best be spared from their field labor.

The reserves should undergo thirty days' training in the year.

Twenty-one days.

21 days as a *minimum*, viz.—

Cloth and arm	..	...	...	1
50 drills, say	...	...	...	17
Sundays	...	...	...	3
				—
				21
				—

The drills would be 15 days of two parades a day with midday instruction, *i.e.*, 7 for squad, position and company drill, 7 for target practice and J. D. P. in morning and battalion drill in evening, and one for a field manoeuvre.

Five weeks. In the months of December and January it could easily be managed. The first week would be fully taken up in receiving the men, assigning them quarters, arms, accoutrements, duties, &c. The next three weeks should be devoted to drill and shooting, and the fifth week to paying up, discharging, &c.

One month's training.

1st class reserve, sixty days.

2nd " " thirty "

Fide answer 17.

Twenty-eight days.

By the system I have suggested herein, the 1st and 2nd lines would always be under training; the 3rd line might be called out for 30 days annually.

One month.

Fide answer 16.

I would try 15 days' *hard* training, exclusive of Sundays; if not enough, 21 days and up to 30 days.

Fide answer 20.

Fide answer 17.

Thirty days.

Thirty days' training a year.

One month when in the first reserve, and a fortnight when in the second reserve.

Pensioners should be called out for 21 days' clear drill every year.

Twenty-eight days.

Brigadier-General A. B. Little,
Comdt. 25th Bombay N. I. I.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay
Native Infantry.

Colonel W. Bannermao, 4th
Bombay Rifles.

Colonel G. W. Hanson, Com-
manding 9th Bombay N. I.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

Colonel R. Mallaby, Command-
ant 13th Bombay Native In-
fantry.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Lieutenant-Colonel O. V. Tan-
ner, Comdg. 29th Bombay N. I.

Twenty-five days.

The first reserve or local battalions would always be fully trained, although not so highly as the regular army.

The second reserve should undergo a month's training each year, receiving the pay of the local battalion and a free pass by rail and sea, or mileage from and to their homes.

Twenty-one days clear, or one month at most.

Vide answer 13.

At least one month. Natives rapidly forget their drill when out of harness: less than a month would be useless.

I would divide the whole recruiting area into districts, some large military stations being its centre. All reserve men in each district should be warned, through the civil authorities, of the day on which his presence is required at the centre; they should be 20 days under training, and drill establishment of regiments should be called on to take them in hand.

Twenty-one days would suffice, as in the militia at home.

Vide answer 17.

With constant looking after and training almost every other day in the year, we know how difficult it is to keep a Native regiment in perfect order. I am therefore of opinion that he would require a good many, and not be very effective afterwards.

Twenty days should suffice.

22. Where should the arms, clothing, and equipment of the reserve men be kept?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native In-
fantry.

Colonel T. Boisragon, Com-
manding 30th Punjab Native
Infantry.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

Colonel G. W. Fraser, Com-
mandant 39th N. I.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

Lieutenant-Colonel P. Harris,
Commanding 11th Native In-
fantry.

Lieutenant-Colonel L. H.
Williams, 14th Sikhs.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

Lieutenant-Colonel R. G.
Rogers, Commanding 20th
Punjab Native Infantry.

Lieut.-Col. F. B. Norman,
Commanding 24th Punjab N. I.

At the military station nearest his home.

There should be a fixed head-quarter station for every Native regi-
ment in or near the area from which it is recruited.

The clothing and equipment of the reserve men should be kept there with the companies to which they belong. Their arms and ammunition should be kept at the nearest arsenal or ordnance depôt.

In small expense magazines to be built at head-quarter centres *in proximity to the magazine of a British regiment*. Should no British regiment be cantoned at a reserve head-quarter centre, then the expense magazine should be built at the nearest station where there is a British regiment.

At the district recruiting depôt, should there be one; if not, at the cantonment nearest his home.

At the depôt centre which would presumably be formed for the reserves of a certain number of regiments.

At the regimental depôt, where the training should be carried out, and at which the men could be equipped on mobilization previous to joining the service battalions.

The arms, ammunition and equipment of the reserves should be kept at the stations where they have their training. They might be themselves entrusted with the charge of their own clothing, which would consist of that to which they were entitled at the time of being invalided.

At the head-quarters of the regiment to which they belong, and to be under the charge of a European regiment when quartered at the same station.

At the fixed head-quarters of the regiment mentioned in question No. 7.

Arms at head-quarters of divisions and districts, and clothing in possession of each individual of the 2nd reserve.

The 1st reserve would of course be always armed and equipped for service.

At the nearest military station.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

The arms, clothing, and equipment of reserve men should be kept at the head-quarter stations of regiments (if such a system as is contemplated in question No. 7 be carried out), or at certain central stations between Nowshera and Umballa, as might be found most convenient for assembling the men for training and payment.

Supposing the twelve battalions of Punjab Native Infantry, as now existing, to be formed into four regiments of three battalions each (excluding the 23rd and 32nd Pioneer regiments), then four stations out of the following might be selected as head-quarter stations, and one of the battalions of each regiment might be always stationed at one of those places, and there might be assembled the reserve men of the regiments for training and payment:—

Nowshera.
Rawal Pindi.
Sialkote.
Meean Meer.
Ferozepore.
Jullundur.
Umballa.

The only difficulty would be in collecting the Pathans, for it would be inconvenient to bring them so far as Umballa or Ferozepore; but this might be specially arranged for by the whole of the Pathans belonging to the battalion below Lahore assembling at Nowshera, and being trained with the battalion there. In the same way, Sikhs belonging to corps above Rawal Pindi might be trained with the battalions at Ferozepore and Meean Meer.

Lieutenant-Colonel G. C.
Bowerst, 35th Native Infantry.

A broad question, the answer to which depends upon the future system and organization decided upon.

If fixed head-quarters of battalions are instituted, at such head-quarters, if recruits are drawn from particular areas of country. Otherwise at such local military centres as may be selected for the embodiment of the reserves for annual training. These centres would be the rallying points for all the reserve men of neighbouring specified districts or collectorates, and if located on the line of rail, the men ready armed and clothed could thence be despatched to their own or other battalions, to go through their training, unless local arrangements could be made at these centres for the same being properly carried out.

Arms and equipment at head-quarter station of district reserve; clothing to be kept by the man himself.

They should be kept with the battalion which is stationed at the fixed head-quarters.

Lieutenant-Colonel F. M.
Armstrong, Commanding 45th
(Battaly's Sikhs) Native Infantry.

Major R. S. Robertson, 4th Na-
tive Infantry, Officiating Assistant
Adjutant-General, Allahabad Di-
vision.

Major R. A. Wauchope, 14th
Sikhs.

Major A. C. W. Crookshank,
32nd Pioneers.

The arms in a magazine at or near the central depôt under a British guard, the clothing and equipment also at the central depôt.

Under existing conditions of plum-pudding regiments, there must be reserve centres where the training would take place and the arms be kept.

But I hope that the future will see all our regiments class* regiments, recruited territorially and having a regimental head-quarters where the regiment or its depôt would be, and where all possible reservists or pensioners could assemble for drill or inspection.

Captain H. D. Hutchinson,
40th Native Infantry.

His clothing each man should keep himself. It should consist solely of his English ammunition boots (not shoes), a *khaki* blouse, and a *khaki* turban. When he leaves his regiment he should take these with him, and keep them always. Pantaloon is not required, the Native *dhoti* is quite sufficient. If called out for active service, he could be easily supplied with pantaloon and a great coat, but it would be a needless expense to keep them up always. At the head-quarters of each division—or command—a large bell of arms should be built to accommodate the rifles and accoutrements of the reserve men. It should be in charge of the Native regiment located there. When men are transferred to the reserve, they should choose their own station to which to come into for the annual training. A roll of the 1st reserve men and of the 2nd reserve men should be kept in each staff office. An officer or two from the Native troops in the station should be specially told off to look after and instruct the reserve men when they come in. Tents should be pitched for their accommodation while they are in. In this way their training might be effectively carried out at a nominal cost to Government.

Colonel R. Sale Hill, Com-
manding 1st Goochlas (Light
Infantry).

With the head-quarters of the regiment, and a building to be provided for storage, or should land be allotted, the arrangements might be made at such place; and the men clothed, equipped, and sent to head-quarters of their regiments for training.

- Major A. Batty, 2nd Goorkhas. Arms and accoutrements for 200 reserve men should be kept by each regiment in its own bells-of-arms, a small allowance being made to men employed in keeping them clean. This can be easily arranged by wing commanders out of their contract allowance.
- The reserve man should take care of his own uniform, consisting only of a *pyjama* (regimental pattern), *khaki* jumper with regimental badge on shoulder strap, and *khaki* trousers and Hindustani shoes.
- Major F. F. Rowercroft, 4th Goorkhas. *Vide* answer 17.
- Colonel R. Blair, 3rd Native Infantry. At the head-quarters of the regiment.
- Colonel H. Boisragon, Commandant 4th Sikhs. For the 1st and 2nd lines with them; for the 3rd one with 2nd line depôt, but always where there were British troops.
- Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides. The arms and equipment of the reserve should be kept in the arsenals, and should be drawn by the commanding officers of regiments before the reserve men joined the battalion for training or service. Reserve men would only require *khaki* clothing for training, and they might keep it themselves. They should also be required to bring up sufficient bedding for themselves, as they would get free passes by train, and be provided with public carriage when marching to and from their regiments. In the event of the reserve being called up for active service, commanding officers should make arrangements to supply the reserve men with *poshtees* and *ehogas*.
- Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs. At the nearest military station, under charge of brigade staff, who should have a staff of one classie for every 400 sets of clothing and equipment.
- Lieutenant-Colonel B. R. Chambers, 6th Punjab Infantry. *Vide* answer 16.
- Major A. G. Ross, Commanding 1st Sikhs. In some central depôt.
- Colonel A. Jenkins, Commandant 2nd Madras N. I. *Vide* answer 20.
- Colonel G. Hearn, Commanding 16th Madras N. I. *Vide* answer 17.
- Colonel L. W. Buck, Commandant 20th Madras N. I. At the military head-quarters of the districts where the reserve men were likely to assemble for annual training.
- Colonel W. A. Gib, Commandant 25th Madras N. I. At the military station where he was annually trained, which ought to be the nearest.
- Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry. At the head-quarters of his regiment, under charge of the regimental quartermaster.
- In the case of men of the second or garrison reserve in a depôt under charge of the reserve permanent staff.
- Lieutenant-Colonel P. A. Carnegy, 39th Madras N. I. At the fixed head-quarters of the regiment.
- Major E. Faunce, Commanding 14th Madras Native Infantry. In the nearest ordnance magazine or depôt.
- Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army. At depôts which it would be necessary to form and maintain for the purpose. The difficulties and delay which appear on a late occasion to have occurred in England in utilizing and equipping the reserve men make an arrangement of this nature a most important part of any scheme for a reserve.
- Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry. I think depôts should be formed, and arms, clothing, and equipment stored there.
- Col. S. Edwardes, Commanding 2nd (Prince of Wales' Own) Grenadier Regt. Bombay N. I. With the local battalion.
- Col. G. W. Hanson, Commanding 8th Bombay N. I. *Vide* answer 18.
- Colonel H. H. James, 10th Bombay Native (Light) Infantry. This must depend on what system is adopted. Depôts would have to be formed for the purpose. If there are second or reserve battalions to each regiment, the depôts should be there.
- There may be some difficulty in arranging this satisfactorily.
- Colonel R. Mallaby, Commandant 13th Bombay Native Infantry. The arms and belts, &c., should be kept in a depôt at the centre station. As to clothing, when he leaves his regiment for the reserve, he should take with him his last issue of drill cloth clothing, and be required to keep it up. When embodied for service, his necessaries could be procured in a short time.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

A building should be set apart for that purpose at each station near where the reserve would be assembled for training.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

Vide answer 17.

Lieut.-Col. O. V. Tanner, Com-
manding 29th Bombay N. I.

With the depôt battalion.

23. Have you any suggestion to offer as to the employment of the reserve men in the police, or in other posts under the civil administration?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

I should not recommend employment in the police, as it would probably have a deteriorating effect; but they might with advantage be employed on the railway and as chuprassis in many civil and military offices.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

I would strongly recommend their being employed in every situation practicable. A well-conducted and well-disciplined soldier would be found more useful than the generality of policemen, chuprassis, &c., as I say, in answer 20, the man who has been trained to the use of fire-arms should never be lost sight of. But there must be no thought of reduction of pay. Ordinary rates should be given.

Colonel T. Boisragon, Com-
manding 30th Punjab Native
Infantry.

Certainly not in the police nor under civil administration; but they might be most advantageously employed at the several offices at army head-quarters and division head-quarters, commissariat and public works, as orderlies and peons in the place of the large number of chuprassis now kept up at a considerable expense to the State.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

I do not consider it advisable that men who are likely to be called upon to serve again in the army should have a chance of contracting the habits of petty tyranny and bribery common to policemen and other subordinates connected with the civil administration of the country.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

I do not consider that it would be desirable to employ reserve men in the police, as in the event of their being called in on the outbreak of war, their services would be all the more required as police to maintain order in the absence of the regular troops on service; but I think they might with advantage be employed in the public works department, railways, and other Government employ, though of course only voluntarily.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

It is precisely in times of civil commotion, or when a large proportion of the army is on service, that you most require the police. It would therefore be unadvisable to employ reserve soldiers in the police.

They might perhaps be employed to a certain extent as chuprassis, or on the railways, as, if required for military duties, such places could readily be filled up from the civil population.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infan-
try.

The reserves consisting, as I propose, of the serviceable portion of our invalids, I would not advocate their employment in any civil capacity.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

I have no suggestions to offer as to the employment of the reserve men in the police, as I do not know sufficient of the working of that force; but if the police authorities could be induced to employ some of the reserve men, I think it would be an excellent system to introduce, and I would strongly advocate the civil employment of these men in every possible way,—supposing of course that the men themselves were willing to volunteer for it.

Lieutenant-Colonel R. G.
Rogers, Commanding 20th Punjab
Native Infantry.

The present police might and should to a very great extent be replaced as vacancies occur by men of the pension establishment (2nd reserve), as also the army of chuprassis, village watchmen, tax collectors, postal peons, jail, canal, and customs guards, and petty officers, railway signallers, gate-keepers, pointsmen, &c., and most other posts under the civil departments. Men so employed should be subject to periodical medical examination, and should, while serving, draw the difference between their pension and the stipends of present incumbents of such berths as they might be appointed to.

Lieutenant-Colonel F. R.
Norman, Commanding 24th
Punjab Native Infantry.

I do not suppose that the police officers would be willing to employ men who would have to attend military training for a certain time in each year. I also consider that it would be more impolitic in any way affiliate the reserve with the police.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

There are unquestionably many situations under the civil administration in which reserve men might be usefully employed,—such as warders and peons at jails and prisons, also on the lines of railway; but I am inclined to think their employment in the police would not be altogether advantageous.

I think the more the police force of the country is kept separate and apart from the army the better. At present there is a good deal of jealousy between the men of the two forces, and I am by no means sure that it has not its advantages.

Lieutenant-Colonel G. C.
Rowcroft, 35th Native Infantry.

I would decidedly not employ them in the police, as I fear they would contract habits and knowledge not to be wished for in a soldier. I think, however, they might be advantageously employed in other posts, and with a saving to Government, as chuprassis and messengers; though the inconvenience must be taken into consideration which would result from their being withdrawn for annual training, or for sudden embodiment in war time.

Lieutenant-Colonel F. M. Armstrong,
Commanding 45th (Rattray's Sikhs) Native Infantry.

Difficulties would certainly arise by the sudden withdrawal of large bodies of reserve men from the police on any other civil employment. I have no suggestion to offer for the employment of the reserve men. I consider they should be a distinct body, available for any sudden call.

Major R. S. Robertson, 4th Native
Infantry, Officiating Assistant
Adjutant-General, Allahabad
Division.

I think it would be a good plan to employ a certain proportion of the reserve men in the police, or in other posts, if they wish such employment. Perhaps arrangements might be made with the civil authorities to employ a small percentage of reserve men with the police stationed within the battalion's recruiting area. The percentage to be so small, that it would not, in the event of the reserves being called out, materially affect the efficiency of the police.

Major A. C. W. Crookshank,
82nd Pioneers.

A fixed percentage, not exceeding 50 per cent. of the police, should be reservists; and priority of selection should be given to reservists in the minor posts of the State railways to a similar extent. Similarly, to a greater percentage, say 75 per cent., all posts of chuprassis in civil courts, offices, and other institutions under Government, patrols, chowkidars, forest rangers, and fixed hired labor. In all departments under civil and military the numbers and posts should be fixed by the head of the department and not be less than 50 per cent. In the civil administration, deputy commissioners should be held responsible that from 50 to 75 per cent. of posts are held by reservists, failing which the pay of the employés should be objected to by accountants-general. Thus alone the movement be made popular. To avoid crippling departments, only half would be called out at a time for drill.

Captain H. D. Hutchinson,
40th Native Infantry.

I should not approve of their being so employed. Perhaps, too, it would in such cases be inconvenient to spare them when required for their annual training.

Colonel R. Sale Hill, Com-
manding 1st Goorkhas (L. I.)

Goorkhas who go in for this sort of employment do not enlist in the army.

Major A. Batty, 2nd Goor-
khas.

The police could be always utilized as it is for a reserve by calling for volunteers from it to assist in completing the war strength of regiments ordered on service. But neither the police nor other departments should be crowded with reserve men, on whose sudden withdrawal those departments would become disorganized.

Major F. F. Rowcroft, 4th
Goorkhas.

Vide answer 17.

Colonel E. Blair, 3rd Native
Infantry.

I should allow the man to take any employment, so long as it did not interfere with his usual training.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

By my suggestion, only the 3rd line, or invalids, would be available for police duties or chuprassi work, to be employed in their own districts or for railway purposes. I do not perceive how else they could be well utilized in other posts under civil administration.

Lieutenant-Colonel J. J. Bos-
well, Commanding 2nd Sikhs.

I do not think men of the reserve should be employed in departments which would, in the event of the reserves being called out, lose their best men; besides it is not every soldier who is fitted for police duties, as I can testify to from experience when the Punjab Military Police Battalion (which only performed military duties) were drafted into civil police in 1861.

Lieut.-Col. B. R. Chambers,
Commanding 6th Punjab Infy.

Vide answer 16.

Colonel G. Hearn, Commanding 16th Madras Native Infantry.

In every district there are jail and treasury guards, besides the reserves. These are furnished by the police on average pay of Rs. 7 per man per mensem. In each district there are some 250 men so employed, or altogether 5,000 or 6,000 men. Pensioners would do this duty as well, if not better; and the pension, Rs. 4 per mensem, or Rs. 20,000 monthly, would be saved. The collectors and tahsildars' peons—a numerous body—should be pensioners.

This body of trained pensioners in time of need could be largely increased.

Colonel L. W. Beck, Commandant 20th Madras N. I.

If reserve men are employed in the police, the latter force would be rendered inefficient whenever the reserves were called out.

Colonel W. A. Gib, Commandant 23th Madras Native Infantry.

I would not mix up the reserve with the police; and, besides, how would their police duties be carried out while they were training? The more they would be employed by Government in posts under the civil administration the better; but would Government spare their services annually for a month's drill?

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

If the preference were given to reserve men in filling up the posts of peons, &c., in civil departments, it might encourage men to volunteer for the reserve. They would probably not find it difficult to obtain substitutes to act for them while they were at their month's annual training.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Pensioners are now employed in various appointments on the railway, as night watchers, as chowkidars, and in some of the dāk bungalows; and I see no reason why the second class of reserve should not be so employed. Police superintendents would not care to employ men of 25 years' service.

Major E. Faunce, Commanding 14th Madras Native Infantry.

I would not employ pensioners liable to be embodied in the general police force, as when called out the police administration of the country would suffer; but pensioners liable to be called out should exclusively be employed as post and telegraph delivery peons, village and municipal police, as chuprassis, moochis, and such other small posts. These posts are of such a nature, that the temporary withdrawal of the men, though it would cause temporary inconvenience, would be in no way really detrimental to the civil administration of the country; and it would, bearing in mind the sensitiveness to any change that has to be kept prominently in view in all changes, be wise, while requiring pensioners to give a small return for the stipend they receive, to give them something on the other hand. The posts to be reserved for such men should be clearly prescribed by Government, which should, and could easily, take effective measures to ensure no others being appointed. Men so employed should receive their pension as at present and two-thirds of the present pay of the civil incumbents of the posts. Every one knows how much Natives of India hold by Government appointments; what consequence it gives them, and indeed all their relations, in their native villages; and I feel sure that, accompanied by some such scheme, the change I propose would not only be popular itself, but would greatly assist recruiting, which it much wants.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

If the reserve men could be employed in the police, one of the strongest objections to the formation of the reserve would be overcome; and I believe such an arrangement to be possible.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

I think men in the reserve might take the guards over jails, treasuries, escorts of prisoners, and such like duties.

They might be made drill masters of police at the head-quarters of districts.

They might fill the places of peons or chuprassis in all Government offices, jails, &c. Their pay might be the same as these people now receive; and when they become unfitted for such duties they might then fall back on their pensions; or even if any additional pay was granted them, I think a very large amount would be saved by Government.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

I am of opinion that there should be a local battalion in each district, composed half of men of the first reserve and half of men culstid in the locality, or in any other proportion as time and experience may teach. These battalions to be well armed and properly trained, having a commandant or 2nd-in-command and an adjutant—officers retired or seconded from the regular army. The guarding of civil treasuries, jails, and all police duties should be performed by the men of these battalions. On the outbreak of hostilities, as many of these local battalions as are required should be sent to the seat of war to garrison forts and posts, and keep open the line of communication between the fighting line and the base of operations, their place in the district being taken by the men of the second reserve.

Colonel W. Bannerman, 4th
Bombay Rifles.

As a rule, the reserve men should not be employed in the police or in other posts under the civil administration. A system of this kind would tend to make them lose sight of their identity with the reserve. The absence of the men to attend the annual training course would probably cause inconvenience to the public service; and in cases where their temporary absence for this duty from their present employment resulted in any pecuniary disadvantage to themselves, the men would become discontented.

Col. G. W. Hanson, Commanding
9th Bombay N. I.

Vide answer 13.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

It would be an additional inducement to join the reserve if they could get service in the police; but this arrangement would materially interfere with police duties when the men were suddenly called away. I hardly think therefore this is feasible. Good men might with advantage be employed in many posts under the civil administration.

Colonel R. Mallabr, Commandant
13th Bombay Native Infantry.

The difficulty in employing these men in the police to any great extent is the necessity of withdrawing them from that force at a time they might be most wanted. They might be, however, employed as drill masters at the head-quarters of police districts, and with the advantage that enrolled policemen would not be withdrawn from their legitimate duties. I would have all posts of chuprassi, peon, and others in the police, revenue, and judicial offices reserved exclusively for these men. In case of popular disturbance others might be found to fill their places temporarily.

Such a system would probably have a good effect on our recruiting. Indeed it would do more than this, as while so employed they would receive the emoluments which are now received by the civilian; and as his pension or reserve pay would be in abeyance wholly or in part, a very material and direct saving would be effected.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

There would be this objection to employing the reserve in the police, that in the event of war that force would find itself denuded of some of its best-disciplined men at a time when it should be in its most efficient state. It is well known that, when the Government has its hands full elsewhere, advantage is then taken by the discontented to create disturbance. Besides this, it would be highly inconvenient to the police having a number of its men taken from its ranks each year, for one month, when the training would be taking place. Regarding civil employment to the men of the reserve, it would be highly desirable that they should have, if possible, a prior claim to such; but at the same time it would be necessary to ensure the man's return to his appointment when his services with the army were dispensed with. Otherwise they would naturally feel that they had been unjustly treated; and that would have a very bad effect.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

Vide answer 17.

Colonel J. Fairbrother, Commanding
22nd Bombay Native Infantry.

I would keep the Native army, police, and inhabitants of the country as separate and distinct as possible. I consider it would be a great mistake to employ any men in the police who was likely afterwards to be called upon to serve with the regular Native army, for many reasons. I may mention one or two. First, if the reserve was called out, the police force would be reduced; second, the reserve men who were with the police would be likely to import into the army, many new ideas they are better without; third, they would have become too familiar with the inhabitants of the country. But if a plan could be adopted of getting young men of good family to serve ten, twelve, or fifteen years in the regular army, and then transferring their services to the police—or, in other words, make the only door open into the police service, railway as well as district and municipal, for Native officers, as well as for non-commissioned officers and men, be through the Native army—to serve a certain number of years to complete their time for pensions, both services would benefit, the army would have much younger soldiers, and the police would receive trained men.

Lieut.-Col. O. V. Tanner, Commanding
29th Bombay N. I.

I think some might be employed in the police, with advantage to that body and without detriment to the regular army.

24. Where should the reserve man undergo his annual training?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

If possible at the head-quarters of his late regiment; otherwise at the military station nearest his home.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

Under the system I propose, no annual training would be required. When called up, he would at once proceed to the head-quarter station of his regiment, and rejoin his company.

All the British officers of a Native regiment should be intimately acquainted with every portion of the area from which they recruit, every town and village, its resources, and every particular that might be useful in military operations; and they should be known throughout their district, and be invested with powers for enlistment, registration, and calling up reserve men, without working through the civil district officer. Commandants should also be district pension paymasters.

Colonel T. Boisragon, Com-
manding 30th Punjab N. I.

At whatever place fixed on as the head-quarter centre of the regi-
ment.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

At the district recruiting depôt, should there be one; otherwise at
the nearest cantonment.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

At the depôt centre, which would presumably be formed either at the
head-quarters of a division or district, where they could be exercised
with regular troops during the latter part of their training.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal N. I.

At the regimental depôt, which in most cases would be nearer his
home than any other military station.

Lieutenant-Colonel P. Harris,
Commanding 11th Native In-
fantry.

As before stated (No. 21), at the stations nearest to the homes of the
reserve men. District circles allotted to each training centre is a matter
of detail, which could easily be determined hereafter.

Lieutenant-Colonel L. H. Wil-
liams, 14th Sikhs.

Also at the head-quarters of their regiments.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

The reserve man might receive his training with the fixed head-quar-
ters of his regiment.

Lieutenant-Colonel R. J.
Bogers, Comdg. 20th P. N. I.

Military head-quarters of divisions and districts.

Lieutenant-Colonel F. B. Nor-
man, Comdg. 24th P. N. I.

As a rule, at the nearest military station:

Lieutenant-Colonel J. Hud-
son, Commanding 28th P. N. I.

At some central stations, as described in my reply to question No. 22.

Lieutenant-Colonel G. C. Row-
croft, 35th Native Infantry.

See answer 22.

Lieut.-Col. F. M. Armstrong,
Comdg. 45th (Battray's Sikhs) N. I.

At the head-quarter station of his district.

Major R. S. Robertson, 4th
N. I., Offg. Asst. Adjt.-Genl.,
Allahabad Divn.

With the battalion, which is stationed at the fixed head-quarters.

Major R. A. Wauchop, 14th
Sikhs.

At the fixed head-quarters of the regiment or regimental depôt.

Major A. C. W. Crookshank,
32nd Pioneers.

See answer to question 22. At the reserve centre under existing
conditions; at the regimental head-quarters under the hoped-for
arrangements.

Captain H. D. Hutchinson,
40th Native Infantry.

At the head-quarters of each division.

Colonel R. Sale Hill, Command-
ing 1st Goorkhas (L. I.)

At the head-quarters of the regiment.

Major A. Battye, 2nd Goorkhas.

With his own regiment, if it is quartered in or near his province;
otherwise with the nearest regiment, provided no one regiment had more
than 250 reserve men to train.

Major F. F. Rowcroft, 4th
Goorkhas.

Fide answer 17.

Colonel R. Blair, 3rd Native
Infantry.

At the head-quarters of his regiment.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

I have replied to this in answer to question 21; the third line, inva-
lids, at the depôt of the second line, or reserve of first line, or battalion.

Lieutenant-Colonel F. H. Jen-
kins, Commanding Corps of
Guides.

With their regiments, because it is essential to keep up regimental
feeling in the reserve. Soldiers are worth nothing unless they have this
feeling.

Lieutenant-Colonel J. J. Bos-
well, Commanding 2nd Sikhs.

At the nearest military station.

Lieutenant-Colonel R. R.
Chaubers, Commanding 6th P. I.

Fide answer 16.

Major A. G. Ross, Commanding 1st Sikha.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Colonel W. A. Gib, Commandant 25th Madras N. I.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

Lieutenant-Colonel P. A. Carnegy, 39th Madras N. I.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Brig.-Genl. H. F. Brooke, Adjt.-Genl., Bombay Army.

Brig.-Genl. A. B. Little, Comdt. 25th Bombay N. (Light) Infantry.

Col. S. Edwardes, Comdg. 2nd (Prince of Wales Own) Grenadier Regiment Bombay N. I.

Colonel W. Banerman, 4th Bombay Rifles.

Colonel G. W. Hanson, Commanding 9th Bombay N. I.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

Colonel R. Mallaby, Comdt. 13th Bombay Native Infantry.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

Colonel A. Carnegy, 21st Bombay Native Infantry.

Lieut.-Col. O. V. Tanner, Comdt. 23rd Bombay Native Infantry.

At one or more central points of district.

With his battalion, if anywhere.

Vide answer 17.

At the military head-quarters of the districts in which the reserve men are residing.

At the nearest large military station.

The man of the first reserve at the head-quarters of his regiment. The man of the second reserve at the station which might be the depôt of his reserve regiment or battalion.

Fixed regimental head-quarters.

With the regiment quartered at the station nearest his home where there is an ordnance magazine or depôt. No special staff for instruction purposes would be required, nor for ensuring orders reaching the men at other times. In Madras pensioners are paid monthly in arrears by "officers in charge of pensioners," who can at all times communicate with them.

At the reserve depôts.

At the depôt.

With the local battalion of his district.

At the head-quarter station of the nearest divisional or brigade command.

Vide answer 18.

With their original regiments, where more interest and care would be taken with them than under strangers.

At the chief military station of the recruiting district: *vide* answer 21.

At certain stations in proximity to where the men reside.

Vide answer 17.

At the head-quarters of the depôt battalion if in the regimental district.

25. Would the reserve system be popular with the Native army?

Colonel J. Doran, Commanding 27th Punjab N. I.

I have no means of judging exactly, but I think it would be.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I think it would; but it would depend greatly upon the way in which it was worked.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

I am of opinion that, with the class-regiment system as the organization, it would be extremely popular. The opening out of canals has increased the value of land and of labor so much, that service in the army, with the difficulties of getting leave at the proper season of sowing and reaping, is not popular; and service in the reserve would be extremely popular.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Very much so, if confined to pensioners.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Yes; provided terms were offered somewhat similar to those suggested in answer 18, or other inducements equally liberal were held out to the men.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal N. I.

With agriculturists particularly so, as after a few years' service they could return home with the prospect of pension.

Lieut.-Col. P. Harris, Commanding 11th N. I.

Yes; so far as I can judge, I think it would.

Lieutenant-Colonel L. H. Williams, Commanding 14th Sikhs.

Yes; I am sure it would be.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

Yes; I think it would. I imagine any system which would allow a man to see a great deal of his home would be popular with a Native soldier; and should think that the difficulty would be to get a man to stop with the colors and undergo the hard training of the present day.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

I believe it would, as the pensions, though liberal, are barely sufficient (in the lower grades), and would be rendered so by the Rs. 2 per mensem proposed.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

That would depend upon several points. Considering that most of our sepoys are of the agricultural class, I am of opinion that one of the chief inducements for a man to join the reserve would be that he would be enabled to look after the cultivation of his land. I would therefore suggest that the training should take place at a time when there is no work in the fields, and should be fixed by the officer commanding the division or district after communicating with the civil authorities. Again, I think it would be unpopular if the men had to go for the training to a long distance from their homes.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

I believe it would. The great thing would be to make the assemblies for annual training as little inconvenient to the men as possible, and I do not think much difficulty would be experienced in doing this.

Lieutenant-Colonel G. C. Rowcroft, Commanding 35th N. I.

Very popular (see answer 16).

Lieut.-Col. F. M. Armstrong, Comdg. 45th (Rattray's Sikhs) N. I.

Very popular, I think.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I cannot reply decidedly, having had no opportunity of hearing expression of Native opinion on this point—a most important one; but I am inclined to think that if the system was fully understood by the Native soldier, and sufficient inducements to enter the reserve held out, it would be popular.

Major R. A. Wanchope, 14th Sikhs.

I think it would be so popular, as soon as it was understood that the number of men desirous of entering our army would be immensely increased. At the same time it would be necessary to make some arrangement other than is at present in existence with foreign States, from which many of our soldiers are enlisted. As it now is, if one of our men deserts, or refuses to rejoin from leave, or even if he is under sentence of penal servitude and escapes, and he belongs to the Puttiala State, no assistance is given for his recovery; and the Commissioner of Umballa says that none will be given us.

A reason for my saying that the reserve system would be popular is that any man, being tired of the daily monotonous life that a sepoy must in time find it, or his presence being required at his home, can leave at any period of his service with a small annuity and the prospect of a pension.

Major A. C. W. Crookshank, 82nd Pioneers.

No, not with the mass; and were it enforced, it would, I think, greatly check recruiting. It would suit a few, i.e., the restless vagabonds (excellent soldiers forsooth), who enlist for as long as the fancy takes them; the north-western frontier tribes, who merely want to learn a profession of arms; landowners, who merely want to amass a few rupees to enable them to purchase a plough and oxen; men with a certainty of local employ; and Native officers and non-commissioned officers whose reserve pay would support them in the *otium cum dig.* of paid idleness. But the mass seek the certainty of provision for life which the army offers, with its honorable and comparatively easy career.

Goorkhas, for instance, hold on to the last to the pay which the State grants; and so does the Madrassi for the sake of his "sisters and his cousins and his aunts." In fact, I believe that army employment in Madras is creating a military caste, who look to it solely for a livelihood; and if so, a reserve system would break up a very loyal element, and the best form of loyalty—that of obligation.

Captain H. D. Hutchinson, 40th Native Infantry.

So far as I can ascertain, yes.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

I feel sure it would be popular with Goorkhas. They have, as a rule, got such large families, and are so impecunious, that the pay would be a great inducement to them.

Major A. Batty, 2nd Goorkhas.

Yes, if left perfectly optional with the men whether they should remain with the colors as long as they do now, or join the reserve.

Major F. F. Rowcroft, 4th Goorkhas.

vide answer 17.

Colonel R. Blair, 3rd N. I.

I think it would, as men would be glad to revisit their comrades.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

I think the reserve system would be most popular with the Native army and population of India generally, if it were carried out judiciously.

Lieutenant-Colonel F. H. Jen-
kins, Commanding Corps of
Guides.

It would be altogether an experiment; but I think it would be popular if the reserve pay is not too small. I think I should begin by forming a reserve for a certain number of regiments.

Lieutenant-Colonel J. J. Bos-
well, Commanding 2nd Sikhs.

I am informed by Natives to whom I have explained the system that it would be popular, and am of the same opinion myself. Should it be adopted, and be found to be a success, and when the active reserve shall have reached some dimensions, it may be possible to reduce the Native army.

Lieutenant-Colonel B. R.
Chambers, Commanding 6th P. I.

Fide answer 16.

Major A. G. Ross, Command-
ing 1st Sikhs.

I cannot say, as I do not know what grasp they have of it.

Colonel A. Jenkins, Com-
mandant 2nd Madras Native
Infantry.

The reserve system would be unpopular with the Native army. What makes Government service so popular now is its continuous pay and permanency.

Colonel G. Hearn, Command-
ing 15th Madras N. I.

Fide answer 17.

Colonel L. W. Buck, Command-
ant 20th Madras Native Infan-
try.

No; recruits are drawn from the agricultural classes, and enlist to escape the hardships and uncertainties attending that kind of life. Three or four years' service with a regiment would make them unwilling to return to it.

Colonel W. A. Gib, Command-
ant 25th Madras N. I.

I do not think so.

Lieutenant-Colonel F. H. Tyr-
rell, 37th Madras Native Infantry.

I really cannot tell. Natives generally take a long time to get accustomed to anything new. Our sepoys in the Madras army look forward when they enlist to spending their lives with the colors; and many of them have no home but the regimental lines.

Lieutenant-Colonel P. A. Car-
negy, 39th Madras Native Infan-
try.

I think a reserve system would be popular after a time, but certainly not the English system.

Major E. Faunce, Commanding
14th Madras Native Infantry.

A simple reserve system, with pension deferred, or no pension at all, most decidedly not. The system I propose of making men passing to the pension list in the ordinary way, the reserve, if fit for garrison duty, and giving them certain advantages, would, I think, be very popular.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

Judging from the large numbers of men who now succeed in leaving the Native army, under the operations of the invaliding pension rule, after 15 years' service, it would appear that any arrangement which would allow of men returning to their homes with a small monthly stipend after that length of service would be popular.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

No; I do not think the reserve system would be popular with the Native army, for when a man has to leave his old regiment, he wishes to give up the life of a soldier altogether, and to live on what pension he may be granted quietly at his own home. But I think many men would gladly take the appointments such as I have mentioned in my answer No. 23.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

I think it would, if the men are not compelled to go back to their homes too soon after enlistment. It should be left to them to choose. It is with this object, and to avoid making any radical change, the effects of which cannot be foreseen, that I advocate the first reserve men being locally employed.

Colonel G. W. Hanson, Com-
manding 9th Bombay N. I.

Fide answer 18.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

I have hesitation in giving an opinion on this point; so much would depend upon the terms.

Compulsory service in the reserve would not be popular, as it would increase the period for pension.

Colonel R. Mallaby, Command-
ant 13th Bombay Native Infan-
try.

I do not like the reserve system, and I do not believe it would be popular; though the suggestion I have made in reply to question 23 might make it less unpopular.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

I think it would; for it would ensure the man's getting a certain amount of pay each month, small though it would be, for a number of years, with only the remote chance of his having to leave his own home.

Colonel A. Carnegy, 21st Bom-
bay Native Infantry.

Fide answer 17.

Colonel J. Fairbrother, Com-
manding 22nd Bombay N. I.

If the pay was good, and little work, it would; but if the above conditions were reversed, it certainly would not.

Lieut.-Col. O. V. Tanner, Com-
manding 29th Bombay N. I.

I think it would be very.

26. Have you any suggestions to make regarding the Native army which would increase its efficiency while diminishing expenditure, or at least without adding to it?

Colonel J. Doran, Command-
ing 27th Punjab Native Infantry.

I am not prepared with any at present which would not lead to increased expenditure.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

I think the formation of district regiments, answers 10 and 24, would tend considerably towards efficiency and diminution of expense.

There would be no charges for recruiting, or for transport of sick-leave men and invalids (men discharged for physical unfitness or pensioned).

Long furloughs would be necessary. There would be no charges for transport if the leave men were called up for service. The leave men being close at hand, would all be available immediately. The men themselves would be saved heavy charges for railway transport for themselves and families.

The pay department might be reduced by the payment of all pensions being made over to regiments.

All office work and correspondence with regard to remittances would be obviated.

Recruiting would be much facilitated. Men would come forward much more readily.

The registration of recruits and all men trained to the use of arms, reserve men, &c., &c., would be managed by the British officers of regiments, and would save the civil officers much work, while being done much more satisfactorily.

The British officers would be able to call up the reserve men without delay or difficulty.

They would be thoroughly acquainted with all information of military value regarding their districts—a most important part of which would be thorough knowledge of all transport available.

I think there can be no doubt that the British officers of a regiment of Native infantry would be more profitably employed in the performance of duties such as I have described than in standing wearily, hour after hour, week after week, month after month, to watch firing at a target.

I do not ignore the value of superintending target practice as all other duties; but so much is required of the British officer in that respect, and so little allowed to the Native officer, that both are weary and heartsick.

I think a diminution of expenditure might also be attained without detriment by the abolition of the Normal School at Umballa, and the office of inspector of Native army schools. So many well-educated men are at all times available, who have passed through the different schools and colleges in India, that a special training school, where men are kept five years under instruction, appears unnecessary; and I look upon special inspection with regard to the educational progress of regiments as superfluous.

I should also like to say a few words with regard to the Military Account Department, which is intimately connected with the Native army, and a great power for good or evil.

It consists of a great number of very highly-paid officers with a perfect army of clerks. Its elaboration proceeds day by day; but alas! we see no progress. Time is wasted, and charges for stationery and postage are incurred in calling for useless certificates, and recording petty objections for sums not worth recovery; and more and more forms and returns are invented, while first principles are lost sight of.

Circle paymasters have been comparatively useless (as regards the Native army) for a long time. They were supposed to examine pay abstracts roughly only; and unfortunately they rarely objected to any sum they did not have to pay after correspondence. Pay examiners then got the abstracts, and statements of objections were issued by them, as above noted, which after correspondence had mostly to be withdrawn.

It will be seen that the duties of both paymasters and pay examiners have hitherto been very light, and much in inverse ratio to the sums charged to Government for their maintenance. Now, however, a new system has been devised by the Controller (*vide* his circular No. 45 of 1879) in which work for both examiner and regimental officer has been ensured, while the labor of the paymaster has been reduced to the mere issuing of a cheque. Pay for regiments is to be issued on estimate prepared about the 20th of the month. The same system of payment in arrears is maintained; but we are not allowed to take the exact sums we require. There will be a never-ending stream of objections flowing from the examiner, which will materially augment labor and correspondence without any benefit.

It appears to me that the audit of accounts might be much facilitated, and the expense very much reduced, if a military audit office were attached to the accounts department of each lieutenant-governorship, with a compiling office, if necessary, at Calcutta.

Commandants of Native regiments should be recognized as paymasters, which they really are, and pension paymasters, if district regiments should be formed. But in the latter case, Controller's Circular No. 451 of 1879 would have to be modified; the amount of records, returns, and accounts prescribed therein must surely be far in excess of requirements for sound practical work. If commandants of regiments were pension paymasters, a good clerk on Rs. 100 a month might suffice, instead of the establishment noted in paragraph 3 of said circular. As regards regiments, I see no necessity for monthly estimates and the issue of cheques from a circle pay office. The pay of a regiment amounts to a certain monthly sum; and treasury officers should be directed by the office of audit to pay such sum as might be demanded, within that limit, on the 1st of every month; excess requiring sanction. Other bills payable within the province could be provided for in the audit office, which would supersede the present pay office.

Under the present system there is great delay in the audit of accounts, which might be obviated if the audit office were close at hand. I have just received notice of an objection to some three rupees on account of camels employed in carriage of tents for the moveable column in January 1878; the

audit office objecting to the organization of companies, and wishing to count up men detached, to make them so many full companies. If the objection should be upheld, it will hardly be worth the time and labor expended.

If any comment on the articles of war comes within the scope of this enquiry, I would suggest the advisability of the power of discharge and reduction without trial being restored to commandants, and of reduction to a lower grade of non-commissioned officer being sanctioned.

I think the commandant's oath before every trial might also be advantageously dispensed with.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Reduce the amount of paper work; let the commands of regiments be held for only five years; give fuller powers to commanding officers over all ranks for reduction and dismissal (excepting of the Native commissioned officer) without intervention of courts-martial; let Rs. 15 of a subadar's pay be "command allowance," subject to forfeiture by order of commanding officer if he is careless and negligent in looking after his company (or half-company, as it will be under the proposed organization of eight Native officers to four companies); do away with the grade of jemadar; let all escorts and garrison orderlies and guards be furnished, as proposed, by the reserves; and, I would add, deduct one-quarter of every man's pay when he goes on furlough; but I fear this can scarcely now be done without causing a general dissatisfaction. It was a very false step giving men full pay while on furlough. The army never expected it, and were more than surprised when the order was issued. The Native quite understood the custom of "wages for work." The concession has not made the army any more popular; but is, I am sure, looked upon in the light of a "weakness," especially when it is well known that officers (British) are put on reduced allowances, while no difference is made to the Native. The Rs. 30 "kit-money" was a just and popular measure, as was the good-conduct pay rules. Pension rules require thorough remodelling as proposed. Clothing should be made up regimentally and supplied in bulk. It could be made up on the scale sanctioned in clothing rules, and there would be no bills for "alterations and fitting." Part-worn clothing should not be supplied to Native officers, and he should not be put to the indignity also of drawing "compensation for dearness of provisions," as though he were expected to live as a sepoy on Rs. 3-8 a month. Native officers' quarters are quite unsuitable for Native gentlemen of direct commission. If "class regiments" is to be the future organization, quarters like the present staff sergeants' bungalows, to accommodate two Native officers in each, with a general Native officers' mess-room.

Colonel E. Dandridge, Commanding 40th Native Infantry.

The plan sketched at the commencement of this paper would, if carried out, I believe, greatly increase the efficiency of the army and without adding to its expenditure. It precludes also the expense of a reserve.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

This is a very difficult question to answer, and opens a field of suggestions. There are no doubt many means by which the efficiency of the Native army would be increased, as regards regiments individually and collectively; but whether it would be practicable to carry them out

in safety, considering the vast extent of country our troops are called upon to garrison, is a question for the Government to decide. But I will only state what I consider might be a means of increasing efficiency with, I believe, a considerable reduction of expenditure, without offering an opinion on the practicability of application of the measure.

If the strength of each regiment were increased, and the number of regiments reduced, the result, I believe as far as those regiments were individually or collectively concerned, would be an increase of efficiency with a saving of expenditure. To explain. There are 60 regiments of Native infantry, including the Punjab Frontier Force, and exclusive of others, in the Bengal army. Each of these numbers at present 680 men, or a total of 40,800 bayonets, exclusive of Native commissioned officers, drummers, &c. If this number were reduced to 40 regiments in lieu of 60, each battalion would muster 1,020 men, including non-commissioned officers, but exclusive, as before, of Native commissioned officers and drummers.

I have little doubt that regiments of this strength would be more effective than as at present constituted, while the saving to Government would be as follows:—

	Rs.	A.	P.
Pay of non-effective staff per regiment per month	...	17	8 0
Do. hospital establishment	...	90	0 0
Do. bazaar	...	43	8 0
Do. educational	...	45	0 0
Band allowance	...	100	0 0
Mess	...	100	0 0
Adjutant's staff pay	...	250	0 0
Quartermaster's	...	150	0 0
School shed allowance	...	20	0 0
Butts and targets	...	4	0 0
Total per regiment	...	820	0 0
			20
Total for 20 regiments	...	16,400	0 0
			12
or per annum	...	1,96,800	0 0

nearly two lakhs per annum.

But this is not all. A considerable saving would also be effected by the reduction in the ranks of Native commissioned officers and drummers. Thus the present establishment of these ranks at 16 of each for 60 regiments is 960 of each.

If the proposed 40 regiments were to consist of ten companies each, with 20 Native commissioned officers and 20 drummers per regiment, the total of each of these ranks would be 800. In other words, the State would save the pay of 160 Native commissioned officers and 160 drummers.

The European officers of the 20 regiments thus broken up could be distributed among the remaining 40 regiments, and help to raise the number of British officers in these to the complement proposed in answer to question 4.

As in the event of the present complement of British officers being at all largely increased, the system of promotion no doubt would become a regimental one, and the staff allowance of wing commanders, &c., probably cease, the saving that would be effected in the staff pay of the commandants, wing commanders, and wing officers has not been taken into consideration in these calculations, as such saving would be absorbed in raising the pay of officers of all ranks from staff corps to old local rates, which would then have to be done.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

My answer to this is embodied in my foregoing answers; but, for convenience of reference, the proposals therein made are here recapitulated:—

(1) Increase of peace strength of service battalions in men and officers.

(2) Decrease of number of battalions maintained in peace.

(3) Adoption of a regimental system.

Every four battalions of the Native army to be broken up and formed into one regiment of a depôt and two service battalions; the latter capable of expansion into four battalions in war time by calling up reserves.

(4) Localization of recruiting depôts.

(5) Separation of the Bengal and Punjab armies.

(6) The adoption of a class battalion system and total suppression of mixed corps.

Lieutenant-Colonel P. Harris,
Commanding 11th Native
Infantry.

The fundamental, and as I believe fatal, error we are pursuing in the Native army is the vain endeavour to advance the professional position and importance of Native officers, whilst reducing to a most dangerous extent the only element in it that would be *thoroughly* reliable in an emergency, and when opposed (as they have never yet been) to a trained enemy with arms of precision. I refer to European officers; I do not say that there are no good and reliable Native officers. I have at least one in my own regiment as good as any of my European officers; but these are the exceptions, and are so few as hardly to be taken into account. Brave to a degree, and capable of overcoming great difficulties when led by skilful commanders in whom they have implicit confidence, yet I do not believe it to be in the nature of an Asiatic when in an emergency, at a supreme moment, so to speak, to have that self-reliance and cool judgment so essential to success. In short, I would advocate more European officers; and if the expense cannot be met in any other way, I would reduce the emoluments of the present extravagantly-paid Native officer. In expressing these opinions, I know I am opposing the views of Lord Napier and other distinguished officers; but as I am distinctly asked for suggestions that would in my opinion advance the efficiency of the army, I have felt bound to do so. The subject is one, however, that cannot be fully discussed in a paper of this nature, though I shall be glad, if required, to give further reasons for my opinion on another occasion.

Lieutenant-Colonel H. Williams,
14th Sikhs.

If localized as suggested by me, a better class of recruits would be obtainable, the efficiency of the regiment would be increased by furlough being unnecessary, while expenditure would be diminished by there being no relief.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

Any suggestions I might make would, I am afraid, only increase expenditure and not decrease it.

Lieutenant-Colonel R. G.
Rogers, Commanding 20th Punjab Native Infantry.

None without increase of expenditure, as the sepoy is now worse off than most of the menials in his officer's employ. To render the army popular, to pay good men to enter it, and to increase its efficiency, Government must raise the pay of the sepoy and non-commissioned officer, and be far more liberal as regards clothing and compensation for the same when destroyed on active service. While the pay of the commissioned officers has been raised, and the period of service for good-conduct pay for the sepoy reduced, the non-commissioned grades alone remain unbenefited—the grades on which so much onerous, and often unpleasant, work falls, and on which the efficiency of the army so much depends.

Lieutenant-Colonel F. B.
Norman, Commanding 24th
Punjab Native Infantry.

I think some plan should be devised of rewarding, by the bestowal of an honorary title and a medal, Native officers of *all* grades who may have done good service, but which was not of a nature to gain admission to the Order of British India or the Order of Merit. The last Native officers admitted to the Order of British India entered the service in 1850. Now there are a good many subadars who entered the service as subadars in 1857, and whose chance of gaining admission to the

Order of British India is very remote. Again jemadars are but rarely admitted to this order. I would suggest either that a new order should be created, or that the rules of the Order of British India should be altered, and a third class made, which should be bestowed on all subadars after 20 years in that grade, and on jemadars who may have performed some specially good service. The new order not to carry any increase of pay. (See answer to question 28.)

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

My previous answers state my views on the subject of increased efficiency. Expenditure would not be added to, as the heavy charges of the invalid establishment would be barely reduced by the reserve system, and by gratuities on discharge, instead of pensions for life; the latter of course being still retained for wounds and injuries and special cases only, not for the mass.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry.

It is very difficult to gain increased efficiency without increased outlay. More European officers and more sepoy to each battalion would, I believe, prove a saving in the end, and a good reserve would allow of a reduction in the number of regiments. The pay of none of the different grades will bear cutting down. Already the better class of men hesitate to enlist. Service for pension might be lengthened. The pension establishment is much overgrown; but again pension is the chief inducement for men to enlist. Establish a good reserve; reduce any class of regiments unfit for service *anywhere*; keeping the remainder in the most efficient state by adding largely to the number of sepoy, and increase the number of European officers.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I venture to think that if the staff corps was abolished, superfluous field officers got rid of by liberal inducements to retire, and the grades so distributed that there would not be an undue proportion of senior officers with regiments, a considerable saving would be effected, and the efficiency of the army increased. The officers of three or four regiments might then be amalgamated and placed on one seniority list for promotion; but this cannot be effected without doing away with the staff corps, and getting rid of the officers of the old Indian army.

Major E. A. Wauchops, 14th Sikhs.

A commanding officer should have the power of discharging a soldier without the assistance of a medical board. Many men without becoming subject to trial by court-martial may be very indifferent soldiers.

Major A. C. W. Crookshank, 32nd Pioneers.

Yes, as follows:—

1st.—Divide the Native army into four instead of three, *viz.*, Madras, Bombay, Bengal, and Punjab, and thus diminish the areas of relief and the distances.

2nd.—Reduce the frequency of reliefs; there is no reason why (except for great sickness) a regiment should not remain four years at a station; this would be welcomed, as relief puts the Native soldiers to expense.

3rd.—Increase the strength of the regiments generally throughout the empire, reducing a few to make up the strength of the others, thus saving on the officers and non-commissioned officers:

4th.—Abolish all invalid pensions, except for illnesses or wounds contracted on foreign service, and substitute a voluntary pension after 21 years' service. Under 21 years, give gratuities of 3, 6, 9, and 12 months' pay for 4, 8, 12, and 16 years' service.

5th.—Abolish compensation for dearness of provisions and ration the Native army regimentally, thus doing in peace what you have to do in war.

6th.—Abolish the hutting money and build lines, not on public works department principles, to last till the millennium, but on the principle now in force, limiting the public works department to a fixed grant.

7th.—Abolish wing and quartermaster's contract allowance, and supply what is needful. The contract system is objectionable, and puts commanding officers in a very false position when having to order what they consider necessary, but which officers consider an interference with their perquisites.

8th.—At least a lakh per annum might be saved by allowing commanding officers to give selected and good men furlough on *half pay* for 12, 18, or 24 months—a boon which would be appreciated. If limited to 20 men per regiment, that saving would be effected in Bengal alone.

9th.—Economy also would result from the reduction in camp-followers suggested in answer to question 36.

Captain H. D. Hutchinson, 40th Native Infantry.

The suggestions I have already made would undoubtedly increase efficiency, and reduce, or at all events not increase, expenditure. Briefly to recapitulate them, they are—

(1) To have companies always instructed, commanded, paid, &c., by European officers.

(2) To have four European officers, each commanding a double company in peace, and eight, each commanding a single company in war.

(3) To have a system of linked battalions, by which when a regiment is ordered on service it can proceed at once at full war strength of seasoned soldiers, while its linked battalion devotes itself to recruiting.

(4) To have a reserve system, by which at no greater cost than at present there would be a first reserve of men between the ages of 36 and 41 ready and fit for active service anywhere, and a second reserve of men between 41 and 46 well able to carry on ordinary garrison duties which would set free the regular troops.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

(i) I consider that a system similar to the one I have sketched for the Goorkha battalion, keeping classes and races entirely separate, might be adopted with advantage for the whole Native army; battalions being linked and reserves established. I consider that the Native army should be maintained in the highest state of efficiency, and with the most improved weapons and equipment, so as to be prepared to act against European foes, if necessary. Its numbers might be reduced greatly, so as to be completely overawed by the English regiments maintained in India; and it might be relieved by the military police of many duties it now performs, in the way of ordinary garrison duties at unimportant stations, escorts, commissariat guards, &c.

(ii) When Government has decided the strength which, for purposes of safety and defence, it is necessary to maintain the Native army at, I am of opinion that, in order to render the said army efficient, it is expedient to increase the number of British officers; and that fewer regiments fully officered and so constituted as to present a complete war strength, with a power of expansion and renewing by well-constituted sedentary battalions and reserves, would be infinitely more effective than a much larger number of insufficiently officered and weak battalions on the present system; and it appears to me that there now exist many battalions which are never employed on active service.

(iii) Officers should be appointed direct from England to the Native army on a similar system to the one in vogue in former years, and be posted to battalions, and their promotion be regulated in linked battalions by seniority conditional on efficiency.

I note some of the many objections to, and disadvantages of, the present system of officering the army:—

(a) That the staff corps system of promotion tends to unduly augment the senior grades.

(b) That with the dual system which pertains in regiments, of army rank and regimental seniority, the latter taking precedence of the former, heart-burnings, frictions, and differences amongst officers must arise, which are most prejudicial to efficiency, zeal, and discipline.

(c) Field officers in regimental employ are called upon to perform duties not appropriate to their rank and tending to bring the same into contempt.

(d) A regiment is not, as in former days, a home to a young officer, as appointments being regulated by army patronage, he is constantly looking out to better himself. Moreover, there being so few officers with regiments, social establishments, such as messes, &c., suffer. The tendency of young officers in consequence is to secure houses for themselves by early marriages, which is not advantageous to regimental welfare, as it tends to weaken the ties and interest they take in their regiment and men by substituting stronger interests.

(e) In addition to above, all officers' prospects are unsettled, their regimental promotion insecure, and expectations of advantageous furlough rules and retiring pensions being promulgated always in view. The sooner these points are definitely decided the better.

(f) The system of obtaining officers from British regiments is detrimental to those corps; and I have not in my regimental experience been able to discover any benefits derived from the system. On the contrary, young officers received from British regiments have, as a rule, prejudices against serving with Natives to eradicate; and even then a lingering feeling seems to remain with many, that service in a Native regiment was to them a *pis aller*.

(g) The pension list of the Native army must be a heavy and increasing charge; but I believe the reserve system would tend greatly to reduce this item of army expense.

Major A. Batty, 2nd Goorkhas.

The Native army being already as regards *British officers* and *sepoys* too weak for efficiency, I can think of no possible scheme by which efficiency could be increased *without adding to the expenditure*. But I would strongly urge the following changes in the Native commissioned and non-commissioned grades, *viz.*—

		Rs.	A.	P.
<i>Reduce—</i>				
2 Subadars at Rs. 100 ...	...	200	0	0
1 Subadar " " 80 ...	...	80	0	0
1 Jemadar " " 50 ...	...	50	0	0
<hr/>				
Total 4 Native officers	...	330	0	0
<i>Add—</i>				
1 Havildar-major and drill havildar	...	15	0	0
1 Quartermaster havildar	...	15	0	0
1 Musketry havildar	...	15	0	0
Increase pay of 40 havildars from Rs. 14 to Rs. 15	...	40	0	0
8 Naiks at Rs. 12	...	96	0	0
Allowance to 8 lance naiks of Re. 1 each	...	8	0	0
Staff allowances, havildar-major and drill havildar Rs. 7 instead of Rs. 5, increase	...	2	0	0
8 Pay havildars, Rs. 7 instead of 5, increase of Rs. 2 each	...	16	0	0
Quartermaster havildar	...	7	0	0
Musketry havildar	...	5	0	0
One of the naiks to be an assistant to the musketry havildar on an allowance of	...	2	8	0

<i>Add for line-boys as under—</i>	Rs.
20 Boys at Rs. 2	40
20 " " 3	60
2 of the 40 to be naiks on Rs. 2 extra each	4
2 of the 40 to be lance naiks or Re. 1 extra each	2
1 of the 40 to be havildar or Rs. 3 extra...	3
	— 109 0 0
Grand total	... 330 8 0
Obtained by reduction of 4 Native officers	... 330 0 0
Excess expenditure ... ..	... 0 8 0

Major F. F. Rowcroft, 4th
Goorkhas.

I confess I do not see how the *true* efficiency of the Native army can be increased without increased expense. I am of opinion that the non-commissioned officers are not sufficiently paid. It seems to me that it was a great misfortune, and an unaccountable error, that the non-commissioned officers were quite overlooked when the increased advantages regarding increase of pay to the Native commissioned officers, and good-conduct pay to the sepoy, and bounty to recruits, were given in Government order of 1st January 1877. The non-commissioned officers of the Native army felt very much being overlooked in the increase of pay. There is no doubt they are the backbone of the army, and the majority of officers of the army are of opinion they are underpaid.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

Yes, several.

(a) One pay havildar to two companies ample, giving him six rupees (at present five for one) a month staff pay.

(b) Dispense with color havildars at two rupees each per mensem; for one per company (eight) would be a saving of 16 rupees a month in each corps.

(c) *Furlough* pay, as before, to the whole army; a man to have only up to two months (commanding officers, or privilege) on full, *i.e.* working, pay. The granting of the latter, whether on duty or leave, was a grave political error. Whether it can safely be abolished now is perhaps doubtful, and might be dangerous. It is always injudicious ever to make any differences between the Native army and their British officers and commanders, as far as it can be avoided.

(d) Hospital stoppages, as obtaining under Her Majesty's British army; no differences should ever be made between the British and Native soldier, comrades in arms, if avoidable.

(e) Give back to officers commanding regiments the powers they had before of being able to reduce non-commissioned officers to the ranks, or dismiss them and buglers and sepoy, from the service without summary trial. *Allow havildars to be reduced to naiks*, as is now the ruling in this respect for sergeants to corporals in Her Majesty's British army by the last Army Bill.

Lieutenant-Colonel F. H.
Jenkins, Commanding Corps of
Guides.

I think a great deal more attention should be paid to the physical training of the men, especially of the recruits and young soldiers. There should be a gymnasium in every regiment, and I can say from experience that it need not cost the State anything. I do not recommend, however, that Native regiments should be placed under the gymnastic department. This would throw more paper work on the officers and lead to no useful result. The inspecting general could tell, by having the recruits stripped at the annual inspection, whether any attention had been paid to this matter or not.

I am also of opinion that the army is wanting in marching power, especially on rough ground. This is a fault that might be remedied without expense, if the officers had more time to train the men. The officers have too much writing under the present system, and too much attention is paid to making a good show in the returns. There is a good example of this in the musketry. On paper the army shoots very well, but recent experience in Afghanistan and at the Cape leads to the opposite conclusion.

Lieutenant-Colonel J. J.
Boswell, Commanding 2nd Sikhs.

Revise the pension rules, which in their present form encourage malingering after a man has put in thirteen or fourteen years' service. I strongly advocate a graduated scale after fifteen years' service (*vide* answer No. 18).

Government might effect a considerable saving by making it compulsory for Native regiments executing all ordinary repairs to their lines. Extraordinary repairs, such as renewal of timber to roofs, should be borne by the State. At present large sums are squandered by the department public works in annual repairs which with little trouble might be effected by the Native soldier.

Major R. B. P. P. Campbell,
Corps of Guides.

Yes; I have a most important suggestion to make, which I firmly believe would not only materially increase the efficiency of the Native army, but add considerably to its numerical strength; and thus give Government the reserve they want—not of raw recruits or old pensioners, but of trained soldiers in the prime of life. And I also believe, and hope to be able to prove, that Government can gain these advantages without eventually adding to present expenditure.

These results could not be obtained if the system of reserves in England or the Continent is followed.

I can only put forward the outline of my scheme, as I am not sufficiently an actuary to be able to calculate exactly the yearly receipts and expenditure of Government. I call it *my scheme*, as I have never known or heard of any one else having proposed such a one before.

Government would be obliged to make an outlay at the beginning; but I think within two years the expenditure on the army would be very little more than it is now, with the advantage of having a large reserve of trained soldiers ready at hand.

My scheme is as follows:—

1st.—Put aside the idea of a separate reserve for the Native army altogether,

2nd.—Have none but trained soldiers, in the prime of life, under the present regimental system.

3rd.—To have this, every Native infantry regiment in the three presidencies must be raised nearly 43 per cent. above present strength, or 285 sepoy per regiment; and that strength kept up in peace and war, but during peace only 500 sepoy per regiment to be serving on full pay with their colors, the remaining 385 on half-pay, plus good-conduct pay, on furlough at their homes. At the end of every year the men on furlough should rejoin and a similar number take their place.

There are 143 regiments of Native infantry in the three presidencies, making a total of 86,280 sepoy, all serving on full pay. Increasing the strength of the army by 285 sepoy per regiment, the total would be 127,035 sepoy; but having 385 sepoy per regiment on furlough on half-pay, or a total of 55,055 sepoy (*which would actually be the army reserve*), there would remain a balance of only 71,980 sepoy on full pay.

The cost of the present 86,280 sepoy at Rs. 7 per mensem, or Rs. 84 per annum, is Rs. 72,47,520, without having any sort of reserve at all.

The proposed annual cost would be as follows:—

					Rs.
71,980 sepoy	@	84 =	...	...	60,46,320
55,055 "	@	42 =	...	...	23,12,310
<hr/>					
1,27,035 total sepoy	=	...	...	...	83,58,630

that is, an increase over present expenditure of Rs. 11,11,110 per annum, *i.e.*, Rs. 20 and a fraction per annum for each reserve sepoy, but with the advantage of having a reserve of 55,055 sepoy—trained soldiers—always at hand, which is considerably more than half the strength of the present army.

If Government consider such a strong reserve unnecessary, they could decrease numbers by only recruiting every regiment up to present war strength, *viz.*, 800 sepoy, and having 300 on furlough on half-pay, plus good-conduct pay. If so, the annual cost would be—

					Rs.
71,980 sepoy	@	84 =	...	...	60,46,320
42,900 "	@	42 =	...	...	18,01,800
<hr/>					
1,14,880 total sepoy	=	...	...	...	78,48,120

or Rs. 6,00,600 over present expenditure for a trained reserve of 42,900 sepoy, or Rs. 14 per annum for each reserve sepoy.

Should this scale be also thought too expensive, increase every regiment only by 200 sepoy, equal to 700 per regiment, and have 200 on half-pay, *viz.*:—

					Rs.
71,980 sepoy	@	84 =	...	...	60,46,320
23,600 "	@	42 =	...	...	12,01,200
<hr/>					
100,580 total sepoy	=	...	...	...	72,47,520

that is, a trained reserve of 23,600 sepoy for the same money expended on the present army.

The present system of furlough for the Native army must be altered, to make it imperative that Government have the option of placing on furlough as many men *over three years' service* as political necessity may demand (always leaving 500 sepoy per regiment) on half-pay, plus good-conduct pay.

At present one-sixth of strength, nearly 17 per cent. of sepoy, are allowed furlough during the hot season. This leaves 500 sepoy per regiment at head-quarters for carrying on all duties in peace time during the hot weather.

If the system I propose was adopted, and a proper check put upon furnishing orderlies, civil guards, &c., there would be no reason why that number of sepoy should not carry on all duties during peace throughout the year, as any regiment would be capable of being raised to full strength—all trained soldiers—within a fortnight or three weeks at the utmost.

Regiments on the frontier might have 50 more men on full pay for outpost duties, &c.; and at any station where the duty on the Native soldier, owing to sickness or any other cause, was hard, the requisite number of men could be called in from half-pay to ease off work.

Adding so many men to the strength of a regiment would cause a block in promotion and be apt to make men hopeless of advancement. I therefore propose that during peace the Native adjutant,

drill havildar, and drill naik be made supernumeraries of their rank, and that others be promoted in their places. On the war establishment I would increase the Native officers by two jemadars, and the non-commissioned ranks by eight havildars and eight naiks.

The above is the outline of my scheme, which, if adopted by Government, would give them a strong, serviceable, and contented army, always ready for immediate service.

Now for details. The strength of a Native battalion in peace or war should be 1,000 men of all ranks, as a regiment of that strength is quite capable of undergoing a prolonged campaign. Even if it had the misfortune to lose 400 men, there would still remain an efficient body of 600 fighting men to work with. Therefore every regiment should be ordered to recruit up to 885 sepoy.

The Native adjutant, drill havildar, and drill naik should be made supernumeraries of their rank, and others promoted in their places.

Every recruit hereafter enlisted should be made to understand that he is liable to be placed on half-pay, plus good-conduct pay, after three years' service, whenever Government pleases; and that when on half-pay he is as much under the control of his commanding officer as at head-quarters.

Soldiers now serving in the ranks having been accustomed to receive full pay on furlough, would have cause for grumbling if summarily put on half-pay. Therefore it must be explained to them that, owing to the exigencies of the service, they must in future go on half-pay, plus good-conduct pay in their turn, but should receive full pay for the period of furlough they are entitled to under present rules, and half-pay, plus good-conduct pay, for the remainder of the year; and any leave over a month they may require on urgent private affairs beyond their furlough must in future be on half-pay, plus good-conduct pay.

The pay of all men, whether on full or half pay, to be drawn in one muster roll, as at present; and commanding officers should have full discretion in allowing men who have performed their drill and musketry course for the year to exchange from full to half-pay, provided the number on full pay was not exceeded beyond the order for the year.

Natives are very fond of being at their homes; and as this system would really give the men more opportunities of visiting their homes, and for longer periods than the present one, I feel assured it will become very popular among them. If properly put before them, they cannot fail to see that the proposed scheme gives them far more liberty, and that consequently they cannot expect so much pay. The less work, the less pay; but still they belong to the regiment, and have always something to look forward to. I do not anticipate any difficulty on this head. Of course, at first there will be men in every regiment who will wish to hold out for what they have been accustomed to get; but when they come to realize the advantages of the scheme, the objectors will be found to be very few. Commanding officers must be allowed full discretion in dealing with intractable men.

The service of soldiers on half-pay to count towards pension.

Under the existing rules for pension, a Native soldier is very much tempted to malingering after completing 15 years' service, as he then becomes entitled to a pension of Rs. 4 a month, and no prospect is held out to him of any increase by serving longer. The system I propose would, I feel confident, be a great preventive to malingering, as a soldier of 15 years' service would probably be able to live at his home two years out of four on Rs. 6-8 a month, *i.e.*, his half-pay, plus Rs. 3 good-conduct pay, and would think twice before throwing up such an advantage for the sake of being always at his home on Rs. 4 a month. Thus Government would gain by getting many more years of real honest service out of a man before he was finally invalidated.

The arms, clothing, and equipment to be kept at the head-quarters of regiments, as at present, for men on furlough.

Native officers and non-commissioned officers to have furlough on full pay, as under present rules; they being required to help in training, the regiment would not be improved if liable to be placed on half-pay at their homes every other year.

In conclusion, I beg to draw attention to the fact that Government have already incurred most of the expenses in raising the strength of the army by the recent augmentation, and many regiments are now very nearly up to the strength I recommend; so if my scheme meets with approval, *now* is the time for Government to act upon it.

The above scheme could not be made applicable to cavalry, as the men could not be placed on half-pay and also be expected to feed their horses and keep up syces and ponies.

Government have already adopted the best plan for strengthening a cavalry regiment ordered on service by attaching an intact squadron of another regiment to it, as was done on the occasion of the 9th Bengal Cavalry being ordered to Malta.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I think the efficiency of the Native army would be greatly increased if the officers and men had more opportunities of habituating themselves to sudden and rapid marches. I therefore suggest that such duties as were prior to 1860 performed by the troops, but now performed by the police, should be again performed by the Native army, such as the guarding of treasure, Government property, and jails, escorting treasure, ordnance, and commissariat stores, and the maintenance of order at outstations by detached out-posts.

Such employment, especially that of detachments and treasure escorts, would accustom officers and men to duties they would be called upon to perform in time of war,—would give them habits of thought and aptness in meeting and overcoming difficulties, give the officers opportunities of acting while young on their own judgment and responsibility, and would restore opportunities, now never existing, for the British officers to become acquainted and on terms of friendship with Native gentlemen and people of the country.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

Increase of efficiency cannot well be attained without increased expenditure. This question opens out so large a field for speculation, that the limited time at my disposal for going through these papers will

not admit of my furnishing any suggestions as to how the army could be improved while diminishing its expenditure.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

I am asked if I can suggest anything which would increase the efficiency of the Native army.

I cannot. I believe the Native army is as perfect as it can be made. As regards the men and system, I do not think anything can be done to better it; the regiments are good in physique, smart, intelligent, fit for a campaign, faithful and willing. If any regiment is not so, it is the fault of the European officers.

Doubtless some European officers are old and feeble. This may not add to the efficiency of regiments, but the cause should not be used against the system of the army. I might here mention as a cause why many old officers will not take the bonus, *viz.*, the loss of Lord Clive's Fund to the widow. If Government were pleased to grant Lord Clive's Fund with the bonus, many old officers would go at once.

As regards the diminution of expenditure, double rice-money north of the Kistna may be discontinued to those hereafter enlisted, as long as the regiments are within the limits of the Madras presidency.

If a regiment proceeds or is stationed beyond the presidency frontier without their families, then double rice-money must be granted; but should the families be with the men, then only should the single rate be drawn.

To men hereafter enlisted, I would do away with pensions to heirs of men who die on foreign service, and grant pensions only to the heirs of men who die on service or in a newly-acquired territory.

In my answers, I have stated exactly what I believe from my experience as adjutant, as superintendent of police, and commandant. I have not consulted any one on the subject, or taken the opinion of any one. What is now submitted is my opinion, founded on the experience of my service.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I have no such suggestions to make. The pay of the privates is as low as it could be, and that of the non-commissioned too low. Everything appears to me to be on the most economical footing possible.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Efficiency would be increased materially with less guard duty. The continued *night work* tells upon the strongest constitution after a time, and is one cause of many men being invalided in what should be the prime of life.

I think if clothed more appropriately for a tropical climate, such as that of South India, where there is scarcely any cold weather, the men would be more efficient. The present cloth and serge uniform is quite unsuited for orientals, and for climates such as we have.

My opinion is that commandants should have power given them to deprive a man of good-conduct pay by one stripe at a time for repeated acts of misconduct. At present a man confined in the defaulter room or solitary cells forfeits pay and good-conduct pay for those days only, but for two or three regimental defaults within a specified time he should forfeit one stripe for six months, or even a year.

I think the new system of education in a Native regiment is too expensive for what is required. The old one went very nearly far enough. If the parents wished for higher education for their children, they paid for it and not the State.

I believe the early marriages the men contract is one reason the Native army of Madras is not so efficient as it might be. The wife's relations come upon the husband in addition to his own; and he has to maintain them, as he cannot shake them off. I think before enlistment every candidate should be distinctly informed that he will not receive permission to marry until he has completed five years' service. He could then please himself about enlisting. The State would benefit greatly by the arrangement, and the man would too.

Major E. Faunce, 14th Madras Native Infantry.

As I have before said, the Native soldier is a man with very strong feelings; a man distrustful of strangers, whom you must know well to command efficiently; a man with a strong spirit of *esprit de corps*. I know it is the fashion even with some officers of Native regiments to think not; but in my regimental service I have made it a point, while exacting duty stringently, to know and be on friendly terms with my men; and I know that they do cherish a strong *esprit de corps* indeed, though I grieve to say it. I believe it to be the honest truth that in many regiments *esprit de corps*—that soul of the military body—while yet exercising its good influence amongst the Native ranks, has nearly died out amongst the European. I would give many instances of both assertions; indeed gave some in my draft, but omit them, as this paper is already getting too long. For one instance of its existence in the Native ranks, see reply 5.

To what is this to be attributed?

To the constant changes since 1865 in the officers of a regiment, the introduction of strangers from other regiments, from departments, from civil employ, perhaps only a few months' senior, to fill vacancies officers who had served some time in the regiment might reasonably have looked for. I

know that the reduction of twelve regiments made it necessary to find employment for the officers thereof, and also that a system of regimental promotion is being inaugurated by His Excellency the present Commander-in-Chief; but I speak of what has been, and of its results. An officer had been for many years on the staff under the old system. Under the new he had to vacate in 1871. He went on leave in India, and obtained while on leave furlough to Europe. After this had been gazetted, a full vacancy as wing commander arose in a regiment. A field officer of that regiment had been acting for a considerable time as wing commander: was he confirmed? No; the former staff officer, a total stranger to the regiment, who had not served with a regiment for many years, who was gazetted for furlough to Europe, who had not even any regimental uniform when he joined, was given the full vacancy. He joined, remained a few weeks (less than a month I think), and then proceeded to England, taking with him half the allowances, the field officer of the regiment being then again put in to act for him. He drew these half allowances for the period of his furlough, and did not re-join, being provided with another staff appointment. With what heart can men work under such circumstances? Native soldiers with all their faults appreciate justice, even if it be but bare justice, untempered with consideration or mercy. To give them that, you must know each man, his antecedents; the why and wherefore his case is favorably or otherwise put before you. If it is given against him, even where he feels justice is on his side, he will contentedly accept the decision of an officer he knows, where he would be a discontented, unwilling soldier if a strange officer had so dealt with him. In the one case he knows his officer, and therefore knows he has, though perhaps mistakenly, yet honestly and of himself, come to an unbiassed decision. In the other, he thinks the strange officer, not knowing him or the other party, has been influenced by the superior rank of the other party, or of the person who represented the case with a leaning to him. The Native soldier attaches himself warmly to his officers if they are allowed to remain long enough with the regiment for him to know them, and for them to show that they are not only taskmasters exacting a certain tale, but take an interest in him. The first two most essential measures for increasing the efficiency of the Native army is that officers should be permanently posted to a regiment and rise in it, no one being brought in except at the bottom, and in exceptional cases as commanding officer; that they should have no interests outside of it. At present, no sooner is there a vacancy than every one, European officers and Native ranks alike, speculates who is to get it; there should be no doubt. In the Madras army successive systems have been tried with each change in the command of the army. Some one system, even if it be the worst, should be laid down by Government and should be strictly followed. I cannot speak too strongly of the evil done by the lowering of the tone that has resulted from the uncertainty which has weighed heavily on the army for the last fourteen years. The harm done to the interior well-being, the harmony, the camaraderie, the brotherhood, that should exist in a regiment must have, and has, struck the most casual observers (witness the comments of the press); but no one that has not actually served in a regiment does know how little real harmony, how little real good-feeling, does exist, and how little the officers have in common in many a regiment, notwithstanding the stereotyped "yes" in successive annual inspection reports. Were officers able again, as of old, to look on their regiments as their homes, by force of long and intimate association to know each other, then the evil I deplore would disappear; and this is not a mere matter of sentiment, but one with which the efficiency of the army is vitally connected.

Again nearly the whole of the officers of the Madras army are too old for their respective positions. Of the 40 pucca adjutants, only 9 are subalterns.

In Madras the average service on 31st July of the permanent commandants of 31 regiments was 34.91 years: there were nine of and above 37 years' service. It is difficult to state correctly from Army List what is the average service of officers on appointment as commandants; but it cannot be less than 31, probably over 32, years. Such a period passed in India and in a subordinate position does not tend to make a man energetic. Where a younger man would take a pride in instructing his regiment in efforts to make it surpass others, many a man getting command as now at 31, 32 years' service, after the first gloss has come off his personal satisfaction at his new position, is content to sign his pay-bill and do just as little as will pass muster at the annual inspections at which the adjutant is at his elbow to answer the simplest questions. It is notorious throughout the service that there are commanding officers who, from age or constitutional causes, or habits, or incapacity, are quite unfit to be at the head of regiments. Such men do harm to regiments not only in their own time, but perpetuate it by praising men under them who may not deserve it, and who in consequence succeed in time to commands for which they are unfit. I would not limit the number of years an officer is to hold command of a regiment, but make all officers vacate regimental appointments of all kinds at 32 years' service.

There are adjutants and quartermasters who are majors; there are majors, wing officers; and it is a common thing to hear such say, in these or other words,—"*I shall never get a command even when I am toothless, bald, and imbecile!*" What interest can men of 20 to 24 years' service (there are such in Madras) take in their work, holding such positions and with such prospects? They look back regretfully to the days when as boys they commanded companies, and feel they had an interest in their work, some stake in the regiment, and a responsibility, which, small as it was, was such as was suited to their rank; and now they have not even that small share.

The pensions are too small to induce men to go; and the system of increasing the amount obtainable under the bonus scheme by so much for every year's service naturally defeats its object by inducing men to hang on "one year more."

The systematized practice of commandants spending the last two years of their service on furlough, or rather of drawing £360 a year command allowance for the last two years spent in England, should be stopped.

The powers of commanding officers as to summary punishments should be increased, and they should be encouraged to hold summary trials which custom with us practically prohibits. The following is cut from page 239 of the blue-book on the "Organization of the Native Army 1877":—

"37. I would here observe that commanding officers in Madras generally decline to avail themselves of the larger power given them by law since the mutiny, by which they can have summary trials on soldiers; and they continue to resort to the old practice of regular courts-martial. The

difference between Bengal and Madras in this respect is striking. In Madras in the years 1872, 1873, and 1874, out of 714 trials, only 10 were by the summary trial; in Bengal in the same period, out of 847 trials, all but 108 were summary; and in the Frontier Force there were but 8 summary trials out of 245. It is difficult to account for the disinclination to resort in cases of crime in Madras to what is here looked on as a valuable adjunct to discipline."

The reason is, I think, that commanding officers have not been encouraged by superior authority to resort to summary trials. That they do not do so is, of course, known; and the fact that their not doing so has not been remarked on by superior authority during the ten years since the Indian Articles of War came into force is naturally accepted as showing that they are not expected to. I look on the power as a valuable adjunct to discipline, but should hesitate to avail myself of it, except under special circumstances; for I should fully expect to be called on in an ordinary case to explain my departure from the usual practice. I remember a case in 1871 where a commanding officer did hold a summary trial and was found fault with by the brigadier-general commanding the district on whose staff I was, on the ground that the circumstances did not call for such summary action.

The powers of wing commanders as to summary punishments should be largely increased. They—majors, lieutenant-colonels, and even sometimes brevet colonels—have now much smaller powers than I had as commanding a company when an ensign of two years' service.

Commanding officers should be allowed unrestricted and unquestioned power of *selection* in the promotion of all grades, which, whatever the theory may be, is not the practice. A system of selection for the grades of jemadar and subadar, largely modified by seniority, has long been the rule with us; but it was practically promotion by seniority, especially from jemadar to subadar; for till lately it was with the greatest difficulty a commanding officer could get a man passed over, and to do so entail so much writing and so much explanation, frequently a petition (nominally strictly prohibited) to "report on," that many a commanding officer avoided it by recommending the senior man. If the grade of Native officer and the present system of appointment thereto are to be retained, a commanding officer should merely have to send in the name of the man he selects, and not be obliged, as now, to send in also the names of all those he proposes to pass over. It is not always easy to explain in a few words all the little facts which justify the opinion that a man of good character and faithful service, although fit for his grade of naik or havildar or jemadar, has not the qualifications necessary for a higher one. Were men to see that their commanding officers had the unquestioned power of rewarding and promoting them by selection (in all grades) for their efforts to make themselves, and maintain themselves, efficient, it would foster that spirit of emulation which is so desirable, and now so weak and wanting in vitality. A commanding officer's powers as to promotion, then, should be unrestricted in any way; his powers of summary punishment increased; for to command Native troops properly a man must have large powers. Was not this the secret of the success of the old irregular system? If he does not exercise them with discretion, he is unfit for the command of Native troops, and should be unhesitatingly removed.

Why should not havildars and naiks be called sergeants and corporals? In West Indian regiments negroes are. Why should not infantry regiments be called simply "Bengal or Madras infantry," as cavalry regiments are? These *seem* small, very small, matters, but they emphatically are not. Every soldier knows the force any honorably distinctive appellation, motto, device, nickname even, has. Will any one deny that "Native troops" is generally used slightly?

I venture to say that that has gone a long way towards making young men hesitate to enter the Indian army, and that the slighting feeling with which it is regarded by many would not have been so strong had that word "Native" never been used.

We have *color* havildar, *drill* havildar, havildar *major*: why half-English, half-not? Even the men with us are called privates, not sepoys: why the distinction in other ranks?

The more you make of a man, the more you foster his self-respect; the more he thinks of himself, the better man he is likely to be; and when a man "thinks something" of himself, he is at least on the road to being a smart soldier. What applies to individual men applies equally to a regiment.

Young officers should not pass into the Indian service through British regiments: it does them no good. They come to the Native regiment discontented with their lot and prejudiced against the service in which they are to pass their lives; they should, as before 1857, join at once on appointment to a commission the particular regiment to which they are posted, and not be collected together in one station.

I feel that I have written strongly and plainly in this reply, and perhaps in others. I do so under a strong sense of duty to the service to which I have the honor to belong, feeling that, having been *asked*, I should fail alike in my obligations to it and to the Government I serve did I not give expression to what are my real thoughts, which are in substance shared, I unhesitatingly affirm, by at least a large majority of regimental officers. It is with pain that I write as I have done of a service in which I have spent 25 years of my life; but these truths are now longer secrets of the service; it is no longer possible to *laver son linge sale chez soi*, and those that are most loyal to the service will recognize that its best interests require that the plain truth should be known to those who can apply the remedy.

The only grades who obtained no advantage while serving from the benefits granted to the Native army generally on 1st January 1877 are the most hardly worked—the havildars and naiks. It would be politic to apply a small portion of any savings made in reorganization to the increase of their pay from Rs. 14 and Rs. 12 respectively to Rs. 18 and 14. Only Rs. 244 per regiment per mensem would be required, even if there be no reduction in the number of those grades. At present a havildar, which rank is not reached till about 15, frequently more, years' service, receives only Rs. 4 more than a private of that service with three badges; a naik only Rs. 2 more. In former days this was compensated for by the all but certainty of promotion to the commissioned ranks, which certainly it is to be hoped is gone now.

The men marry too young, and have consequently from their very entry into the service a tribe of bangers-on and relations of sorts partly or wholly to support, or, what amounts to the same thing, who come to pay them long visits. Every effort is being made under the orders of His Excellency the Commander-in-Chief to mitigate the evil; and the men, who from custom and the force of caste

obligations are afraid to refuse to receive such people, secretly rejoice thereat; but there seems no good reason why it should not be a condition of future enlistments, that men are not to marry till after five years' service.

Troops should be more concentrated in large cantonments, and all single battalion stations that are not absolutely necessary abandoned. They are bad both for officers and men, as every one knows and admits. Regiments should not remain in any one quarter more than four years as an extreme limit. The period used to be three years, now it varies from five up even to ten (see reply 7). Regiments should march on relief, not move by rail.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

The present system of granting an invalid pension to Native soldiers after a service of fifteen years is most detrimental to efficiency, and very costly to the State, and should therefore be abolished. The evil results of this pension are two-fold; as, in the first place, the knowledge that men can be invalided, if they become inefficient, after 15 years' service, may tend to induce a certain laxity on the part of commanding officers in the selection of their recruits. And, in the second place, it leads to malingering among the men, who often begin one or even two years before they have attained the required service to prepare for invaliding by feigning illness, or endeavouring to prove their unfitness for further service by an assumed inability to perform their duty, which, if judiciously carried on, secures for them the co-operation of the commanding officer in their removal from the regiment. There does not appear any reason why the State should give a pension for so short a service as fifteen years, nor can it be admitted that a soldier who has failed to give the full amount of service has any claim on the State for a life-pension. The present system is, in fact, a premium on bad service, as a sepoy, unless recommended for the superior pension for specially good service, would only, at the expiration of 32 years with the colors, receive the same pension as the man who had left the army as an invalid 17 years previously. The fact that in the past four years 4,361 of all ranks in the Bombay army have obtained invalid pensions, and only 806 have been pensioned on the completion of the full period, shows to what an extent this method of quitting military service is availed of. A further proof of this is found in the fact that nearly 13,000 men, or three-fourths of the whole army, are under 15 years' service.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

I have no suggestion to offer, for the simple reason that I think extra expense must attend any increase of efficiency.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

The suggestions contained in the previous answer would, in my opinion, increase the efficiency of the Native army without adding to its expense.

The formation of local battalions would permit of a decrease in the numbers of the regular army throughout India. By the substitution of a regiment or brigade list promotion in the place of the staff corps, the necessity of employing highly-paid officers for performing the subordinate duties in regiments would be got rid of; also a very great saving in the item of colonel's allowance would be saved. All officers obtaining employment in the civil branches of the administration should be seconded for two years; and if permanently employed, should be placed on a separate list; their pay, pension, and rank being regulated by the rules and debited to the accounts of their departments.

A saving in expense and an increase of efficiency would be obtained also by the compulsory retirement from the regular army of officers who fail to obtain to a certain rank in a given time; these officers being employed in local battalions or in other posts under Government.

The surplus of field officers now in the army might with advantage be employed in this manner.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native
Infantry.

The one thing required to complete the efficiency of the Native army is, I think, an increase in the number of the European officers.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

I append some suggestions* drawn up by the 2nd-in-command of this regiment, with my remarks attached.

I do not wholly coincide with that scheme, but send it as it professes to be economical; though I question this.

Colonel R. Mallaby, Command-
ant 13th Bombay Native In-
fantry.

I consider the present system of clothing the men utterly unsuited to the duties they have to perform, whether in peace or war; and I believe it is one of the causes which send comparatively young men to the pension roll. I would do away with all cloth clothing except the overcoats, and substitute a strong *khaki* drill coat, something after the fashion of a loose Norfolk coat, Zouave trousers and *puttees*.

The provision of these might be left to commanding officers according to sealed patterns, or Government might enter into contracts with such establishments as the Muir or Elgin Mills at Cawnpore. An entire suit of such clothing, including the *puttees*, can, as I have ascertained,

* See appendix XXXVIII.

be obtained from the former establishment for rupees five and annas ten, and I am satisfied for less under an arrangement with Government. I sent up to His Excellency General Warre a pattern, such as I propose, and it has met with his approval; and should the Commission think it worth while, I could submit the pattern for their inspection.

My proposition would involve the abolition of the clothing agency and its establishment, as the cloth clothing for the European troops could be transmitted direct from Pimlico, through the commissariat department, to the commanding officers of regiments.

If my suggestion is accepted, the expense of a clothing agency, and the loss by exchange for cloth clothing of the Native army would be saved, and Native industry encouraged; and a portion of this saving devoted to any additional expense in providing an entire suit of drill *khaki* clothing yearly.

The Native soldier is called upon to serve in climates where the difference of temperature within two or three days may be from 40° to 50°; he would be able to put any amount of under-clothing under the dress I propose for him, or he may have little or nothing under it, so as to suit these changes.

I think the introduction of two pioneers per company would be a very valuable addition to a regiment. These men should go through the same course as the sapper; he should be by trade a carpenter, smith, leather worker, stone mason, or rope maker. These men would be invaluable on service, for entrenching, building, or bridge making. The labor being found by the regiment, their equipments might be taken from the engineer park, and the expense on that score could not be considered as additional to the general expenditure of the army. On passing the sapper's course, I would make these men lance naiks to place them above the privates; and they might be employed in working in and superintending regimental workshops.

I would advocate the introduction of regimental workshops, which with the above aid would be conducted in regiments without any expense to the State.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

I would give power to the commanding officer to dismiss any man whom he considered incorrigibly bad, or one whom, when young, he did not think would turn out an efficient soldier. He should also have power to reduce a non-commissioned officer one grade without the intervention of a court-martial, and his powers of punishment should generally be increased. I think also that the number of Native officers in a regiment might safely be reduced without the least detriment to its efficiency. Should the four double-company system be adopted, I should have only five subadars and five jemadars, instead of eight of each class as now; one of the former being subadar-major, and one of the latter jemadar adjutant.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

I beg to attach a small pamphlet* published by me in 1873 while holding the appointment of assistant adjutant-general at the headquarters of the Bombay army.

Since that time I have commanded the 21st Native Infantry or Marine Battalion for a period of five years; and the only alteration my more intimate acquaintance with the working of a Native infantry regiment leads me to suggest is the retention of the Native adjutant, whose presence I now consider absolutely necessary in a corps.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Not without adding to expenditure. The present equipment might be changed with advantage, and brown leather belts introduced; also a short rifle and sword bayonet and short rifle drill adopted in place of the long, the latter being too rigid for the Natives of India. The first-named admits of more freedom of action.

Lieut.-Col. O. V. Tanner,
Comdg. 29th Bombay N. I.

Decrease Native officers to one per company, and increase European officers.

27. Would there be any advantage in changing the titles of Native commissioned officers from "subadars" and "jemadars" to Native captains and lieutenants?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

None that I can see.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

None whatever that I am aware of. On the contrary, I think it would be disadvantageous.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

I propose to do away with the grade of jemadar. The British officers (*vide* answer 4) would be the captain (even though he may be a lieutenant in the army), and the subadar might be called his lieutenant. I daresay it would flatter the subadar; but I am not sure it would not lead him to imagine his pay was going to be increased to keep up the dignity of the rank.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I think it would be a pity to throw aside the old time-honored designation of subadar and jemadar.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

No; no advantage whatever that I can see. On the contrary, I am of opinion that it would only tend to confusion to change their present designations.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal N. I.

No! If anything, the change would be for the worse.

Lieutenant-Colonel P. Harris, Commanding 11th N. I.

None whatever. At most it would be but a change in name, and not at all an appropriate one.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

No; I think the present titles most suitable.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I see no advantage in altering the present titles of the commissioned grades.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

None; any such change would be appreciated by few. All Native commissioned officers should however, if in uniform, be saluted by European as by Native soldiers.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I consider the change proposed most undesirable. The titles suggested are, I think, meaningless and very clumsy. They would convey no idea to the Native mind, and it would be a long while before the proposed titles would come into popular use. At present, every villager knows that the titles of subadar and jemadar carry respect and pay; and this is of great use in recruiting.

Lieutenant-Colonel J. Hudson, Commanding 23rd Punjab Native Infantry.

I do not think there would be any advantage in changing the titles of Native commissioned officers from those which have existed for so many years.

Those titles have become honored, not only in the Native army, but amongst the peoples of India. It should be borne in mind that all changes which are not justified by actual expediency are unwise in India, especially so in the Native army.

Lieutenant-Colonel G. C. Loweroft, 35th Native Infantry.

No advantage; and in my opinion would be an useless change, creative of confusion, and doing away with time-honored and well-known designations, understood by the home friends and relatives of the Native soldiers, to whom the new titles would be mere sounds only.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Battray's Sikhs) N. I.

No; the present titles are recognized and bear weight in the men's homes, giving them standing and position when on leave or retired.

Major R. S. Robertson, 4th N. I., Offg. Assistant Adjutant-General, Allahabad Division.

I do not see any advantage in the proposed change.

Major R. A. Wauchope, 14th Sikhs.

I think not.

Major A. C. W. Crookshank, 32nd Pioneers.

No; certainly not. The change would not be appreciated or understood by the Natives, who are conservative enough to prefer the titles which are understood and respected by their kinsfolk. *Subadar*, the former title of the governor of a province, and *jemadar*, the holder of a rank or place, convey a tangible meaning to the common Native mind where Native captain and Native lieutenant would be meaningless; moreover, the Native would never use the affix *Native*. It would be *subadar captain* and *jemadar lieutenant*, as the Native adjutant is now turned into *jemadar adjutant*. Moreover, it might create inconvenience at times where the Native captain might consider himself superior to the British sub-lieutenant. I would leave well alone.

Captain H. D. Hutchinson, 40th Native Infantry.

None whatever.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

As I would only have one subadar with each company—*vide* answer 4, paragraph (b)—the titles of lieutenant and captain would be inappropriate; but they might be given as honorary titles, or on elimination of Native officers from regiments.

Major A. Batty, 2nd Goorkhas.

None whatever—English titles should be kept for English officers. Even the senior Native officer must always rank below the junior English lieutenant. Calling the former a captain would therefore be anomalous, to say the least of it. In some cases it might even prove prejudicial to a proper feeling of subordination on the part of a proud old Native *captain*.

Major F. F. Rowcroft, 4th
Goorkhas.

No particular advantage beyond that the change of names to Native captain and lieutenant would be very popular with the Native officers of the Indian army; but I am of opinion that it *would* be a *great* advantage to abolish the names and titles of *sepoy*, *naik*, and *havildar*, and substitute in their stead the names and titles of *private*, *corporal*, and *sergeant*. This would be a popular measure with the non-commissioned officers and rank and file of the Native army.

Colonel R. Blair, 3rd Native
Infantry.

No advantage in changing the present title of Native commissioned officers, but I think that havildars, naiks, and sepoys might with advantage be changed to sergeants, corporals, and privates. The title of captain to a subadar would apparently place him above an European officer of subaltern rank.

Colonel H. Boisragon, Com-
mandant 4th Sikhs.

Yes; I think, knowing what the Native is, it would be a political advantage terming subadars captains and jemadars lieutenants. But I would assuredly place them more under the power of their commanding officers than they are now by altering the terms of their pay, *viz.*, so much for his rank, the balance command pay, which he should only receive, or be deprived of, by his commanding officer, whether he could or would command his company properly. I would also undoubtedly make him pay for his own uniform and accoutrements, &c., &c. It should be beneath their dignity to receive compensation for dearness of food. The subadar-major should not receive his Rs. 50 a month staff unless actually performing the duty, and as obtains for every other rank excepting in one or two others which should also be abolished, excluding color havildars which are honorary.

Lieutenant-Colonel F. H.
Jenkins, Commanding Corps of
Guides.

I have never heard any Native officer express a wish to this effect. It seems entirely an English idea, as subadar, rissaldar, jemadar, are considered by the people to be honorable titles. Native captain and Native lieutenant are very awkward expressions. You could not use them in calling to a man, or even in speaking to him. Besides, I think the change would be exceedingly mischievous, because it would give rise to questions regarding the relative rank of British and Native officers.

Lieut.-Col. J. J. Boswell, Com-
manding 2nd Sikh Infantry.

I do not think there would.

Lieut.-Col. B. R. Chambers,
Commanding 6th Punjab Infy.

I don't think any advantage would be derived from the change.

Major R. B. P. P. Campbell,
Corps of Guides.

None whatever that I can see.

Major A. G. Ross, Command-
ing 1st Sikhs.

None whatever.

Colonel A. Jenkins, Command-
ant 2nd Madras Native Infantry.

The titles of subadar and jemadar are the most appropriate titles that can be given to Native officers; for Native officers are, and should be, subordinate to the most junior of British officers.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

There would be no advantage in changing the titles. On the contrary, I consider it preferable to keep a distinction of titles between the ranks of the European and Native commissioned officers in a regiment. I do not think that the Native commissioned officers would place much value on the change of titles, though at first perhaps the novelty of the change might please them.

Colonel L. W. Duck, Command-
ant 20th Madras N. I.

No advantage.

Colonel W. A. Gib, Command-
ant 25th Madras Native Infantry.

I can see no advantage in the suggested change; but perhaps the Native officers themselves might be gratified by it.

Lieutenant-Colonel F. H.
Tyrrell, 37th Madras Native
Infantry.

I see no advantage in the proposed change. Under the present system when a senior subadar ranks lower than a junior lieutenant, I think the proposed change would only breed awkwardness.

Lieutenant-Colonel P. A.
Carnegy, 39th Madras N. I.

I think not.

Major E. Faunce, Commanding
14th Madras Native Infantry.

No; the reasons given in previous reply (clause ix) for changing the titles of havildar and naik do not apply, there being, strictly speaking, no analogous positions to subadar and jemadar in a British regiment.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

I prefer the present designations.

Brigadier-General A. B. Little,
Commandant 25th Bombay Na-
tive Light Infantry.

No; I do not think any advantage would be derived by giving the English title. The old one would always be used.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

No advantage whatever, unless the whole of the Native army could be taught to speak and think in English. It would lead to great confusion of ideas as well as of appellations.

Colonel W. Bannerman, 4th Bombay Rifles.

I would retain the present titles of subadar and jemadar.

Colonel G. W. Hanson, Commanding 8th Bombay Native Infantry.

In my opinion the present titles of subadar and jemadar are preferable to those of Native captain and Native lieutenant, as the latter might lead to misunderstandings as regards the position of Native towards European officers.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

None that I know of.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

I can see no advantage whatever, nor do I think the Natives amongst themselves would use other than the present titles. I think the titles of the European and Native should be kept distinct. Absurd though it may appear, the ill-disposed might suggest that it was an attempt to christianize them.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

None whatever. These titles are well understood, and are respected by the Indian public, whereas the English titles would not be understood outside the army.

Colonel A. Carnegie, 21st Bombay Native Infantry.

I can see no advantage from such a change, except that I believe it would be appreciated by the Native officers themselves. The disadvantage, I fear, would be a not unlikely misunderstanding arising from a Native captain considering himself senior to a British lieutenant. I consider it of the utmost importance that no rank conferred on a Native officer should give him precedence in any way over even the most junior British officer.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

No; I consider there would be a great disadvantage. The pay, pension, and rank of the Native officers is quite sufficient for all the use they are, or even likely to be; besides which I believe great harm would be done by giving him the same rank, or even the name, as a European officer. "Captain Raminak Pandnak" and "Lieutenant Brown" would not do. Also a question of pay might arise, and cause great jealousy; if not positive mischief, and which the Native papers would be certain to take up. Captain Jones drawing according to one scale, and Captain Zabardust Khan according to another. The birth, education, ideas, surroundings, and general training when young of the Native officer are so very different to that of educated English gentlemen, that it would never answer to bring them together on an equality. If they are, the only result will be lowering the European, and failing to elevate the Asiatic; but I go further, and say my belief is such a course would make the Indian military service unpopular in England, and the loss to the service thus sustained would be considerably more than could or would be compensated for by the free admission of Natives. I look upon the Native officer as useless, except as an incentive to the non-commissioned officers and men to behave well and try to gain the prize of their service—namely, promotion to the commissioned grades.

Lieutenant-Colonel O. V. Tanner, Comdg. 29th Bombay N. I.

None whatever.

28. Could the practice of appointing young Native gentlemen of good family to direct commissions be employed to a greater extent than at present?

Colonel J. Doran, Commanding 47th Punjab Native Infantry.

I think not without giving rise to much disappointment and discontent, and as it is, it rests in a great measure with commanding officers to introduce few or many cadets into their regiments.

Colonel H. S. Obbard, Commanding 41st Bengal Native Infantry.

Yes, I would gradually increase the number to half, not more, and care should be taken that they are really of good family and fit for military service. Opinions of civil and military officers may vary much on these points.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

With British officers to command companies, and by doing away with the grade of jemadar, I should not recommend more than four out of the eight Native officers to be filled by direct commissions. In class regiments, even two out of eight would be sufficient to set examples to the rest as to what is expected of Native officers raised to the position of Native gentlemen. If there are to be the present number of eight subadars and eight jemadars kept up, and no British officers to command companies, then I would have the eight subadars held by direct commissions, and promotion from the ranks confined to the grade of jemadar.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

I am of opinion that the present system will not answer in the infantry. Before being appointed to a direct commission, the young gentleman should undergo at least two years' training at a military college, where he should also be required to learn English. Without much expense a military class might be formed at the college already existing at Benares, Agra, Delhi, &c.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

Yes, I consider that the system might be largely extended, but to do so the Native gentlemen so appointed should first be required to undergo a course of education in a military academy to be established for that purpose for a fixed period, the object being to teach them manly habits and give them a professional training.

Before receiving their commissions, they should be required to pass a qualifying examination. The academy should be a self-supporting institution.

But then there seems to me to arise a great difficulty. A young man of good family, intelligent, and with any aptitude for his profession, after passing through this academy with credit, received his commission, and is in due course gazetted to a regiment as a jemadar. In a few years, and while probably still a young man, he might rise to the highest grade in the Native commissioned rank, that of subadar-major. But what beyond this can he aspire to? And is it probable that a man of such qualifications would be satisfied to remain all the rest of his military career without hope of further advancement?

I fear he would soon become dissatisfied at the prospect, unless something else could be found for which his qualifications suited him, in Government employ, where he could hope, while capable of serving efficiently, to rise to something more than the subadar-majorship of a regiment on Rs. 150 per month, even with the prospective pension after 32 years' service, of Rs. 50, plus the brevet pay, *i.e.*, staff pay of subadar-major, or in all Rs. 100 per mensem.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

Undoubtedly; but unnecessary in the infantry, if commanding officers will promote more by merit and less by seniority. The commissioned grades are the prizes of the service; it would be a pity to reduce greatly the chances of attaining them.

Certainly not more than one-fifth of the Native officers in an infantry regiment should be direct commissioned officers.

Lieutenant-Colonel P. Harris,
Commanding 11th Native
Infantry.

No such direct appointments have been made in the 11th Bengal Infantry. The talukdars of Oudh do not appear to care for service in the army. It must not be forgotten that, if many such appointments were made, one of the chief inducements for men to enlist would be taken away, *viz.*, the hope of rising to the commissioned grade.

Lieutenant-Colonel L. H.
Williams, 14th Sikhs.

I do not approve of the system.

Lieutenant-Colonel R. J.
Walker, 17th Native Infantry.

As regards the commissioned grades, I would advocate the establishment of a military college or school in connection with one of the colleges now in existence, and that cadets of the college, who should be selected from respectable families, should obtain commissions direct as Native officers.

I would not fill up above one-fourth of the appointments in this way, as I think it would greatly dishearten the regiment. Many of the men of this corps are of very fair Rajpoot families, and it is for the sake of getting their commissions some day that they serve. Once let them think that it is almost impossible to rise from the ranks, and an inferior stamp of men will enlist.

Lieutenant-Colonel R. G.
Rogers, Commanding 20th Pun-
jab Native Infantry.

Not in the infantry. I have seen none to equal the good officer promoted for merit.

The practice gives rise to much discontent, and is unfair to the men of a regiment.

Moreover, the young Native gentlemen are apt to have far too great an idea of their importance, and are not so alive to their duties, &c., or amenable to discipline as the trained seasoned man who has honorably worked his way to his commission.

Lieutenant-Colonel F. B.
Norman, Commanding 24th
Punjab Native Infantry.

I don't think so; neither do I think it altogether desirable. I speak from experience. Formerly I was a great advocate for the practice. We have four men of this class in the 24th Punjab Native Infantry, *viz.*, two subadars and two jemadars. The two subadars entered the service as subadars in 1857. One, a Sikh, belongs to one of the best Sikh families; he is at present subadar-major of the regiment, and is contented. The other is a Malikdin Kheyl Afridi, and belongs to a family who have always been well-disposed to the British Government. He has always kept his company well together, and did good service during the second expedition into the Bazar Valley. As I have stated in my answer to question 26, the subadars of 1857 have but little chance of being admitted to the Order of British India.

The subadar knows this; he sees no prospect of any further advancement, and would gladly leave the service, but cannot afford to throw up 22 years' service.

Of the two jemadars, one, a Malikdin Kheyli Afridi, is son of Futteh Khan, who did good service in 1848 in the defence of Fort Attock under Lieutenant Herbert, and afterwards distinguished himself in the expedition against the Afridis of the Kohat Pass in February 1850. This jemadar joined the 24th Punjab Native Infantry as a jemadar in 1873; he is a particularly smart officer, and during the second expedition into the Bazar Valley rendered very important service to the political officer, and was mentioned in Lieutenant-General Maude's despatch. Since then he was mainly instrumental in apprehending a man of the regiment who had deserted carrying off two rifles. The jemadar constantly complains to me that he sees no prospect of advancement, and once asked for his discharge. I see no prospect of being able to promote him for some few years. I do not, however, think he cares so much about promotion to subadar as he would for some honorary title and a decoration.

The other jemadar is a Dogra of good family, and is an excellent young officer: he joined the regiment in 1875.

It will have been noticed that the only Native officers who have joined the regiment as Native officers since the mutiny are these two jemadars—one an Afridi, the other a Dogra. There is a company of each of these classes in the regiment, and advantage was taken of there being no havildar of these classes who could be promoted to jemadar. But if an attempt had been made to bring in a Sikh or a Punjabi Muhammadan gentleman in the same way, very great discontent would have been caused, owing to there being a number of havildars of these classes qualified for promotion.

To sum up, I am of opinion that very great discretion must be exercised in appointing young Native gentlemen to direct commissions; otherwise, great discontent will be caused among the senior non-commissioned officers. I am also of opinion that some better prospects than now exist should be held out to Native officers in view to making those who have gained their commissions early more contented.

Lieutenant-Colonel J. Hudson,
Commanding 23rd Punjab Native
Infantry.

Yes, I think it could; but I think more discrimination might be exercised by civil officers and others in recommending young Native gentlemen for enrolment on the Adjutant-General's list of candidates for commissions. The mere fact of a young Native gentleman having passed a series of successful examinations at Government colleges does not of itself constitute him a fit or likely person to become a Native officer.

The men we want as Native officers are those of a martial spirit, and men who have, if possible, family traditions of a military character to uphold and perpetuate.

Lieutenant-Colonel G. C.
Rowcroft, 35th Native Infantry.

This practice is better adapted for providing Native commissioned officers for cavalry than for infantry regiments, excepting those in which there are companies of Punjabis or border-men. I would not recommend the practice being too largely employed, as liable to damp the ardour and emulation of the non-commissioned ranks.

Lieutenant-Colonel F. M.
Armstrong, Commanding 45th
(Rattray's Sikhs) Native Infantry.

There are already I believe more candidates for direct commissions on the Adjutant-General's list than the demand for them. The introduction of a direct commission now and again is an advantage, and commanding officers can always obtain one now when required. To make the practice more general would be to deprive many trustworthy and deserving men who have steadily worked through the lower grades of the great prize of the service. Promotion to Native officer is the only inducement for men of any ability to enter and continue in the service.

Major R. S. Robertson, 4th
Native Infantry, Officiating Assistant
Adjutant-General, Allahabad
Division.

I think it could: a small percentage of vacancies in the commissioned grades might be filled up in this way, but its extensive introduction would create discontent.

Major R. A. Wauchope, 14th
Sikhs.

I think not in Sikh infantry regiments.

Major A. C. W. Crookshank,
32nd Pioneers.

Yes; I would suggest that every fourth vacancy be given direct; and I would couple it with the condition that the candidate bring with him fifty qualified recruits: this would give him a position in the regiment now wanting to direct nominees, and ensure a better status.

Captain H. D. Hutchinson,
40th Native Infantry.

I think it might. It should be a *sine qua non* that the candidates really are of good caste and influential family. A great deal must depend upon circumstances and upon commanding officers.

Major A. Batty, 2nd Goorkhas.

I think not. This system must interfere with promotion from the ranks already too slow, and should only be resorted to when

there is no non-commissioned officer in the regiment fit for promotion. The ranks of the Native army unlike to British line are oftener recruited from the more respectable classes. The sons of distinguished Native officers have been, and still are, only too proud to be enrolled in the ranks of the regiment in which their fathers have served all their lives and made their name. This should be encouraged, and direct commissions made the exception. We would be very glad if it was customary for the middle classes in England to take their places in the ranks of the British army. Why discourage the custom in India where it has always prevailed and answered so well.

I trust no direct commissions will be given in the 2nd Goorkhas.

Major F. F. Rowcroft, 4th Goorkhas.

I think it might be with regiments of Poorbeahs, or in those regiments in which there are a large number of Sikhs and Pathans; but this practice would be utterly unsuited to Goorkha regiments, because the stamp of men who would come under the denomination of "young Native gentlemen" would be men of high caste, such as Brahmins, Khuttries, or Khuss Thappas (spurious Thappas). The very men commanding officers of Goorkha regiments do their utmost to keep out of their regiments. High caste Native officers in Goorkha regiments would give an impetus to caste prejudices, an evil to be greatly deprecated.

Colonel R. Blair, 3rd Native Infantry.

I am not aware how the system has answered, as no one has been appointed to this regiment.

Colonel H. Boisragon, Commandant 4th Sikhs.

It could of course, but I do not deem it advisable politically, though undoubtedly it would improve corps. Without doubt, if it were not from a financial point of view, the Native officers would be best abolished entirely, there being no question that British officers are eminently superior in all respects, political and military; excepting the financial. The point to be considered is how much more difficult would have been our position during the mutiny of 1857 if the Native officers had proved themselves as good leaders as European officers. What has happened once may again. Subadars and jemadars were no more true to us than any of the other grades; their pensions did not make them more faithful to us.

Is it hoped that Native gentlemen, having a greater status in the country, more to lose and gain, would be more faithful to us? I doubt it in any over-pressure.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

No direct commissions have been given in the Guides, because we have had men of good family in the non-commissioned grades and in the ranks. Young Native gentlemen have often very unsoldier-like ideas. Some of them have told me that they considered it disgraceful to clean a horse, to stand sentry, or to learn the use of their weapons in a public place. It must be very hard for good soldiers to have people of this sort put over them. It might be useful to know the state of feeling in regiments when many direct commissions have been given.

Lieutenant-Colonel J. J. Foswell, Commanding 2nd Sikh Infantry.

I do not think it would be advisable to do so, as it would stop regimental promotion and thereby create discontent.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I do not think so, unless a military school was formed for young men of this class where they could go through a course of training and military education before joining the army. A military school of the sort would deter idle young men from seeking commissions, and it would add very much to the efficiency of Native officers who entered the army with direct commissions.

Major R. R. P. P. Campbell, Corps of Guides.

The power and influence of Native gentlemen among the peasantry has faded away, and consequently there are very few young men of good family fit for commanding soldiers. An Indian Addiscombe or Sandhurst is much required. I do not believe one quarter of those now appointed to commissions turn out well.

Major A. G. Ross, Commanding 1st Sikh Infantry.

I think so. Of course it is not popular with those who rise from the ranks and look forward to the commissions themselves. Many of the rolls of candidates for direct commissions, which I have seen, show young men awkward in manner, seemingly soft in habits, and more up in an inefficient kind of Persian than good at exercises and exposure and hard work. If young men of family can be got who are not dissipated, and who are willing to soldier, and who are active and given to out-door work and love arms, then I think they should be employed as much as possible.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I know no Native gentlemen of good family whose sons would enter the army in the subordinate positions of subadar and jemadar. Such persons as have expressed to me wishes that they could enter the army by direct commissions, though the sons of wealthy men, are not of better family than many now in the corps, and would, were they subadars or

jemadars, carry no more influence for good than their caste-men in such rank do now.

I therefore see no advantage in withdrawing the prizes of the commissioned ranks from the Native ranks of a regiment to grant those commissions to unknown and untried men. On the contrary, I feel it might lead to the great disadvantage of the regiment and of the State.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

No such appointments have ever been made in the Madras army. There are very few of the class desired that could be obtained for appointment to direct commissions in the Native army, and I think it would be found that young men of this class, who have been brought up in ease and idleness in their own houses, would be so elated by being placed in such positions, that their example would be more conducive to evil than good in the regiment; and their want of training for military duties would render them useless in their rank as Native officers. I am not sure that men of this class could be depended upon in time of mutiny or insurrection.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

Not feasible in Madras; there are no men, of the required stamp in existence; even if there were, I do not think they would be an improvement on our present Native officers.

The Native officers in Madras regiments are quite intelligent enough, and are well suited to the interior economy. The present men have been all their lives in the regiment, and the ancestors of many have been a century in the service.

In Native regiments *nothing can go on* without the knowledge of the present Native officers; the Native officers are bound to Government in many ways—in ways which young gentlemen would not know more of them than the European officers do. From tradition and the services of their forefathers the present men inherit a spirit which young strangers would not possess. Out of sixteen Native officers, fourteen are descendants of men who were in the regiment eighty years ago; the present men have eaten the salt of Government from their birth. They look forward to the same to their death, and the same for their children. The outcry for young men is a mistake; all are mercenaries. On the present ones Government has a hold which it could not have on the young gentlemen.

I would not touch the present system; indeed, I am averse to having younger men than we now have.

Regiments under the present system and Native officers are as good as it is possible to make them. If a thousand different systems are tried, an improvement on the present system will not take place; regiments are good in garrison, good at drill, ready at a moment's notice to answer any call, and I believe, if the opportunity was given, would fight well. I have seen but little service with them, but the little I have seen would give me confidence to go on any service with them with the present Native officers. I know many think there should be more European officers, and that our present Native officers are not of much use. I am of a different opinion after 35 years' experience with sepoys.

Colonel L. W. Buck, Com-
mandant 20th Madras N. I.

I have not any experience of the system.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

This has never been done in the Madras army. Its adoption is unfair to the Native officers in a regiment, as it stops their promotion, and it must be very distasteful for that reason in the corps in which it has been introduced. As a matter of policy, I think it is a mistake. The system should be tried in a corps in which the other system, *viz.*, rising from the ranks, has been abolished. The two systems should not be adopted in one battalion.

Lieutenant-Colonel F. H.
Tyrrell, 37th Madras Infantry.

It never has been done, and I do not think it ever could be done in the Madras presidency.

The Native gentlemen of good family in the south of India (not excepting the Musalmans of Hyderabad and Arcot) are too timid and effeminate to ever make good soldiers, even if they could be induced to enter the army.

Lieutenant-Colonel P. A.
Carnegy, 39th Madras Native
Infantry.

I am not aware that this has been attempted yet in the Madras presidency. If done cautiously, and the proper class of Native gentlemen could be induced to join, I think it would tend to raise the Native army greatly in the estimation of the people and by bringing the two races into closer communion would tend to increase loyalty on the part of the Natives.

Major E. Faunce, Command-
ing 14th Madras Native Infantry.

It has never been tried in the Madras army. If Native officers are to be retained to appoint men of good family, and if education would undoubtedly add to the efficiency of regiments, but objections that have often been urged to the measure on political grounds are of very great weight. Moreover, such men would be content while young, but would they as they grew older continue content to remain in subordinate posi-

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

Colonel W. Bannerman, 4th Bombay Rifles.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

Colonel B. Mallaby, Commandant 13th Bombay Native Infantry.

Colonel Crengh, Commanding 19th Bombay Native Infantry.

Colonel A. Carcey, 21st Bombay Native Infantry.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

tions all their service? I think not. Would they not become a dissatisfied, discontented class; and the source of danger such classes always are. If companies are ever again to be commanded by European officers as is earnestly to be hoped, I would do away entirely in Madras with Native officers, giving in compensation a slightly increased pay and pension to havildars generally, considerably higher to the regimental havildar major and color havildars. The general unpopularity of the measure is much more than doubtful, and would be swallowed up in the immediate advantage of the many. To appoint men to direct commissions is doing practically the same thing as far as the interest of men serving are concerned. The pay of 16 Native officers would, with subadar-majors and Native adjutants' allowances, amount to Rs. 1,147-8 per mensem.

Since this arrangement was sanctioned, only one instance has occurred in this army of a candidate offering himself for a direct commission, and he refused to enter as a jemadar in a cavalry regiment, saying that such a position would be degrading to his dignity, and that the commission of resaldar was the lowest he could accept.

No case has come to my knowledge where a young Native of good family has entered a Native infantry regiment (Bombay), and no application has ever been made to me by one to enter mine, and I have never met one I should like to have appointed to my regiment by a direct commission.

Such young men might like to join cavalry regiments, but I do not think they would like infantry.

I can offer no suggestion as to how the practice can be extended.

I am not in a position to give an opinion on this point, as I am not aware of any case in the Bombay army of a Native gentleman having been appointed to a direct commission.

The early training and mode of life of the generality of Native gentlemen is not calculated to imbue them with military aspirations so as to make them prefer the hardships of a campaign to the ease and luxury of the lives they usually lead.

I am of opinion that few indeed, if any, Native young gentlemen of good family would be found in the presidency who would care to accept a commission in a battalion of Native infantry.

I have not seen this system tried and do not think it advisable; the present non-commissioned officers with a fair prospect of promotion before them would naturally be much disappointed at finding the prizes they had themselves expected given to others. Moreover, I much doubt whether young Native gentlemen of good family would care for service in the infantry.

This arrangement is more applicable to cavalry regiments. Young Native gentlemen don't care to run about on foot, nor do I think it desirable to take away this object of ambition and inducement to good and faithful service from the *Native ranks in regiments*.

I know of no instance of this being done in the Bombay Native infantry. In my belief, the Mahratta of good family, though he may enter the cavalry branch, will not enter the infantry, and in regiments mixed as those of this presidency, I don't see any great advantage in his doing so, while I think heart-burning amongst the non-commissioned ranks very probable to the great disturbance of regimental harmony.

Of course it would be to the good of the service having Native officers of a higher position in society and of a superior education in the army, but its advantages would be counterbalanced, in my mind, by the ascendancy they would attain over the men, more especially of their own caste, which, in the event of disaffection, might considerably weaken the power and influence of the European officers, and have in consequence a most injurious effect. This innovation has never been attempted in the infantry of the Bombay army.

The practice of appointing young gentlemen to direct commissions has hitherto, I believe, been unknown in the Bombay army, and I fear its introduction would be considered an objectionable innovation by all grades who have always been led to look on the commissioned grades as a reward for good service in the ranks. It would be looked on as the sharp end of the wedge destined eventually to overthrow merit by family connections and interest derived therefrom.

In a comparatively young army, such as that of Bengal, the system might be introduced; but not so, I consider, in the old-established institutions of Madras and Bombay.

No, it is much better to drop the present practice as a failure. Let exceptionally good men be exceptionally provided for.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

I do not think so in the Bombay presidency.

29. Do you consider that the recruits obtained for your regiment are the best procurable of the class ordered; if not, what suggestions can you make for improving their quality?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

By no means; for artizans and laborers of all kinds receive better wages than sepoys; and the majority of recruits who offer themselves for service have to be rejected for physical reasons, or from not being up to the regulated standard. Speaking of Punjabis, I am of opinion that greater facilities for prosecuting their suits in the civil courts would render the service more sought after, and draw a better class of men to the ranks of the army; as from the fact of a man being a soldier and unable to obtain leave at all times, I consider many are often put to great extra expense, inconvenience, and loss. I also think that advantages in travelling by rail should be granted to sepoys, and return tickets issued to all men proceeding on leave or furlough to their homes. All these concessions would serve to make the service more popular and more thought of.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I think they are the best that could be procured. I have good Native officers and non-commissioned officers, and I employ them on recruiting duty.

I take the agricultural classes only, and get as many landed proprietors as possible.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

This question is partly answered in my reply to No. 25. The reserve scheme would bring forward men of better physique than now enlist. With careful recruiting, lads now obtained for this regiment turn out a fine body; but my system is to march recruits in squads under lance naiks to their bunniahs, where they are served out with the *full authorized rations*, and not allowed to mess with old sepoys. In this way they eat the *full* amount, and nourish their bodies properly; whereas, being allowed to feed themselves or to mess with sepoys, they begin their service by saving as much as they could, to the detriment of their constitutions.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I have no fault to find generally with the recruits obtained, but believe that many fine men are lost to the service through the "hobbies" of officers. For instance, during the recent augmentation I sent a recruiting party to a particular district where I had been told very fine men of the class I wanted were to be had. The officer commanding there objected to men over 5 feet 8 inches in height and rejected numbers. I have above suggested that there should be a district recruiting-depôt.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

The recruits obtained for my regiment I consider to be on the average of a very fair quality and as good as can be expected. Very much depends upon the non-commissioned officers and men selected for recruiting duty, and the manner in which they carry out their instructions as to the selection of recruits only of good physique. Men who do not carry out these orders properly are not fit to be trusted, and are marked accordingly. But if the inducements lately held out by Government in the shape of increase of good-conduct pay at earlier periods of service, and a liberal kit allowance, are not sufficient to tempt them, it seems difficult to offer any further suggestions.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

No.—But local recruiting for district or provincial regiments and the advantages of reserve service will improve the quality.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

I think that better men might be obtained than are now enlisted. Non-commissioned officers and men employed on recruiting duty are tempted to enlist their own relatives and friends in preference to others, and they take men who can pay them before those who cannot. *European* officers should be employed on recruiting, which, if there were depôt battalions in recruiting districts, could easily be arranged.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

The recruits I have obtained lately are of a fair average stamp, but not the best procurable. Localization would, I am sure, induce a better class of men to enlist. I would also suggest that recruits be granted, from date of enlistment, full sepoy's pay, and not, as at present, two annas a day subsistence allowance, which barely pays for the cheapest description of food. I feel sure this is the chief reason of the frequent desertions of recruits from the recruiting parties.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

Yes; the recruits are a very good class of men.

Lieut.-Col. E. G. Rogers, Commanding 20th Punjab N. I.

Most certainly not: *vide* following reports B and B1.

Report B.

I attach copy of report dated 2nd October 1872 (marked B1).

The causes operating against obtaining good recruits, enumerated in paragraphs 2 and 3 thereof, are still in force; and, as anticipated, the difficulty has immensely increased, and will continue to increase, unless the position of the sepoy be much improved.

I have already suggested a partial remedy. Increase of pay, especially to the non-commissioned grades, greater liberality as regards clothing and compensation for same when lost, destroyed, or damaged on service. Restriction of regiments to their own regulated recruiting-grounds and pension of rank as a right after fifteen years' service on condition of transfer to second reserve (for garrison duty in India only and in case of emergency), with some addition to pension in consideration thereof.

Add to these exemption from all tolls, free postage of letters to and from their friends, and conducting of civil suits on unstamped paper and freedom from court-fees, with right to have their cases heard (out of turn) on presentation, as of old in the Oudh courts.

In fact, restore the old privileges, which gave a man so much importance in Native eyes, better his pay and prospects, and the army will be worth entering, and of course more popular; though with many years of peace and security under our rule, the old martial spirit has died out, and good well-to-do men will be loath, even with strong inducement, to accept the irksome and often hard life of a soldier.

(Sd.) R. G. ROGERS, *Lieut.-Colonel,*
Commdg. 20th Punjab Infantry.

Report B1.

Dated Delhi, 2nd October 1872.

From—MAJOR R. G. ROGERS, Commanding 20th Punjab Infantry,
To—The Adjutant-General in India.

In reply to your memorandum No. 3407A. ^{Native Army} _{Recruiting} of 20th ultimo, I have the honor to state, for the information of the Right Hon'ble the Commander-in-Chief, that Native officers of the regiment on leave or on furlough in different localities have been directed to bring with them on return the number of recruits of their respective classes required to complete the regiment.

2. Owing to the very great demand for Punjab recruits, and to the increased prosperity of the agricultural classes of the Punjab, considerable difficulty is experienced in getting men such as those of which the regiment is composed. This difficulty has been, and will continue yearly, increasing.

3. The smallness of the pay (as compared with the cost of living, &c.), the increased labor of an infantry soldier's duties, and the withdrawal of apparently trivial (but really much prized) privileges, have combined to render the service less attractive than of old. Parents now constantly strive their utmost to prevent their sons enlisting; of those who do enlist, numbers take their discharge, no matter what their service, directly they are required at their homes. Till then they enter the army as an honorable service. Few for whom there is employment at home now enlist. Regiments of the Hindustani portion of the Native army have now Punjabis in their ranks, and recruiting parties of the Bombay army visit the Punjab.

Dated Delhi, 18th March 1872.

From—MAJOR R. G. ROGERS, Commanding 20th Punjab Infantry,
To—The Adjutant-General in India.

In reply to No. 909A. ^{Native Army} _{Recruiting} of the 13th instant, I have the honor to report, for the information of the Right Hon'ble the Commander-in-Chief, that I do not think it advisable to limit the age of recruits enlisting for the Native army to not less than eighteen years, instead of sixteen, as laid down in present regulations. As a rule, they are not enlisted under the former age; but good men might be lost by alteration of the limit.

Lieutenant-Colonel F. B. Norman,
Commanding 24th Punjab Native Infantry.

Yes.—Owing, however, to the recent augmentation, there was a great demand for Sikh recruits, and the area of enlistment being limited, men of this class were difficult to procure.

Lieutenant-Colonel J. Hudson,
Commanding 25th Punjab Native Infantry.

Yes, in ordinary times, and under ordinary circumstances, I think they are. There is of course much competition on the part of regiments in obtaining recruits; and the stations at which a regiment may be likely to serve has something to do with it. But when we consider and make allowance for the advance of civilisation, and the prosperity of the country, the opening of communications, and the extension of the railway system, and the better education of the mass of the people, by means of which they can qualify for more lucrative employment, I do not myself think the men now-enlisted into Punjab regiments have so much deteriorated as many would have us believe. If there has been a falling off in any one class, it may be amongst the Sikhs; but even from them it is quite possible to obtain a very fine body of men.

Lieutenant-Colonel G. C. Rowcroft,
36th Native Infantry.

Yes, to a certain extent, as regards my own regiment, the classes allowed being Ahcers, Loaths, and Dhanuaks. But I believe if an European officer were allowed to proceed to the districts whence and when extra recruits are required, there would be fewer rejections and failures. I am of opinion also that the depot and reserve systems, if organized, would improve the quality of recruits, in Hindustani regiments especially.

Lieutenant-Colonel F. M. Armstrong,
Commanding 46th (Bhatnagar's Sikhs) Native Infantry.

We obtain the best security procurable at present; but the Sikh recruit has fallen off of late years. There are many reasons to account for this. The value of land has increased in the Punjab, and young

men take more readily to cultivating it. Education has opened so many more employments. Formerly recruiting Sikhs was restricted to Sikh regiments; now almost every regiment either has, or endeavours to introduce, one or more Sikh companies. I would suggest regiments not entitled to Sikh companies by their organization to be directed to discontinue the enlistment.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

No; I do not. When I was with the 4th Native Infantry, I found great difficulty in obtaining good recruits; and I was told, on inquiry, that, though the men themselves were willing enough to enlist, their relatives dissuaded them from it, fearing that the regiment would be sent on foreign service. I found that the best way to adopt was to secure the co-operation of the district authorities; and I feel satisfied that if the advantages of the service, which are but imperfectly understood, were fully explained by them, and if they were called upon by Government to assist in enlisting recruits, the difficulties would be considerably lessened. These remarks apply to Hindustani regiments.

Major R. A. Wauchops, 14th Sikhs.

I think the Sikh enlisting-ground is a great deal too much drawn upon to allow us to have the same class of recruits as formerly.

Major A. C. W. Crookshank, 32nd Pioneers.

Yes; generally they are. We only get an inferior stamp when we are in a hurry. When we have time and can make proper arrangements, we get the men we want: hence my view that the fighting strength of a regiment should not depend on hastily-trained recruits. They should be trained separately and passed into the ranks as required.

Captain H. D. Hutchinson, 40th Native Infantry.

I think all recruiting ought to be conducted by European officers. Immediately after the annual inspection, an officer, with a small party of carefully-selected non-commissioned officers and men, should be sent to each well-known recruiting centre, such as Futtehghur, Shahjehanpore, Agra, Meerut, &c., &c.; and it should be his business to enlist recruits for all regiments requiring them. He should be an officer of experience; and, subject to the men passing a medical examination, he should have the undivided responsibility of passing them into the service.

NOTE.—Officers for recruiting duty should be appointed under divisional arrangements. Officers commanding regiments requiring recruits from any particular district would write to the officer commanding the division of which that district forms a part, giving all particulars of the recruits wanted. This information would be passed on to the recruiting officer for compliance, and a party should be sent down from the regiment concerned to take over the men when obtained, and escort them to their own head-quarters. At recruiting centres tents should be pitched for the recruits, and they should be looked after and subjected to some kind of discipline till despatched to their regiments. At present they live anywhere and anyhow, and often contract sickness and disease at this period.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

The recruits obtained for my regiment are fair; but, under a better system, a superior class could be obtained and in greater numbers, the present supply not being adequate. For further remarks on this subject, *vide* my letter* to Adjutant-General in India, No. 3A. (Confidential), ^{Recruiting} Native Army, dated 20th May 1879.

Major A. Baitye, 2nd Goorkhas.

I hope no change will be attempted in the present system of recruiting *Goorkhas*, unless indeed the Nepal Durbar could be induced to allow our recruiting parties to enter Nepal, and carry on their operations without obstruction. But as a willing assent on the part of the Nepal Government to such a proposition is not at all probable, matters had better be left as they are as far as this is concerned. But no regiments other than *Goorkhas* and the Guides should be permitted to enlist *Goorkhas*, as they do now, both on account of the difficulties of recruiting, and because it is better to keep these men as separate from the men of the plains as possible.

Major F. F. Rowcroft, 4th Goorkhas.

Yes, the very best. But under existing arrangements, as lately ordered by Government, it will be most difficult for *Goorkha* regiments to obtain good *Goorkhas* of the pure type! The recruits lately supplied by the Government of Nepal and sent to Goruckpore were to the extent of 70 or 80 per cent. utterly unfit for enlistment in *Goorkha* regiments. They were mostly Brahmins, Khuttries, Khuss Thappas, Newars, Demais, Lohars, &c., &c., men that are seldom, if ever, enlisted knowingly in *Goorkha* regiments. Demais are occasionally enlisted for the band or as buglers, and occasionally a few Lohars. The only plan, in my opinion, to get pure *Goorkha* recruits of the right type is to obtain the permission of the Nepal Government for our recruiting parties to enter Nepal and pick and choose recruits from the right districts. Hitherto it has been a very slow process getting recruits on the Goruckpore-Nepal frontier. The recruiting parties of *Goorkha* regiments have to compete against ordinary Native regiments, such as the 8th, 9th, 13th, 18th, 42nd, 43rd and 44th Native infantry and others; the 42nd, 43rd and 44th have a large number of *Goorkhas* in their ranks. The other regiments mentioned have each a so-called

Colonel R. Blair, 3rd Native Infantry.

Colonel H. Boisragon, Commandant 4th Sikhs.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Lieutenant-Colonel R. R. Chambers, Commanding 6th Punjab Infantry.

Major R. B. P. P. Campbell, Corps of Guides.

Major A. G. Ross, Commanding 1st Sikh Infantry.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Colonel W. A. Gib, Commandant 26th Madras Native Infantry.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Infantry.

Lieutenant-Colonel P. A. Carrogy, 39th Madras Native Infantry.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Goorkha company, though I believe in the time of Sir Hugh Rose, when Commander-in-Chief, it was prohibited for regiments of the Native line to have special Goorkha companies. The Goorkha recruits are generally procurable in January and February, when fairs are held on the frontier, but it has often taken recruiting parties of my regiment four to five months to get only 30 to 40 recruits of the pure right type.

I think they are. Those recently enlisted have been very carefully inspected, and will, I think, turn out well.

Yes, I have ever been careful of this point with my recruiting parties and encouraging the men to induce their relations and friends to enlist in the corps.

We generally get very good recruits, but when a great many recruits are enlisted in a hurry, as was the case last year, several bad men slip in. I think myself that it is a pity that so many regiments enlist in the Punjab and in the North-West Frontier.

I find, as a rule, recruiting parties of my own regiment succeed in obtaining recruits of the best stamp procurable.

I consider the recruits lately obtained up to the mark, and the supply of young men physically fit is quite equal to the demand.

The recruits obtained for my regiment, The Corps of Guides, are, I think, as good as can be got.

Sikhs.—They are in ordinary times as good as are obtainable.

Punjabi—Musalmans.—Ditto.

Dogras.—Ditto.

Hindustanis.—No, they are shorter, smaller men. We do not get the pick: having but one company, and being far from Hindustan.

Pathans.—No; we have but one company, and it is scattered over 8 companies.

My only suggestion of improvement is, if we are to keep these companies (Hindustanis and Pathans), make no class companies and collect these fellows together under their own Native officers.

The recruits obtained for my regiment are physically the best procurable, but they are not so frequently drawn now as heretofore from the sons of well-to-do ryots. The spread of education among the people has also induced many lads, the sons of well-to-do people, to seek other and more lucrative duties. I also think that the growing system of interfering with the men's families and household arrangements on sanitary grounds deters many well-to-do lads from enlisting.

I would suggest therefore less interference with their families.

I consider that the recruits obtained for the regiment are, on the whole, a fair body of men.

The recruits are the best obtainable, and are the same, and as good, as they were thirty years ago. There is no difficulty in obtaining as many as are wanted.

The Madras regiments recruit from all classes except sweepers. I am satisfied with the recruits obtained; they rapidly improve under training.

I think the recruits in my regiment are of a very good description, about the best procurable for the money, that is, the rate of pay which is small for the work done. Higher pay would procure finer men in all probability.

We get a fair stamp of recruits, but not with the same facility as formerly. I think localizing regiments and battalions in particular districts would procure a more plentiful supply.

No, certainly not. I think, considering the great advantages of pay, pension and prospect of advancement, we should get a much better class of men than we are now enlisting. Commanding officers should interest themselves more in the matter than they do as a rule, instead of leaving it so much to their adjutants; and I think also that commandants desirous of obtaining recruits should be allowed and encouraged to advertise freely in district gazettes, and by placards on police thanas, and should be aided indirectly by the police themselves. A strict watch should be kept by the regimental authorities that extortion is not practised by Native staff, and that men of one caste are not deterred from coming forward for enlistment by threats from men of lower or different caste to themselves.

No; the agricultural classes from which the Hindoo portion of them come are now so much better off than formerly, and there are other openings, such as police, that do not take them from the vicinity of their homes, that the pay of a private is no longer sufficient inducement

for the best to enlist. We were last year quartered in North Arcot, formerly a great recruiting field, where in 1857-58 very large numbers were obtained as soon as required, and yet we had to leave much under strength. The only suggestion I can make is an impracticable one I fear—higher pay and free quarters: the market value of the article we want is more than we can give.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

About a year ago the standard for recruits both as to height and chest measurement was raised, and the stamp of recruit now being enlisted is very satisfactory. The Mahrattas, though not perhaps so tall as the recruits obtained from Northern India, are, when properly selected, muscular and well-limbed and suitable for military service. The Mahrattas of the Deccan are preferred as recruits to those from the Concan, but both make good soldiers. The recruiting parties from Bombay regiments, which visit the Punjab and Northern India, bring a good stamp of recruit from those parts, but the enlistment of such men is limited, as it has always been held that it is most desirable to maintain the distinct nationality of the Bombay army. Many commanding officers prefer the Mahomaden soldiers from the Punjab to those enlisted within the limits of the presidency, but I think this arises in a great measure from the fact that these men are more easily obtained and are taller and more effective-looking, though not more efficient than the well-selected Mahratta. The annexed return shows the strength of the various castes and races in each regiment of Native infantry in the Bombay army:—

Return showing the distribution of the present strength of each Regiment of Native Infantry by Castes and Races.

22nd August 1879.

Corps.	Mahrattas.	Mahomedans (excluding those of the Punjab).	Hindustanis of all Castes.	Punjabis (including Sikhs).	Purwars (all Natives of this Presidency).	Other castes, including Christians, Jews, men from the Carnatic, &c.	TOTAL.
1st Regiment Native Infantry	384	67	89	79	110	132	861
2nd " " "	271	29	78	52	123	107	665
3rd " " "	298	115	48	15	52	160	688
4th " " "	150	113	194	4	130	99	690
5th " " "	293	97	67	48	72	116	693
6th " " "	351	88	119	6	105	31	700
7th " " "	335	95	97	36	97	45	705
8th " " "	335	72	35	91	87	71	691
9th " " "	276	89	164	15	90	72	706
10th " " "	298	90	52	23	104	137	704
11th " " "	390	58	79	44	79	33	683
12th " " "	327	61	51	47	85	100	671
13th " " "	308	55	112	56	114	44	689
14th " " "	275	50	133	55	77	122	712
15th " " "	279	67	79	6	79	174	684
16th " " "	335	33	41	34	74	140	662
17th " " "	206	43	47	39	121	236	692
18th " " "	356	51	51	34	63	69	624
19th " " "	395	37	122	57	130	110	851
20th " " "	313	61	138	20	87	87	706
21st " " "	...	213	77	3	384	26	708
22nd " " "	195	78	142	41	62	164	682
23rd " " "	303	101	144	49	...	112	709
24th " " "	346	57	71	29	65	139	707
25th " " "	273	55	62	39	77	170	676
26th " " "	311	64	30	22	71	171	669
27th " " "	4	233	55	323	...	23	693
28th " " "	359	39	57	21	64	101	691
29th " " "	2	366	23	383	...	42	816
30th " " "	80	252	112	131	...	78	653
TOTAL	8,048	2,939	2,569	1,807	2,607	3,116	21,088

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native (Light) Infantry.

I think the recruits which have of late been obtained for my regiment have been as good as I had any reason to expect, considering the number of regiments which recruit from the same districts, and the small area of country they have to recruit from.

The country from which the Bombay regiments are allowed to recruit from in their own presidency is, I consider, *worked out*. Having the number of foreigners allowed in my regiment, I can take none, except from out of the presidency, but would gladly do so.

I think Bombay regiments might be allowed to enlist more men from the upper parts of India.

Colonel S. Edwardes, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay Native Infantry.

I have great difficulty in obtaining men of the height and chest measurement required for a Grenadier regiment from the Southern Mahratta Country. Those obtained, however, are good. The only remedy is to increase the area for recruiting. The standard of height should certainly not be lowered; it is quite low enough as it is. It would be a good plan to offer a premium to men on furlough who bring good recruits. They are more likely to induce their relations and friends to enlist than are recruiting parties.

Colonel W. Bannerman, 4th Bombay Rifles.

The recruits enlisted are the best procurable of the class ordered; but there is often great difficulty in obtaining the number wanted, of standard height and physical fitness for service. Recruits are not to be had in the same numbers now-a-days as formerly, and it is only those who find they cannot get even a bare livelihood at home who come.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

We have little difficulty in procuring excellent recruits, but I think that more men than the 100 now allowed might with advantage be enlisted from beyond presidency limits, especially from the Punjab.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

They are not the best that might be had. Recruits in former years (20 and 25 years ago) were much better, but education has had the effect of drawing them away to other occupations.

Railways employ large numbers who formerly enlisted; service there is preferred, being less strict and probably more open to other gains.

The army is less popular than it used to be; a soldier has more difficulty now living on his pay; and although this has been slightly improved of late, it is still insufficient to compete with other occupations, and so bring the best material into the ranks; the whole secret is a matter of *pay*.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

As far as the limited area for recruiting permitted in this presidency will admit, I think this is so.

The quality of the regiment, as a whole, would be vastly improved by a larger admixture of the Northern tribes being allowed as suggested in reply to question 10.

My own conviction is that the Concan and Bombay portion of the Deccan are worked out for the present, and the character of their supply must continue to deteriorate if the Bombay army is to continue to draw from it.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

The recruits we obtain are some good and some indifferent, and the best procurable at the time; but should a reserve be determined on, I consider more would offer to enlist, and consequently there would be a greater choice, as there would then be a certainty of their returning to their homes after a service of twelve years, should they so wish; whereas now men are forced to remain with their regiments until they become unfit from age or ill-health, and this deters many from entering the service.

Colonel A. Carnegie, 21st Bombay Native Infantry.

I have not the slightest difficulty in getting recruits of the requisite class as vacancies occur. During the last two years I have obtained some remarkably fine men.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

I believe they are as good or nearly so as can be found in the districts we are at present allowed to recruit in. The only suggestion I can make for their improvement is to secure more willing and general assistance from the district officials to recruiting parties, and for men discharged from the army or pensioned with good characters to have a first claim on all minor civil appointments, such as police, peons, chaprassies, railway gate-keepers, &c.

Lieut.-Col. O. V. Tanner, Commanding 24th Bombay N. I.

I think the system of local regiments would cause an improvement.

30. Are you in favor of class-company regiments, class regiments, or mixed regiments?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

Class regiments.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I strongly advocate class regiments, all the men of each regiment being raised from a given district or area. In addition to the other advantages, matters of feeding are so simplified in class regiments.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Most decidedly the *class regiments*; for example, *vide* the Goorkhas. Had there been class regiments, there would have been no call, as in this Afghan campaign, for men to either help to ruin and desolate their own villages and to fire upon their own kith and kin, or to desert to the enemy. Blood is thicker than water. Under the present organization, religious excitement or disaffection of a class cannot be confined to any limits, and the only remedy against it is the *British bayonet*. With a general mixture of classes in each regiment, excitement or disaffection of any one class would make itself felt in every garrison in India. With class regiments the excitement would be confined to the garrisons where those regiments alone were quartered. Regiments of antagonistic classes could be sent down to oppose and put down the disaffected ones. Antagonism of classes is one of our surest holds on this country. There would be greater *esprit de corps* than now; the movements of class regiments and the messing system would be simpler and more expeditious; and the reserve scheme would be very greatly facilitated.

Class regiments could be recruited from certain areas; and this would simplify matters as regards the head-quarter centre of their reserves. Thus, of the Sikhs, there could be Malwa Sikh regiments, with Ferozepore or Ludhiana as head-quarter centre; the Doaba Sikh regiments, head-quarter centre Jullundur; the Manjha Sikh regiments, head-quarter centre Lahore or Umritsur. The Malwa Mahomedan regiments; the Doaba Mahomedan regiments; the Pind Dadun Khan and Jhelum Mahomedan regiments; the Kohat, including Bungurh and Khuttucks Pathans, regiment; the Eusufzai Pathan regiments, &c., &c., including the Dogras, Oudh Hindustanis, Rohilkhund Hindustanis, all in separate regiments, with their head-quarter centre conveniently situated.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Class regiments.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

I consider that of whatever classes a regiment may be composed, each class should be in separate companies and not indiscriminately mixed up. But I am decidedly of opinion that regiments composed as my own, of almost every class, Sikhs, Punjabi Mahomedans, Hindus of almost every caste, high and low, from Brahmin and Rajput to Jats, Ahirs, all kinds of inferior castes to the very lowest, Khuttucks, Chamars, and Bhungis, are a fatal mistake. The men of these low castes never make good non-commissioned officers, and are quite unfitted for the commissioned grade.

They feel that they have no social status, and can never gain any respect from men of higher caste, having no self-respect of their own.

If such men were enlisted in special low-caste regiments, it is possible they might be made more of; but I doubt it, as I do not think they have any natural aptitude or liking for the military profession.

Mixed regiments of Hindustanis, such as Brahmins, Rajputs, Ahirs and Hindustani Mussalmans, as in the old days, are not, I consider, in any way objectionable; but in these the Brahmin element should be small, and I would always in this case suggest an equal proportion of Mahomedans to Hindus.

Hill-men, whether Goorkhas or others, such as Kumaonis and Dogras, also I would have in class regiments of their own. Sikhs and Punjabi Mahomedans also I consider no disadvantage if in proper proportions, each with its own Native officers and non-commissioned officers of companies. But I give the preference to class regiments, whether Sikhs, Pathans, Punjabi or Hindustani Mussalmans, or Hindus. I consider in such regiments one would always get the best men of their class; and they would always be able to be pitted one against the other in case of any disaffection among any particular class.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Class battalions, with one or more companies, according to local circumstances, of a different religion or race to the bulk of the battalion. For depôt battalions, class companies to meet the requirements of the service battalions.

By localizing armies and regiments for recruiting purposes (*vide* answers 10 and 15), we shall succeed to a great extent in keeping distinct *local and race* interests, but we shall still fail in bringing *religious and caste* interests into antagonism. To do this the elements of the regiment must be again sub-divided, and a system of class battalions or at least class companies must be rigidly enforced.

In class battalions, however, at least one of the ten companies should be of a different race or religion to the rest, in order that the officers may always have some small body on whom they *might* rely in case of mutiny.

Had the old army been so organized, we might possibly have seen the defence of Arrah repeated in half-a-dozen different places.

Mixed regiments confound class interests and destroy caste prejudices. Class battalions and local regiments foster *esprit de corps*, increase the popularity of the service, facilitate the formation of reserves, and, above all, keep alive class and race rivalries.

Note.—I consider Hindus generally to be of one caste. I would not seek for instance to sever Brahmins from Chuttria or Ahira from Gwalas. The shades of distinction are so slight as to render separation neither necessary nor practicable.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

I am a strong advocate for class regiments. The enemies against whom our troops are liable to be sent are of such varied castes and denominations, that if mixed or even class-company regiments are employed, some of the fellow tribesmen or compatriots of the enemy must necessarily be amongst our troops, the objections to which are obvious, and have been proved by experience in the late campaign. On the other hand, with class regiments, a judicious selection of corps to be employed would obviate this entirely.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

I am certainly in favor of class regiments.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I think class regiments the best, as they would be more ready to turn against another class if required. Men of different classes mixed up in the same corps for many years are apt to become quite friendly after a time. Besides, in the event of double-battalion regiments being formed, it would be impossible to have one battalion at a fixed head-quarters near the men's homes, unless the men were all of one class.

Lieutenant-Colonel R. G. Rogers, 20th Punjab Native Infantry.

Of class companies. With them valuable class emulation is obtained, individuality of class customs, antipathies, &c., preserved, and danger of powerful combinations averted.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I think that there should only be two kinds, *viz.*, class-company regiments and class regiments. I would keep as they are all the present class regiments; but I think that a class-company regiment is the best composition for Punjab regiments and high-caste and low-caste Hindustani regiments. I think it essential that there should not be more than four classes in each regiment, and that each of these classes has its proper proportion of Native commissioned and non-commissioned officers. The class-company Punjab regiments should be composed, as now, of Sikhs, Punjabi Muhammadans, Pathans, and Dogras. I think that the Sikhs should either be all Manjha or all Malwa men. Hindustani class-company regiments should be of two kinds, *viz.*, high-caste and low-caste. I consider it a mistake to have low-caste men in a high-caste regiment. In the high-caste Hindustani regiments there should be some companies of Hindustani Muhammadans. I think it more advisable that Sikhs should be eliminated from Hindustani regiments, after a few years' service in which they become brahminized. Leaving out of the question Goorkha and Muzbi regiments, I think that the class company regiment, under the conditions I have named, is more generally useful than a class regiment. My objection to mixed regiments is that there is no security that every class is properly represented in the commissioned and non-commissioned grades; and this I consider absolutely necessary to ensure a regiment being contented and efficient.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native Infantry.

I am decidedly in favor of class-company regiments; but, as a *sine quâ non*, the companies should be commanded by Native officers of their own class.

I am inclined to think that if we are to reap the full advantage of all that is valuable in the character of each class, we should keep that class separate by itself. If the classes are mixed up, I think it is more than possible for the rough edges of caste and class prejudice (valuable elements in their way) to be rubbed off.

Nothing in my opinion tends more to the efficiency of a regiment than the existence of a healthy emulation between the classes of which it is composed.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Of class regiments; but I would have no caste enlisted below that of the Ahir. Class regiments would be creative of great *esprit de corps*, and a very desirable object would be gained by never having, as under the present system, a low-caste Native officer over higher caste inferiors in grade.

Lieut.-Col. J. M. Armstrong,
Comdg. 45th (Rattray's Sikhs) N.I.

Class regiments.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I am in favor of class regiments, as far as the Sikh and Goorkha soldier is concerned. It is well known that the Sikh, by being associated with other races, loses his special characteristics; and in regiments so composed the peculiarities of race no longer oppose each other in a marked manner. This is seen more especially in certain low-caste regiments in which Sikh companies exist. These men by contact with the races which surround them gradually lose their nationality, and are Sikhs

only in name. I would therefore keep Sikhs and Goorkhas separate, and would advocate the formation of a certain number of Sikh regiments, but their introduction must be gradual. In regiments composed of other races the system of class companies seems to work very well, and is preferable to that of mixed regiments, of which I do not approve. While on this subject, I should like to say a few words about a certain class of regiments which are kept up on a system which I cannot but think a mistaken one. These regiments are composed principally of the very lowest castes; and, however smart they may be in appearance, are unsuited for fighting purposes, and would not bear the strain of a campaign. This indeed appears to be acknowledged by Government, as they are never employed on service; and the question arises as to the advantage gained by retaining regiments recognized to be not adapted for the field, and whose establishment costs equally as much as those regiments which are in every way efficient.

Class regiments.

Major R. A. Wauchope, 14th Sikhs.

Major A. C. W. Crookshank, 32nd Pioneers.

I prefer class regiments where such are possible; where not, then regiments composed of two or at the most three cognate classes. I would not mix Hindus and Muhammadans, nor would I associate high with low caste. In the antagonism and rivalry arising from difference of caste and creed should rest our strength, whereas we are doing all we can to obliterate these distinctions and rub the corners off. I have served in a class-company regiment, and now command a class regiment; and the peace, concord, and harmony of the one most favorably contrasts with the other.

It is impossible for rival creeds and castes to work in perfect harmony with each other, and rows are easily produced. In the way of promotion there cannot be perfect satisfaction. I have known a lance naik run to jemadar in six months, merely because his class had but one company, and he was the most eligible of his class, which had been much reduced. He superseded 40 naiks and 40 havildars, not because he was a better man, but because of his caste. Now, however this may be accepted and submitted to, it is not altogether free from heart-burning.

The small advantages to be gained by a little rivalry among caste companies does not equal the great advantages of a happy united regiment, to say nothing of the advantages as regards carriage, cooking, &c., &c.

Captain H. D. Hutchinson, 40th Native Infantry.

I advocate class regiments. One great drawback common to class-company regiments and mixed regiments is that the different castes require different kinds of cooking utensils. On service this would be troublesome.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

I am in favor of class regiments as being more efficient; and if disaffection is dreaded, I believe that the smaller the unit and the more mixed, the greater the chance of combination and corruption. Hindus and Mahomedans were side by side in regiments in the mutiny; yet made common cause against us in spite of their antagonistic creeds and races.

Major A. Batty, 2nd Goorkhas.

Would have class regiments, but would allow a certain number of different classes to enlist in a regiment that was quartered near their homes, and would not lay down the rule that each regiment must enlist only one class. Would have six companies of one class, and the other two companies composed of all classes belonging to the district in which the regiment was quartered. If all the companies are of one class only, and the regiments quartered in their own province, many good soldiers would be lost to the army, as they would have to go to regiments serving far from their own homes with no probability of serving near them.

Major F. F. Rowcroft, 4th Goorkhas.

As far as my somewhat limited experience goes, I am in favor of having class regiments.

Colonel R. Blair, 3rd Native Infantry.

Having only served in my present regiment, which is a mixed class, I am unable to say.

Colonel H. Boisragon, Commandant 4th Sikhs.

Class regiments: for details, *vide* my reply to question 10. Class companies offer no advantage; on the contrary, drawbacks. Either class or mixed regiments; the former now a necessity, for various reasons already given herein.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

I know most of class-company regiments, and I like that organization best; but I don't think that it has practically any great superiority over the mixed system. Regiments do equally well under both systems. I should consider a man a madman who took a mixed regiment like the 4th Punjab Infantry and changed it into a class-company regiment with the idea that he was thereby improving it. I would not have

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

Major R. B. P. P. Campbell, Corps of Guides.

Major A. G. Ross, Commanding 1st Sikhs.

Colonel A. Jenkins, Commandant 2nd Madras N. I.

Col. W. Osborn, Offg. Commandant 9th Madras N. I.

Colonel G. Hearn, Commanding 15th Madras N. I.

Colonel L. W. Buck, Commandant 20th Madras N. I.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Major E. Fancee, Commanding 14th Madras Native Infantry.

Brigadier-General H. F. Brooks, Adjutant-General, Bombay Army.

many class regiments in the army; but I would not alter the organization of class regiments that are now in an efficient state.

I prefer class-company regiments, and think they are preferable for many reasons, principal among these for the emulation there is among the classes.

I think a larger number of class regiments could be introduced with advantage.

Where it was necessary to send troops into a disturbed district, it would be desirable to have the men totally unbiassed by local sympathy or prejudice.

A better system of messing (and thereby curtailing the quantity of cooking-pots) can be carried out in a class regiment than in a mixed one.

When a regiment is not a class one, I prefer mixed to class companies.

What I go upon is that the closer the men are brought together, and the more thoroughly they are mixed, the better. With class companies, I am inclined to think the men of different classes do not mix so freely as they do in the others.

My experience has always been with class troop and company regiments; and I certainly prefer them to any other, as each troop or company neutralizes the other on all occasions. Class-company regiments are not so bigoted as class regiments. I have heard officers and men belonging to mixed regiments lamenting that their regiment was not a class-company one.

I like class regiments.

I like class half-battalions.

I would like class double-companies.

I like class companies.

I dislike mixed regiments, as I think you are handicapped all round in dealing with the men. For the reserve system, I suspect the regiments must be class regiments.

I am in favor of mixed regiments in the fullest sense of the term.

I am in favor of mixed companies and mixed regiments.

Mixed regiments or class regiments would not answer in Madras.

The Madras are all mixed regiments. The system appears to answer well. I have no experience of any other.

On the whole, I am in favor of mixed regiments in as nearly equal proportions as possible, so that no one class or caste shall dominate over the other.

I have always served with mixed regiments, but for efficiency I should prefer class regiments.

I think class regiments dangerous in the event of political disturbances among the class they are drawn from. Class-company regiments are not so open to objection on this score; but I don't think they would hold together, or pull together at a pinch, so well as even mixed regiments.

Mixed regiments, as a rule. I think combination against Government more unlikely in a mixed regiment than in the other two; but if such an experiment could be tried, I believe a Native regiment composed entirely of Native Christians would be perfectly safe and loyal. They must be so.

Of mixed regiments. Any common action, whether as the outcome of a deliberate combination, or the unconsidered and momentary outburst of fanaticism, is much less likely where all castes are mixed together.

I believe that class regiments are the best, as I feel assured that the class or caste which has in civil life the social superiority will also in a military body dominate the inferior castes, and thus neutralize their influence, which would be considerable if they were kept as separate regiments. The fact of a low-caste man holding a commission as an officer does not in practice give him a superior social position to a Brahmin sepoy, and it appears useless to attempt to ignore this feeling, the results of which in mixed regiments must be very detrimental to discipline. If all the armies of India are hereafter united under one Commander-in-Chief, the class-regiment system would be found most useful, as it would then on emergencies be possible so to locate regiments that, even in times of popular agitation, the sepoys would have no sympathies whatever with the people of the district in which they were serving.

Brigadier-General A. B. Little,
Commandant 25th Bombay
Native Light Infantry.

I am not in favor of class-company regiments or class regiments. I think nothing can be better than having men of all castes mixed up, so to speak, and do duty in every way together.

My experience during the mutiny led me to think this; and this opinion I have ever held since.

Col. S. Edwards, Comdg. 2nd
(Prince of Wales' Own) Grenadier
Regiment Bombay N. I.

I am in favor of mixed regiments.

Colonel W. Bannerman, 4th
Bombay Rifles.

I am in favor of mixed regiments. Class regiments and class-company regiments both tend to foster and keep alive caste prejudices, detrimental to the interests of the service.

Colonel G. W. Hanson, Com-
manding 9th Bombay N. I.

Most decidedly in favor of mixed regiments, for the reason given in my answer No. 10.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

A mixed regiment is best for Bombay troops.

Colonel R. Mallaby, Command-
ant 18th Bombay N. I.

The more mixed regiments are the better; and I should be glad to see those of the Bombay army more so.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Mixed regiments and mixed companies.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

Most decidedly of mixed regiments. I consider that to this system the Bombay army owes its salvation during the Bengal mutiny.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

I am strongly in favor of mixed companies and mixed regiments, with the exception of a few castes, such as Beluchis, Goorkhas, and perhaps Africans—Seedees. I think a regiment or two of Eurasians might be raised at each presidency with advantage. In ordinary Native regiments, the greater the mixture the better.

Lieutenant-Colonel O. V. Tan-
ner, Commanding 23rd Bombay
Native Infantry.

I am in favor of class regiments so far as to have all of one creed, such as all Mussulmans or all Hindus, &c., as it would be less complicated in hutting men, in feeding them when crossing the sea, &c., &c.

31. Is any arrangement possible by which Native officers of great families could bring recruits to a regiment, and maintain a certain periodical supply?

Colonel J. Doran, Command-
ing 27th Punjab Native Infantry.

I know of none, unless that when entertaining Native officers of this description, commanding officers made it a proviso that they should bring a certain number of recruits annually.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native In-
fantry.

I do not think it advisable that any such arrangement should be contemplated. You must have good Native officers to be able to get good recruits; but family regiments or companies are bad, and such they would become under a system of supply through Native officers of good family with periodical supply.

Colonel T. Boisragon, Com-
manding 30th Punjab Native In-
fantry.

Some such arrangements might be made by Government with *Native gentlemen* of undoubted loyalty and position; but I do not think it would be at all desirable to put this power into the hands of *Native officers*, supposing they had sufficient influence to maintain a regular periodical supply. Supposing that a Native officer committed a military offence meriting dismissal from the service, he would use influence over the men procured through him prejudicially to Government, and besides, while in the service, they would look up to him much more than to the commanding officer or any of the British officers.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

There could not be a finer lot of men in regard to physique than those of the old Bengal army before the mutiny. Recruits were principally brought to corps by Native officers and men returning from furlough, and there were always recruits in the lines waiting for vacancies. The old system might be reverted to with advantage.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

Such a system might be practicable in Oudh and other parts of India where there are large landholders; but not I think generally everywhere.

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

Dependent on the land tenure of the province. Where a zemindari or talukdari system prevails as in Oudh, possibly the grant of commissions, coupled with remission of certain taxes, might be made conditional on obtaining recruits.

Civil officers could best answer this question.

Lieutenant-Colonel P. Harris,
Commanding 11th Native In-
fantry.

No doubt some such system could be organized if properly undertaken. Indeed one of our old retired subadar-majors annually sends us

- some recruits from his own village. During the mutiny at Barrackpore this Native officer had a considerable following of his own men in the regiment; and by distributing them over the different companies, we were enabled to get information for the authorities of all that was going on in every regiment at the station. A great deal of valuable information reached Lord Canning at a very critical time through the agency of this Native officer and his men.
- Lieutenant-Colonel R. J. Walker, 17th Native Infantry.
- I know of no arrangement by which this could be managed.
- Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.
- Native officers do bring a large proportion of recruits. Without an undue amount of absence, I do not see how they could arrange for maintenance of a periodical supply.
- Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.
- All attempts at this that I have seen have failed. During the mutiny many men of good family raised companies and were rewarded with commissions. Recruits being urgently wanted at the time, the physique of the men thus enlisted was not too closely scrutinized. I have not known a case where a Native officer kept up his company by a periodical supply of recruits.
- Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.
- This very much depends on commanding officers; and in most regiments it will, I think, be found that Native officers are encouraged to bring a certain number of recruits. The presence of a few friends and adherents of a Native officer in a company is a decided advantage; but this requires careful supervision on the part of commandants to prevent the existence of cliques, which are a fruitful source of ill-feeling and trouble in Native regiments.
- Lieutenant-Colonel G. C. Bowerst, 35th Native Infantry.
- Not in a Hindustani infantry regiment, though possible in Native cavalry, and in regiments of Punjab infantry.
- Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Ratray's Sikhs) Native Infantry.
- Not in the infantry, I think. Men in a position to do this prefer service in the cavalry.
- Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Alishahad Division.
- I do not think so, as Natives would be inclined to favor their own relations and select them for recruits, irrespective of their fitness for the service. There are of course many exceptions; but this, in my experience, is the rule.
- Major R. A. Wauchape, 14th Sikhs.
- They do all they can now, but nothing certain could be expected.
- Major A. C. W. Crookshank, 32nd Pioneers.
- I suggested in my answer to question 23 that direct nominees should, as a qualification, bring 50 recruits with them. We always encourage Native officers and non-commissioned officers to bring in recruits, particularly when they take leave.
- Captain H. D. Hutchinson, 40th Native Infantry.
- I do not think so, and should not consider it a desirable arrangement.
- Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).
- With reference to Goorkhas, *vide* paragraph 4 of my letter* to Adjutant-General, dated 20th May 1879. Recruiting Native Army
- Major A. Dattya, 2nd Goorkhas.
- Not in Goorkha regiments.
- Major F. F. Lowcroft, 4th Goorkhas.
- I should say quite possible, especially in the case of Sikh and Pathan Native officers of good family; but this question will be better answered by officers of regiments in which Sikhs and Pathans are largely enlisted.
- Colonel R. Blair, 3rd Native Infantry.
- I am not aware of any.
- Colonel H. Boisragon, Commandant 4th Sikhs.
- No, certainly not. No Native is to be trusted in this respect. Those enlisted by them would be their followers, over whom naturally they would have great influence, and not beneficial. This system was long ago tried in the old Bengal army (chiefly in the cavalry), and failed as a military machine, with baneful effects to the State.
- Lieut.-Colonel F. H. Jenkins, Commanding Corps of Guides.
- This is now the practice in the Guides and in many other regiments.
- Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.
- If the services of a British officer cannot be spared, it is customary to depute good Native officers on recruiting duty. I am unable to suggest any means of their keeping up a periodical supply.
- Lieutenant-Colonel D. R. Chambers, Commanding 6th Punjab Infantry.
- It would be extremely difficult to make any general arrangement on this point. It depends entirely on the individual character of the Native officer. My own experience is that some Native officers are extremely useful in obtaining recruits, while others whose family influence ought to enable them to render valuable service in the recruiting line are quite useless. Besides, Native officers will occasionally try to get men they are interested in enlisted, although they do not come up to the requisite standard.

Major A. G. Ross, Commanding 1st Sikhs.

Certainly they could; and I fancy, according to the numbers of their lot, they could maintain a supply. Commanding officers would have to look out and see they did not bring in inferior classes dependent on their families, i.e., poor, low-bred retainers.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I see no way possible to the real advantage of the State of placing the recruiting of the corps in the hands of the Native officers.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

I do not consider that this plan would be likely to bring a better class of recruits to a regiment than the present plan of sending out recruiting parties. These recruiting parties, if commanded by men judiciously selected, generally succeed in obtaining a very fair body of recruits.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

Not possible. No Native officer in the Madras army has influence enough to obtain even five recruits. Their only influence is in the regiment; they have none outside. Almost all my Native officers were born in the regiment and have never left it.

Colonel L. W. Back, Commandant 20th Madras N. I.

Certainly not in the south of India.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I know of none. A good and zealous Native officer should secure a good recruit whenever he has a chance; but I should not like him to bring in too many of his own clansmen.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras N. I.

Not in the Madras presidency. We have no Native officers of good family.

Lieutenant-Colonel P. A. Carnegie, 38th Madras N. I.

Never attempted to my knowledge in the Madras presidency; and I do not think it possible at present.

Major E. Faunce, Commanding 14th Madras Native Infantry.

It is not possible in Madras. There are of course many Native officers who are the sons of Native officers, but men of good family are unknown. As stated in reply 33, I think every effort should be made to have Native officers without any connections or ties with the men they have to command; whereas with us, all start from the same social level. Moreover, with us Native officers could not bring with them or maintain a periodical supply of recruits, and it seems at least doubtful whether such a system is politically wise.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

The Native officers of this army having risen from the ranks, the course suggested in this question could not be carried out; but, even where it is possible, I am doubtful of the expediency of an arrangement which would necessarily have the effect of giving a special pre-eminence and power to some officers in a regiment, to the detriment of others whose circumstances or birth did not permit of their securing a personal following in the corps.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Light Infantry.

No.—I do not think, as far as I know, there are any Native officers who hold such a position of influence in their own country as to be able to maintain a supply, or bring recruits to a regiment.

Col. S. Edwardes, Comdg. 2nd (Prince of Wales' Own) Grenadier Regiment Bombay N. I.

Not in the Bombay presidency.

Colonel W. Bannerman, 4th Bombay Rifles.

Many of the Native officers are of good and respectable family, but not of sufficient social position and influence to bring recruits into the service in any considerable number, and to maintain a periodical supply.

Colonel G. W. Hanson, Commanding 8th Bombay Native Infantry.

I cannot suggest any arrangement of the nature you propose likely to be an improvement upon the present system, which works satisfactorily.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

I know of none.

Colonel R. Mallaly, Commandant 13th Bombay Native Infantry.

I don't think that the arrangement would be applicable to our mixed regiments, in which a large number are low-caste men. I should be afraid the men brought into the regiment under such circumstances would form a clique, and be viewed with jealousy by the rest of the men; and I think with reason.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

No; except in very limited numbers, as is the case now when they occasionally return from furlough with one or two from their own village.

Colonel A. Carnegie, 21st Bombay Native Infantry.

I don't myself see the necessity for any such arrangement; for, as already stated, I experience no difficulty whatever in enlisting recruits as required.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

I know of none. I have only seen one instance; and that appeared to me to be a failure.

Lieut.-Col. O. V. Tanner, Commanding 29th Bombay N. I.

In Bombay we do not, as a rule, get men of good family.

32. Are you in favor of additional pioneer regiments in the Native army, or pioneer companies in regiments?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

I consider a few more pioneer regiments would answer best; say two more for Bengal, and one for each of the other presidencies.

Colonel H. S. Obbard, Commandant 41st Bengal N. I.

More pioneer regiments, not pioneer companies.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

As far as my experience goes of Goorkha and Punjab regiments (I know nothing of the Hindustani corps), I do not see any advantage in either raising pioneer regiments or attaching pioneer companies to regiments. The term "pioneer" has become synonymous with "Muzbi," and the *Hindustani* word for pioneer; and it will be difficult to get the Jat, Sikh, the Dogra, or better class of Muhammadans to enlist for pioneer regiments, for they will connect it with the term "Muzbi." Without being enlisted as pioneers or called "pioneers," my own opinion is that every (Goorkha and Punjab) regiment in the service would readily do the work of pioneers whenever called upon as efficiently and on the same terms of working pay as the two pioneer regiments now in the service.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Pioneer companies in regiments.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

While of opinion that more pioneer regiments than we now have in the army would be of service, yet I should also wish to see a pioneer company in each regiment, as I consider there should always be a certain number of men in every battalion trained to pioneers' duties, so that in the event of the corps being alone on any service, there would be skilled workmen always available if required.

Moreover, if the men of the pioneer companies were thoroughly trained to their work, they could act as instructors to the rest of the battalion; and by that means the whole army would receive a certain amount of training in what is daily becoming a more and more essential part of a soldier's duties.

Lieutenant-Colonel H. Worsley, 7th Bengal Native Infantry.

Pioneer regiments. Pioneers are not required at every point in a line of battle; therefore, if you want to employ them under a company system, you must often detach them from their regiments. With pioneer battalions, the general always knows where to lay his hands.

Pioneers should be low-caste men.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Seeing how useful pioneer regiments are, their number might, I think, be increased with advantage. I would like to see my own regiment made pioneers: their training as agriculturists makes them naturally handy with pick and shovel. When ordered to entrench ourselves in the Hurriab valley, it took us, with the limited amount of tools in our possession, exactly ten hours to encompass the entire camp with a parapet and ditch which would have proved a formidable obstacle to any enemy. Perhaps a pioneer company in every regiment would be more generally useful than increasing pioneer regiments.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

I would suggest additional pioneer regiments, as I do not approve of pioneer companies.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

I am in favor of one or two more pioneer corps being added, not pioneer companies. I think the latter would not be popular in a high-caste Hindustani regiment.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Of additional regiments; but I go further, and consider that every regiment should take its turn at road-making in the hills and be trained to every work likely to be of use in the field.

The present system gives rise to much discontent, the pioneer regiments so often drawing better pay and seeing more service than falls to the lot of many corps.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I should prefer more pioneer regiments; but I think that the fact of the present pioneer regiments being composed of Muzbis might be prejudicial to raising pioneer regiments in the Punjab, except from that class. But call the regiments sappers, and there would be no difficulty. If a pioneer company was attached to every regiment, I don't think that it could be kept up to the mark. In fact, unless it was constantly detached from head-quarters, there would be no pioneer work for it to do.

Lieutenant-Colonel J. Hudson, Commanding 25th Punjab Native Infantry.

I am decidedly in favor of additional pioneer regiments in preference to pioneer companies in regiments.

I think that more regiments of that description are required, more particularly when the fact of our having a long line of mountain frontier is considered.

There is no reason why a pioneer regiment should not be composed of class companies, or any one of our Punjab infantry regiments be turned into a pioneer corps, though hitherto only low-caste Sikhs have been enlisted into these corps.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Of additional pioneer regiments.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattiray's Sikhs) Native Infantry.

Every regiment would be more efficient with one company equipped and trained as pioneers. A slight increase of pay might be granted to this company for the extra work and drill required of it. Or an extra pioneer regiment or two might be raised, one company from which to be attached to every regiment proceeding on service, remaining with that regiment during the campaign. The latter plan would, I think, be best, as in peace time the pioneer regiments could more readily be employed on Government works.

Major R. S. Robertson, 4th N. I. Officiating Assistant Adjutant-General, Allahabad Division.

I am in favor of pioneer regiments in preference to pioneer companies; and consider that it would be very desirable to raise additional regiments of this class, their merits being so well known.

Major R. A. Wauchope, 14th Sikhs.

Additional pioneer regiments. This branch of the service would not be popular with Sikhs, as the name "pioneer" is always in their minds associated with that of "Muzbi."

Major A. C. W. Crookshank, 32nd Pioneers.

I am of opinion that a certain number of pioneer regiments are indispensable, as, when properly trained, they form a valuable addition to the sapper force without weakening the infantry. I would certainly not add more than three or four in addition to the existing two to the Indian army.

But with this addition I would like to see every regiment carry its entrenching tools on its back instead of on camels. In the last campaign the entrenching tools of a regiment required 9 camels; and so cumbersome were the loads, that they were relegated to the baggage, and were not therefore forthcoming when wanted. The present entrenching tool is a great heavy, clumsy weapon, double the weight of, and not to be compared to, the pioneer tool. I would suggest that one or two companies in each regiment carry a light pioneer equipment, lighter even than the pioneers carry, and that the companies so equipped do the digging work required during their tour of duty, which should last from three to six months, and in a campaign perhaps less. The weight thus added would be 6lbs. per man; and he might be relieved of 30* rounds of ammunition out of his 70, and be kept generally as the reserve of the battalion.

In this way the men with the tools would be properly trained and have hardened hands; whereas the present farce of turning out a company once a year to dig a shelter-trench gives no practice, and the result is that a few minutes' work knocks the men up, and a howl is at once raised for 'pioneers.' The system I propose would meet the tactical views of the present day, which are against *speciality* corps, requiring all to be ready for any work, and which lay great stress on the influence of earthworks in the battle-field. The mere fact of one or two companies being so equipped need not prevent the other companies from taking a turn on the works when wanted.

Pioneer companies should take their share of all save detached duties.

Captain H. D. Hutchinson, 40th Native Infantry.

I would have more pioneer regiments.

Colonel R. Sale Hill, Commanding 1st Goorkhas (L. I.)

I think it would be better to have additional pioneer regiments.

Major A. Bhatia, 2nd Goorkhas.

Decidedly in favor of more pioneer regiments. Considering their usefulness and past services of the 23rd and 32nd Pioneers, it is a matter of surprise that more of such regiments have not been raised. Pioneer companies would not answer. Men of other companies would look down on them and their work, and begin to think that using the spade was beneath their own dignity; whereas every effort should be made to lessen this feeling as much as possible.

Major F. F. Rowcroft, 4th Goorkhas.

I would not increase the number of pioneer regiments, but I am in favor of adding *pioneer companies* to certain special regiments. The pioneer company should be separate from the regular battalion companies on field service, but in *quarters* might parade for drill and

* 3 lbs. 6 oz., I think.

Colonel R. Blair, 3rd Native Infantry.

Colonel H. Boisragon, Commandant 4th Sikhs.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Lieutenant-Colonel B. R. Chambers, Commanding 6th P. I.

Major R. B. P. P. Campbell, Corps of Guides.

Major A. G. Ross, Commanding 1st Sikhs.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

Colonel W. Osborn, Offg. Comdt. 9th Madras N. I.

Colonel G. Hearn, Commandant 16th Madras Native Infantry.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Colonel W. A. Gibb, Commandant 25th Madras Native Infantry.

Lieutenant-Colonel F. H. Tyrrell, Commanding 37th Madras Native Infantry.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

Major E. Faunce, Commanding 14th Madras Native Infantry.

Brigadier-General H. F. Brooke, Adjutant-General Bombay Army.

exercise mixed with the battalion companies. Pioneer companies would be well suited to Goorkha regiments, but would, to be efficient, require an extra establishment of Native and non-commissioned officers.

I prefer four or more men per company as pioneers.

No; not "pioneer" corps, "Muzbis" called as such, which has in this country come to mean men enlisted from a lower class and caste. But I would have all corps, as far as is practicable, instructed in these (now more than ever) necessary duties. Certainly one company per regiment taught this work.

I certainly would not have pioneer companies in regiments. All the men in a regiment ought to be exactly on the same footing. Pioneer companies would be the cause of jealousy and bad feeling.

Of additional pioneer regiments. The change would require to be made with tact, as the existing "pioneer" regiments being (I believe) mainly composed of low-caste men, it should be clearly explained to the men of the regiments which Government purpose to equip as pioneers that an honor is conferred, and that their claims to be sent on service are greater than regiments not so equipped.

I think additional pioneer regiments would be more advantageous than pioneer companies in regiments.

Additional pioneer regiments, if any more are required. A Native regiment will do any work required willingly and cheerfully, as has been proved over and over again. To attach pioneer companies to them would be apt to make the men in other companies fancy that these men were specially meant to do pick-and-shovel work. Hence would arise jealousies and difficulties that had much better be avoided.

Additional pioneer regiments. The whole regiment should be alike, and every man should be ready to do as his fellows do. I dislike separating off companies, and it is an especially bad thing to do as regards digging. At present all dig; but if companies were put apart to labor and dig, the other companies would not care to do it. Every man in a regiment should do all work required of the regiment. I think Government should make many more regiments pioneer regiments.

I am in favor of pioneer companies in regiments; but I think it would add greatly to the efficiency of the army if every regiment in the service was instructed under engineer supervision as sappers and pioneers, and if as much attention was devoted to such instruction as is now devoted to musketry.

I am in favor of a pioneer company in every regiment.

I do not see that any good could be obtained by additional pioneer regiments. Every man in Madras regiments can use the pick and shovel, and turn his hand to any kind of work. My men built the lines at Nowgong, and are now helping to build the lines here.

I am in favor of a pioneer company to each regiment. Employment might be found for the men on the station roads and public buildings.

There are no pioneers in the Madras army. A few might be introduced into each regiment with advantage perhaps; but the whole of a Madras regiment, if given the tools at once, becomes a working party, and I don't know what more pioneers could do.

I admire the pioneer regiments of the Bengal army that I have seen very much, and think them most useful corps.

I think it better to have separate battalions of pioneers than pioneer companies in regiments, because I think battalions should be uniform in duty and equipment, and also because you are more likely to get the right stamp of men when they are kept separate. We cannot get recruits of the Madras sapper class in our Madras infantry regiments.

There are none in the Madras presidency. The only pioneer regiment is the corps of sappers and miners.

Strongly in favor of a larger proportion of pioneer regiments.

Neither of these arrangements seems desirable. All regiments should be accustomed to, and required to perform, manual labor on military works.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
Light Infantry.

I think a pioneer regiment to be a most useful body of men from what I saw of the 23rd (Bengal) under Colonel Chamberlain in Abyssinia.

No such regiment exists in the Bombay army; but I am strongly in favor of one or more.

I think pioneer companies would be thrown away; but four men or even two per company to each regiment equipped as pioneers would be of much advantage. I would have them properly instructed as sappers.

Colonel S. Edwardes, Com-
manding 2nd (Prince of Wales'
Own) Grenadier Regiment Bom-
bay Native Infantry.

I am in favor of additional pioneer regiments. I am of opinion, however, that all infantry regiments should be instructed more than they are at present in throwing up earthworks, constructing obstacles, making roads, &c. There is always a great deal of time and labor lost owing to the ignorance of the men and the want of practical superintendence. I would recommend two pioneers per company and a non-commissioned officer in charge for each regiment; the whole of these men to be thoroughly well trained in a sapper corps and to hold certificates of competency. They would simply be pioneer instructors and draw an extra allowance.

Colonel W. Bannerman, 4th
Bombay Rifles.

I am in favor of pioneer regiments, and not pioneer companies in regiments.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native
Infantry.

I have had no experience in either, but am of opinion that a pioneer company would be most useful in a regiment, the instructed men acting as foremen of gangs in the event of road-making or entrenching work having to be done.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

Pioneer companies in each regiment or battalion would be preferable to more pioneer battalions.

There are no such battalions in Bombay.

Colonel R. Mallaby, Command-
ant 13th Bombay Native Infan-
try.

I am not in favor of either. What appears to me to be wanted is a few skilled men, well trained, as superintendents of work in field and cantonments; the regiment itself supplies the labor. I think 10 or 12 thoroughly trained men would be all that would be practically necessary per regiment.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

I am; they are most useful regiments, not alone in war time but in peace, when they might be employed occasionally on public works. I would also have a pioneer company to all regiments well practised in the duty of a sapper, the non-commissioned officers of which should be skilled artificers.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

There are no pioneer regiments in the Bombay army; but I consider it would add to the efficiency of Native regiments if a pioneer company were introduced in each.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Yes, decidedly, of pioneer regiments and a pioneer company in regiments, not pioneers. If this latter cannot be carried out, there ought to be pioneers in every regiment, somewhat the same as in British infantry. I believe also there ought to be more distinguishing badges and titles given to Native regiments. Any corps proceeding to a foreign country on service should get a badge for it; and any regiment doing good service on a campaign should be made grenadiers, pioneers, light infantry, rifles, or fusiliers. There are no fusilier regiments in the Indian armies; and I would arm such regiments with short rifles. I am aware a great number of distinguishing badges, such as regimental buttons, have been done away with in the home service; but I view this as a great mistake and a want of knowledge of human nature, as anything which promotes *esprit de corps* can hardly be over-estimated, and such distinctions most undoubtedly do to a considerable extent. The Natives of India are particularly fond and proud of them, and besides they are very cheap.

Lieut.-Col. O. V. Tanner,
Commanding 29th Bombay N. I.

No; I think all regiments should be taught the use of pioneer tools.

33. Do you consider that it would be desirable to obtain a younger class of men as Native officers than is realized under the present system; and if so, what plan would you suggest?

Colonel J. Doran, Command-
ing 27th Punjab Native Infantry.

I consider that the Native officers are, as a class, far too old, and that it is most desirable to introduce a younger stamp of men. At the same time, I think the remedy lies in a great measure in the hands of commanding officers of regiments, who, by a more careful selection of non-commissioned officers, have it in their power to fill up the commissioned grades by younger and more active men than are generally to be

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

found amongst Native officers. The more rapid promotion is made, the more likely are good men to be attracted to the service.

I consider all my Native officers young enough. As soon as one becomes inefficient, I pass him on to the invalid establishment; and I am very careful not to promote any who from age or any other cause are likely to be inefficient. The commandant is in fault when the Native officers are too old.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

Do away with the grade of jemadar; give commanding officers full power to promote to subadar *the most fitted man*, merely requiring confirmation of Government without questioning his selection; direct commission men now obtained are quite young. The three of this class in this regiment are about 24, 25, and 28 years of age.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Without advocating the retention in the service of men who are past useful work, I am of opinion that, generally speaking, a Native officer should be of mature age and of reasonably long service. My best Native officers, and I have some *very good* ones, are elderly men. Promotion by selection might advantageously be introduced into the army.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

I am of opinion that if the number of European officers, as suggested in answer to question 4, were always kept up in each battalion, that is a captain to each double company, and subaltern to each single company, and the pay of the non-commissioned ranks increased in proportion to the duties now required of them, the Native officers of companies might with advantage be done away with altogether; and the chain of responsibility between the European officers and the non-commissioned officers would thereby be better maintained than at present.

But if this is not considered to be practicable, then certainly I think that the Native officers should be younger men than is now generally the case. In fact, promotion to the commissioned grades from the ranks should be the exception and not the rule, the majority of the Native officers being obtained as suggested in answer to question 28, and promotion from the ranks given only for distinguished service in the field, or on account of marked ability and energy.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Undoubtedly. But under a system where men are compulsorily transferred to the reserves after 15 years if sepoys, and after 20 years if non-commissioned officers (*vide* answer 18), the Native officers will necessarily be younger, and probably quite young enough.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

I do not think young officers are the unmitigated blessing that many people regard them. I must not be understood to prefer very old officers; but there is a medium of age, say from 35 to 45, which, whilst it gives experience and inspires confidence and respect, is yet not too advanced to undergo fatigue and hard work. Promotion by selection could always secure officers being men of about that age. I have not found that old heads on young shoulders are more numerous amongst soldiers than other people.

Lieutenant-Colonel L. H. Williams, Commanding 14th Sikhs.

I certainly think a younger class of Native officers is desirable; and I recommend that commanding officers be allowed more power in choosing men from all ranks to fill the commissioned grades, men showing fitness for the position of Native officers being promoted more rapidly through the non-commissioned grades.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

No; men of a certain age are required, so as to have weight and influence with their juniors. Young men are smart, active, and showy on parade. Still I think at a difficult crisis they would often fail to maintain discipline.

Lieutenant-Colonel R. G. Rogers, Commanding 20th P. N. I.

No; the present system, properly worked, gives sufficiently young men.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I think, now that the full rate of pension is given after 32 years' service, we can always, with an occasional direct appointment, have our Native officers sufficiently young. I am not in favor of too many young Native officers. The younger men may look smarter, but they are not always really so; and the older men have more influence with the sepoys, and act as a sedative to the younger men. The non-commissioned officers of the Native army are, in my opinion, very badly paid, and, if all hope of promotion is taken from them, they will become discontented.

Lieutenant-Colonel J. Hudson, Commanding 28th Punjab Native Infantry.

The advisability of having a younger class of men as Native officers is beyond all question; but the best means of obtaining them is not so clear.

My own idea is, that by gradually bringing in a certain number of young Native gentlemen with direct commissions, and at the same

time exercising more care and discrimination in the selection of men for promotion from the non-commissioned ranks than is at present customary, we should soon obtain what we want.

The great difficulty is to persuade commanding officers that the fact of an old soldier having worked his way to the top of the roll of havildars does not of itself constitute a qualification for the position of Native officer.

In the first place, a limit as to age should be fixed. No man should be promoted to be a Native officer who is beyond 35 years of age. I am persuaded that if the seniority system were less rigidly adhered to, and merit more considered, we should soon have a more efficient class of men as Native officers.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Under the present system, a Native officer enlisted as sepoy at 18 or 20 becomes entitled to a retiring pension after 32 years, or when about 50 years of age. Being a selected man all through his service, he should not under ordinary circumstances be before that age inefficient from age or infirmity, even for active service, while quite fit anyhow for the 2nd or depôt battalion. If half the Native commissions were given direct to young Native gentlemen, and half, as formerly, to men from the ranks, a judicious admixture of the thoroughly trained soldier of middle age and the younger and more eager aspirant would be obtained. Commanding officers having a free choice of selection for the commissioned grades of the *best* men, irrespective of service, would also help in improving the stamp of the Native officers raised from the ranks.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry.

Too young Native officers are apt to be wanting in weight and influence with the men. If commanding officers are empowered to use their own judgment in promoting to jemadar the best man among the havildars without any reference to his standing on the roll, there would be no fear of the commissioned ranks being of too great age. Failing the kind of man among the havildars, there is always the head-quarter list of candidates for direct commissions to fall back on.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I certainly do. As to the means by which this might be effected, I would submit that a great deal rests with the commanding officer, who has it in his power to promote men of a certain age and standard of efficiency. Much might be done by reducing the period of service for pension in the commissioned grades, and compelling Native officers who are not every way qualified to retire after that period is reached.

Major R. A. Wauchope, 14th Sikhs.

By insisting on commanding officers promoting only young men and passing over without sentiment those who do not in every way promise to become first-rate Native officers.

Major A. C. W. Crookshank, 32nd Pioneers.

It would certainly be desirable to have generally a younger body of Native officers; and to ensure this, Government have only to express the wish, and the Adjutant-General's office to enforce it. The question seems to imply that the age of Native officers is due to the existing system; it is due to a past system which up to within the last 6 or 7 years forced a seniority system upon commanding officers; for even when selection was recommended, it was hedged with so many difficulties in the scrutiny awaiting the promotion rolls, that commanding officers refrained from running too far down the list. It was forgotten that where a non-commissioned officer might be perfectly fit for promotion this year, he would be utterly unfit for his position 5 or 6 years hence. This is more generally admitted now, and we are on a fair road towards improvement.

But I would press upon the Commission not to run away with the idea that the young Native officer is the *sine quâ non*, the fact being that the young Native officer in the absence of clan superiority is next-door to useless from want of influence and professional knowledge, and he fails to command a ready allegiance from the grey-bearded sepoy or non-commissioned officer.

A few general rules need only be added, *i.e.*, recommendations for jemadar should be confined to men with service from 10 to 20 years, and for subadar from 15 to 25. I would not promote older or younger. Some such proviso, coupled with a voluntary pension after 21 years, (obligatory when unfit) would soon reduce the age of Native officers to reasonable limits. Efficiency is of course most essential, but no less so is contentment in the various ranks of the regiment, and the certain knowledge of all reasonably ambitious hopes being realized.

Captain H. D. Hutchison, 40th Native Infantry.

Yes, most certainly. Promotion by selection should be the rule. At present commanding officers' hands are tied by the seniority rule; and as long as a man has a clean sheet, and is "fit," he cannot well be passed over. It should not be a question of "who is fit" or "unfit," but of "who is the *best*." If it were an understood thing that merit should be the guide in future, and not seniority, it would be a great incentive to every man to do his *best* at all times.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

As far as Goorkha regiments are concerned, I would obtain Native officers by selection from the most qualified; but as Goorkhas go in for long service, they would in any case be probably much older men than would be found in other regiments.

Major A. Dattye, 2nd Goorkhas.

Certainly; but I think the working of G. O. No. 31 of 1878 regarding compulsory invaliding of men of over 32 years' service will have the desired effect.

Major F. F. Rowcroft, 4th Goorkhas.

Yes; most desirable in the ordinary Native line regiments. A younger class of men for Native officers could be procured by giving a larger number of direct commissions to young men of good family, also if commanding officers would not, as a rule, adhere so strictly to the *seniority system*. There are plenty of men in the ranks low down the roll far better fitted for promotion than their seniors. Scores of men are promoted every year to be non-commissioned officers and Native officers for very often no other reason than that, "Oh, he is not a bad character; he is not very bright; but there is *nothing* against him," &c., quite irrespective of their qualifications to *command men*, and to *enforce* their own orders and those of their superiors. I am of opinion that, in *Goorkha* regiments more particularly, the *seniority system* should be ignored; for it is amongst some of the very youngest soldiers in the ranks that you will find the best educated, the smartest, and most efficient men, particularly amongst the better class of *line boys*, who have had in most cases the advantages of a fair English education in the regimental or other schools. These are the men best fitted for promotion.

Colonel R. Blair, 3rd Native Infantry.

Yes, I do; and would suggest that commanding officers be allowed to recommend non-commissioned officers of all ranks who are fitted for promotion to commissioned officers.

Colonel H. Boisragon, Commandant 4th Sikhs.

It would improve the status of the corps, and be a *military* advantage as respects drill, &c., &c., but politically dangerous. Financially, we cannot revert to the British officer system, and therefore Native officers must be retained; otherwise I would dispense with them—certainly that of subadar or jemadar, one or the other: for further detail, *vide* reply to question 28.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

I would certainly retain Native officers in the service till they got past their work. Young Native officers are generally smarter on parade than old ones; but they have not the same tact and experience; and often fail in the management of the men. On service I prefer the old ones; many of them have nothing whatever to learn from us in that respect.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

No; I do not. I advocate promotion going in regiments; but old men who are likely to break down should not be selected.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

In very many instances it would be desirable to see men reach the commissioned grade at an earlier age. If a reserve system was introduced, a certain number of Native officers would probably be enrolled in it; and this would tend to accelerate promotion.

A small retiring pension, which Native officers could avail themselves of at pleasure, after fixed periods of service, would be looked upon as a boon, and would help promotion.

A Native officer who happens to be strong and healthy, but who wishes to retire, is entitled to nothing, even though he may have done good service to Government for a round number of years. This seems somewhat hard.

Major R. B. P. P. Campbell, (Queen's Own) Corps of Guides.

I consider the majority of Native officers (at least in my own regiment) do their work exceedingly well, and I look upon them as very valuable servants of Government. Too many youthful Native officers would not do, as they would not have sufficient influence with the men. Who ever saw a "jirgah" of a tribe or village composed of young men?

The late order enabling commanding officers to recommend the retirement of Native officers of 32 years' service is quite sufficient to prevent the Native officers of any regiment becoming too ancient.

Major A. G. Ross, Commanding 1st Sikhs.

Where Native officers are old and broken, unable to march and keep up, or where their brains have dulled, I do consider a younger class desirable. But in many corps the Native officers are not too old. If bringing in of direct commission-holders would make the average younger in years, then old broken men ought to be made to take their pensions. Others again might join the reserve (*vide* pension proposals), question and answer No. 20.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I do not think it would be advantageous to the State or desirable to place young aspiring men into the grades of Native officers; for the absence of hope for further advancement and their subordinate position would lead to discontent.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

It would certainly be desirable to obtain a younger class of men as Native officers than there are obtainable under the present system; and I would recommend that every Native officer after 50 years of age should be transferred to the pension establishment.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

No; I have answered this in number 28. What more is wanted? The regiments are as good as they can be; and good men (and many there are) would be disgusted at being superseded by youths, perhaps smarter than themselves, but with less weight and character. Good men look forward to some reward. Our Native officers are not now too old. Perhaps subadar-majors in some regiments are of long service; but it is not desirable to have a man in that position too young.

Colonel L. W. Buck, Command-
ant 20th Madras Native Infantry.

In my regiment the ages of the Native officers vary from 41 to 52 years. I find them fairly strong and active. It would be an advantage to have them a few years younger; but I do not see how the result is to be obtained without increasing the pension establishment more than would be advisable. Native officers are all picked men; and should preserve their health and strength up to 50 years of age.

Colonel W. A. Gib, Command-
ant 25th Madras Native In-
fantry.

I think it is essential that Native officers should be sufficiently young to be active; but this is not determined by mere age or length of service, some men at 50 being physically younger and better men than others of only 45 or even less. I would make the retirement of Native officers compulsory after 32 years' service, unless the commandant, certified that they are fit for another term of three years' service, at the end of which they should positively go. But with the present work and rate of pension, I think most of them will be quite willing to go after 32 years' service.

In the case of pensioners, there should be an intermediate rate of pension between Rs. 15 and Rs. 25; and also in the case of subadars. Selection is now the rule; and if acted up to, the Native officers ought to be young enough.

Here I may perhaps be permitted to say that the pay of non-commissioned officers, including lance-naiks, requires readjustment.

To begin at the bottom, I think a lance-naik should get at least Re. 1 extra. At present, although he has a great deal of responsibility and hard work (naiks and lance-naiks have more guard duty than any other grade in the service), he actually in many cases draws less pay than a private. For instance, a lance-naik of five years' service draws Rs. 8 pay; a private of nine years' draws Rs. 9, and of 15 years' Rs. 10. This ought not to be.

I should like to see the pay of the non-commissioned raised even by reducing one Native officer per company and utilizing his pay in that way, and a British officer posted to each company.

Lieutenant-Colonel F. H.
Tyrrell, 37th Madras Native In-
fantry.

I think it would be desirable; and in the north of India I would have a military college where young Native gentlemen, candidates for commissions, should get a practical training for the army, and should be given commissions after serving as probationers for a certain time in the ranks.

In Madras we can get no better men than we get now, that is men from the ranks, and no better nor worse than the men whom they command.

Lieutenant-Colonel P. A.
Carnegy, 39th Madras Native
Infantry.

We want a younger class, and we are making efforts to obtain such in 39th by strict examinations for promotion to grade of havildar in parts i, ii, and iii, F. E. &c., &c., by a board, and then by selection from these again for Native officers by examination. If wing commanders report unfavorably on a naik, he is not examined for promotion to havildar. The same course is pursued with the havildars, points being given for answers. In this way it is hoped we shall succeed. The non-commissioned officers did not like the system at first; but as they are examined by European officers, and points given according to answers (4 being the highest for each answer), they have become reconciled to it. I think this system might be extended with great advantage to the army generally by having a garrison instead of a regimental board of examiners for promotion to Native officer. I think they should be examined on parade as well, points being given for words of command, for correct drill, &c., &c. The havildar obtaining the highest number of points in all the subjects to be promoted.

Major E. Faunce, Commanding
14th Madras Native Infantry.

The subject of this question is closely connected with reply 26 (clause viii) as to suggestions for the improvement of the efficiency of the Native army, and should be taken with it. An improvement in the stamp of Native officer, men of some little education, trained to show some self-reliance, self-confidence, and last, but by no means least,

younger men, is perhaps the most crying want of the Native army, next to permanency amongst the European officers. The Native officer of the present day is paid very highly for the performance of duties which it is a pretence to say he, as he is at present, performs or can perform. As a class, he is utterly wanting in education, self-reliance, and impartiality. The first

no one will pretend he has. The second and third I ask how can he have? He has been in leading strings all his life, till in his middle, nay, almost old, age he is promoted. The system under which he grew up called for no exhibition of self-reliance or self-confidence, but rather repressed them; and as to impartiality, how can a man with his family ramifications throughout his regiment, and who spends 20 out of 24 hours in the lines in the midst of all the squabbles and scandals from which his connections and family are not free, suddenly assume the dignity and show the impartiality his position require, because he has donned a red coat and sword? I say, with a strong sense of duty, because of that it is not what is hoped, that the wing commander and not the Native officer commands each of the four companies of his wing, and does the entire work, to the minutest detail almost, that he did as commanding a single company in former days. He should be chiefly a supervising officer; he is actually the executive. To obtain younger Native officers, if the present system of promotion is to be maintained, the plan I would suggest is detailed in clause viii of reply 26; but I would advocate another system altogether. An essential in any case is that Native officers should be pensioned on reaching 50 years of age. It now frequently happens that men who are admittedly quite unfit are allowed to remain on solely for the purpose of earning a higher pension, not by giving efficient service in return, but by living a certain number of years—a negative merit a Government should hardly be expected to reward its servants for. In no service in the world, in no profession, can men now obtain advancement without fitting themselves for it except in the Native army. A British officer has to pass a competitive examination before he can obtain a commission; and till he has reached the grade of major, he has to pass successive examinations to show that his professional attainments fit him for promotion. Surely it is not less necessary that the Native should prove by some test that he is qualified for the highly paid and honorable position to which he aspires; and even in the Native army the only rank for which no test of any kind is required is that of Native officer. In the civil administration Natives who have passed comparatively high tests eagerly seek employment in posts the salaries and pensions of which are far less than those of a Native officer; and yet there is no dearth of candidates, but rather an excess. I would lay down tests—(a) educational, and (b) professional. Competitive examinations to be held at certain periodical intervals; tests papers to be furnished from army head-quarters, the professional ones being framed by selected regimental officers. Part of examination to be practical, part written. Any havildar or naik to be allowed to compete, provided his commanding officer permits. His refusal to be final and unquestioned. A man with sufficient education and the drill-book by heart might not for other reasons be fitted to be a Native officer. Jemadars should be required, under similar restrictions as to commanding officer's permission, to pass an examination (not competitive) for promotion to subadar.

A very essential thing is that men promoted from the ranks should not be posted to their own regiment. A list of passed candidates would be at head-quarters, from which they should be posted to vacancies as they occur. With us the men and their families live in lines. A Native officer may have, in fact always has, connections or relations in his own or other companies. He is forced to live in these lines cheek-by-jowl with the very privates of his company. His womankind quarrel about a trifle as other women do, their respective owners, one perhaps a subadar, the other a private of his company, are helplessly drawn into it. Now, under such circumstances, can a man be expected to maintain his position, and to perform his duties with impartiality? Native officers should not be permitted to live in the lines of a regiment, although of course they must be near them.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

It is very desirable that the Native officers should be efficient, but it is of even more importance that the sepoys should be contented; and this they could hardly be if the prizes of the service, commissions as officers, were given exclusively either to very young soldiers or to individuals by direct appointment. Much might be done towards reducing the age of Native officers if commanding officers would exercise more freely their right of selection in making promotions to and in the non-commissioned grades. Instances have, however, come under my notice where men who had been rapidly promoted from grade to grade, and become Native officers in an unusually short period, failed to prove themselves fit for the higher and more responsible duties. On the whole, I am of opinion that the existing system, judiciously administered by a competent commanding officer, offers as satisfactory a method of filling the commissioned grades as any that could be devised.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

I think the present system now in force in the Bombay army works well—that is, promotion by selection—and needs no alteration.

Colonel S. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment Bombay
Native Infantry.

Yes; but the system advocated in this paper would permit of passing an old man into the reserve and thus maintain a younger set of Native officers. I do not think that, as a rule, very young men make good Native officers. The best are those from 15 to 25 years' service—men who have had experience and seen service, and who are looked up to and respected by the lower ranks.

My experience of Natives and Native officers has led me to the conclusion that they are deficient in the qualities required in a company leader, as the term is understood by us. They make excellent soldiers, but not leaders, being essentially dependent. It is the want of these qualities that has contributed in no small measure to our maintaining our hold on the country, more especially during the great rebellion of 1857; and it is well that it should be so.

It is in the interests of discipline and the well-being of the army in many respects that there should be Native officers; but for leaders the European element must be largely maintained—more so than at present.

Colonel W. Bannerman, 4th
Bombay Rifles.

I am not in favor of a younger class of men as Native officers than is realized under the present system. A very young Native officer has not the control and influence over the men at all times willingly accorded by them to older Native officers. In exceptional cases, or in the case of a regiment ordered on service, a subadar of 23 years' service might be allowed to retire on a pension of a somewhat lower rate than the full pension due after 32 years' service, so as to make room for a younger and more active man.

Colonel G. W. Hanson, Com-
mandant 9th Bombay Native
Infantry.

Native officers are by a late order called upon to retire after 32 years' service. Stagnation in promotion is thus prevented, and officers are not allowed to remain on in the service beyond the age at which they are well capable of performing their duties. I do not consider any further change on this point necessary.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

It is always the interest of a commanding officer to obtain the best Native officers he can. If commanding officers are allowed freely to pick out the best men for promotion, I do not know that anything will be gained by their being necessarily young. I am not an advocate for very young Native officers. If a man is active, intelligent, and fit for his work, as a rule he has better judgment, and is more to be depended on when of more mature age; but every Native officer should be at once pensioned or got rid of if *any way unfit*.

A fixed age or certain length of service does not guarantee *efficiency*; and this alone should decide if a Native officer is fit to remain longer or not.

Colonel R. Mallaby, Com-
mandant 13th Bombay Native
Infantry.

In the Bombay army there is no system which places any restriction on the age at which men may be promoted to Native officer. I have promoted men to Native officers in 13 and 14 years' service. I would do so in less in exceptional cases. I don't think any man should get his first non-commissioned grade under three years, or be less than two years in each successive grade, nor a Native officer under 10 years' service. Under most favorable circumstances you cannot make a Native officer in a day. You have not only to teach him discipline under all circumstances, but he has himself to earn by his life and the justice of his conduct towards the men the respect of the men. This is a matter of time. The early promotion of such men causes no heart-burnings amongst the less fortunate.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Such a system is highly desirable; and can alone be effected by selection, as is the case in the Bombay army.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

I consider the regulations in force in the Bombay army are ample for the purpose of enabling commanding officers to obtain a sufficiently young class of men of Native officers.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Yes decidedly; and have the commanding officer unhampered with rules regarding their selection and promotion. Make them look to him as their only friend, hope, and prop. This, and selection of European officers, was the sheet-anchor and mainstay of what was first called the "irregular system," and we all know what splendid service they performed. But when the whole army was turned into "irregulars," selection was impossible, and the power of the old "irregular" commander was never bestowed on the new one; and with what results we all also know. If the commanding officer finds he has promoted a man to jemadar or subadar, who becomes idle and indifferent—a most common occurrence—let him have the power of making him take his pension; and this will also most effectually stop that pernicious and common habit of anonymous writing.

Lieutenant-Colonel O. V.
Tanner, Commanding 23rd Bom-
bay Native Infantry.

I think that Native officers will be found young enough under the present system of making all retire after 32 years, and those found unfit before.

34. Do you consider that the present uniform of the Native soldier meets all requirements?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

Pretty nearly all; but I consider that a great-coat should be supplied to each soldier by the State.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native
Infantry.

Yes, as regards regiments that wear turbans and loose trousers, except that the warm clothing should be drab, instead of red. Forage caps and tight pants I consider quite out of place and unserviceable. There are certain stations where from excess of cold additional clothing is necessary for daily wear and sleeping; and others where from excess of wet water-proofs are required. These should always be supplied by the State.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

I have no fault to find with the clothing now that it is made up at regimental head-quarters. The coat and trousers should be given together at the *same issue*, and not one in every alternate year; one is new while the other has had one year's wear. Great-coats should not be made an article of half-mounting, but be supplied by Government. The sepoy could then keep himself supplied in stockings, for without stockings it is impossible to prevent men getting sore feet, which constitutes a very serious drawback to the efficiency of regiments.

Colonel E. Dandridge, Commanding 40th Native Infantry.

Yes, excepting in the matter of boots. Government should supply at a fixed price either boots or shoes of English leather and manufacture. Water-bottles should also be supplied; also water-proof sheets.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

No, I consider the present so-called Zouave jacket issued biennially to the Native soldier by no means either useful or becoming. It is cut altogether too scrumpily, and is so tight both across the chest and back, that at musketry when he should have the free use of the body, he appears to be confined.

The tunic with a properly cut "basque" as worn by the *Chasseurs de Vincenne* is a much more sensible garment, as the upper part is made so as in no way to impede the action of shoulders and chest, while the "basque" is low enough to cover and give protection to the loins.

This coat, however, with the blue serge pantaloons, should be retained exclusively for "full dress" occasions. On all ordinary duties, and regimental and brigade parades for exercise and manœuvre, I consider a drab serge frock and pantaloons, the former of the same shape as the serge frock issued to the British soldier, the best dress for the Native army. I consider also that, though it would cost Government possibly a trifle more, this dress might be issued biennially, the red tunic and blue pantaloons being issued together on alternate years with the drab uniform.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

Yes, if only the shoeing question were satisfactorily settled, and if no attempt is made to combine the dress for peace and war. In garrison you want neat, well-fitting coats, gaiters, &c. On service you require underclothing, &c., suitable to the climate and season, with a loose khaki jumper to go over all.

When troops go on service, Government should be prepared to issue suitable clothing gratis.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

Yes, I think it does, except in the matter of boots. On a campaign Native-made boots or shoes barely last a month, and there is necessarily much difficulty in replacing them. Every soldier should be provided annually with a pair of strong English-made boots, and on field service a warm jersey apiece is equally necessary.

Lieutenant-Colonel L. H. Williams, Commanding 14th Sikhs.

Yes, with the addition of a khaki suit of drill to be worn over the winter clothing for active service.

Lieut.-Col. B. J. Walker, 17th N. I.

I think the clothes, especially the coat, ought to be much looser.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab N. I.

No [*vide reports C, C1, C2, C3, C4, C5, C6, C7*].

Report C.

Dated Rawal Pindi, 1st August 1865.

From—LIEUTENANT-COLONEL C. H. BROWNLOW, Commanding 20th Punjab Infantry,
To—The Adjutant General in India.

In obedience to your circular No. 105N. of 22nd ultimo, I have the honor to report, for the information of His Excellency the Commander-in-Chief, that the new pattern Zouave uniform has not yet been issued to the regiment under my command as Government clothing.

The material for coats for 1865-66 has been received and is in course of preparation. The issue of knickerbockers by the clothing department having been suspended and the old pattern trouser offered instead, application has been made for compensation in money for 1866-67, and cotton knickerbockers which can be worn both in summer and winter will be provided for the men.

As to the question of the new pattern uniform being suitable and popular, I am of opinion that the Zouave jacket does not answer the purpose for which it was introduced, inasmuch as it adds neither to the comfort nor the appearance of the Native soldier, who would much prefer the tunic which protects the loins and the neck and is far more becoming to him than the former.

The scant proportions of the Zouave jackets, which perhaps set off a small dapper man, make a stout big one look unsoldierlike and undignified.

A waistcoat or "cummerbund" might improve the dress; but, all things considered, I think the coat best adapted to the sepoy, and one which suits the knickerbocker trousers admirably, is a tunic made exactly like the red serge frock of the British soldier.

Knickerbockers or loose trousers of American drill with short leggings or gaiters reaching to the ankle only and Native shoes have been in constant wear with my men since 1863 (June) and found to answer in every respect, being a costume at once serviceable, nice-looking, and very popular.

The spat or gaiter covering the instep is in my opinion utterly unsuited to the Native and a source of needless trouble to him to keep in order; it also entails the addition to his kit of two pairs at least of half boots which are no use to him except on parade, of which he can ill afford the expense, and which

cannot be compared in any practical respect with the more comfortable Native shoe, cheap and easy to procure, light to carry in havresacks or kit bag, and in harmony with the oriental character of the dress.

In reply to the 2nd paragraph of the circular, I beg to state that a change of color from drab to red uniform would not be popular with the officers and men of the regiment.

Report C1.

Dated Delhi, 31st January 1872.

From—MAJOR R. G. ROGERS, Commanding 20th Punjab Infantry,
To—The Adjutant-General of the Army.

With reference to your memorandum published in division orders of the 26th instant, I have the honor to report, for the information of the Right Honorable the Commander-in-Chief,—

- 1st, that in my opinion the great-coat should be rolled and worn like a horse collar over the left shoulder and with its ends on the right hip;
- 2nd, that puttees or gaiters not attached to the knickerbockers and covering the instep are a mistake, and that after several years' trial in the field and in quarters, I consider the knickerbockers (with stout cloth gaiters attached) worn by the regiment under my command the most servicable and comfortable that can be adopted;
- 3rd, that I believe a stout Native shoe with the stiffening of the heel outside, to be best adapted to the Native soldier. In it the regiment has made long forced marches and has suffered little from sore feet. It is procurable in every city, and is easily taken off to ease the feet or allow of removal of dust or gravel.

Report C2.

Dated Delhi, 16th September 1872.

From—MAJOR R. G. ROGERS, Commanding 20th Punjab Infantry,
To—The Adjutant-General of the Army.

As requested in your memorandum, "Clothing," No. 2597B. of 13th instant, I have the honor to report, for the information of the Right Honorable the Commander-in-Chief, that I consider the white leggings worn by some regiments of Native infantry utterly unsuited for service. Men dislike them as a source of useless trouble and expense. They very soon soil and become uncomfortable and unsightly. They are very liable to come down the legs, and the flap which goes over the foot heats the foot and retaining between it and the instep the dust which rises at each step acts like sand-paper on the bare skin (boots being seldom worn on service). They are very liable to loss when taken off in crossing streams and take long to put on again, especially when the men's fingers are at all cold or numbed. They are not stout enough to protect the legs from thorns.

In fact, of so little use are they, that, as far as I have seen, they have at once been discarded by regiments proceeding on active service or on a march, and were so occasionally even at the camp of exercise, where every attempt was made to keep up appearances.

Report C3.

No. 100, dated Delhi, 21st September 1872.

From—MAJOR R. G. ROGERS, Commanding 20th Punjab Infantry,
To—The Adjutant-General of the Army.

As required by your memorandum, "Clothing," No. 2536B. of 12th instant, I have the honor to report, for the information of the Right Honorable the Commander-in-Chief, that I do not believe that the Native soldier would be benefited by the establishment of a boot and shoe factory at Cawnpore.

On reference to Major-General Turner's report attached to the memorandum above noted, it appears—

- 1st, that the estimated cost of boots and shoes is much higher than the present average (paragraph 8);
- 2nd, that it remains to be proved whether the longer duration in wear of the factory-made boot and shoe will compensate the soldier for their additional cost (paragraph 9);
- 3rd, that with all the best efforts of care and supervision there will occasionally occur disappointments, and objection arise which may lead to dissatisfaction.

These are all points of objection. With reference to the two first, owing to the great rise in cost of living within the last few years, Rs. 7, the pay of a sepoy for the first six years of his service, by no means represents the value it did when that rate was fixed. The sepoy is fully taxed in the provision of the necessaries he has to keep up, and cannot afford to pay for the experience required to prove the advantage of factory-made boots and shoes. The third objection is insurmountable.

Referring again to paragraph 9 of the Major-General's report, I cannot see what portion of his clothing could be dispensed with by the Native soldier in lieu of which boots and shoes could be supplied at the cost of Government.

He only receives a coat one year and trousers the next, and can spare neither. His summer clothing, his head dress, his havresack, boots, great-coat, &c., are paid for by himself. The only point in favor of a Government factory would be cheapness; this is not secured. The boots and shoes cost more, and the harness and saddlery factory gains by disposing of a quantity of good leather unsuitable for harness, &c., at a good price, to the Native soldier, who is to ascertain by experience (at his own

cost) whether he gains or loses by the transaction. If factory-made boots and shoes could be issued free of cost to one or more of the regiments proceeding to the camp of exercise at Hussun Abdool, a committee of experienced officers might judge of their superior durability, and from it of the probability of the success of the proposed scheme as a benefit to the Native army.

Report C4.

Dated Delhi, 11th February 1873.

From—LIEUTENANT-COLONEL R. G. ROGERS, Commanding 20th Punjab Native Infantry,
To—The Officer in charge Adjutant-General's Office, Simla.

In obedience to your "Clothing" No. 362B. of 5th instant, a pattern of the knickerbocker and gaiter (combined), as recommended in my letter No. 6 of 31st January 1872, has this day been forwarded to your address by pattern post. With reference thereto, I have the honor to report, for the information of the Right Honorable the Commander-in-Chief, that they cost on an average from Rs. 1-9 to 1-12, and that they last about 18 months each, that is, a man starting with two pairs requires usually to buy one new pair at the end of that time, the second pair of those he started with being then brought into every-day wear, and the new pair reserved as these were for use on extraordinary occasions, or when his other pair was being washed.

The strap at the ankle is to enable the gaiter to be turned up and fastened above the knee in crossing shallow streams, or when resting at night on service. It interferes in no way with a man's efficiency, and with the string to draw in or loosen the waist of the knickerbocker adds immensely to a man's comfort, especially when as at Umbeyla the regiment had no change of clothes for two months, and had during the whole of that time to be ready to repel any sudden attack at a few moments' notice. The regiment has worn no other trouser for many years during either hot or cold weather. The width of the knickerbockers enables the men to wear what they like under them unnoticed, and the compensation issued to them every second year in lieu of woollen trousers saves them from pecuniary loss.

Report C5.

No. 55, dated Peshawar, 4th April 1877.

From—LIEUTENANT-COLONEL R. G. ROGERS, Commanding 20th Punjab Native Infantry,
To—The Adjutant-General in India.

In reply to your memorandum No. 592B., "Clothing, Native Army," dated 17th ultimo, I have the honor to report, for the information of His Excellency the Commander-in-Chief, that the only order in force in the regiment under my command as regards private clothing is that each man is to possess at least two complete suits, to aid in obtaining which advances have hitherto when necessary been given to recruits on enlistment.

2. This clothing is always of a light description, warm clothing being purchased by very few, and its place supplied in cold weather by a blanket or sheet worn over the shoulder.

3. To lay down any rule for a corps composed of so many classes and tribes beyond that above noted would, in my opinion, be highly inadvisable. Each individual must as heretofore be guided by his own tastes and nationality.

4. In conclusion, the only suggestion I have to offer is that Government be solicited to issue, free of cost, to each man of all regiments serving above Lahore, a good warm woollen jersey to be worn with Native clothes when off duty. This the men cannot afford to buy, and its issue would save the lives of many men who now die yearly from bronchitis, pneumonia, &c., caught in most cases from the habit all sepoys have of throwing off their uniform immediately they come off duty and exposing themselves in light linen jackets when probably heated by previous exertion.

5. A good stout blanket of English make, such as issued to the regiment when proceeding on service to China, 1860, would also be regarded as an incalculable boon. Those then received were treasured for years and only discarded when literally in rags.

Report C6.

No. 19, dated Peshawar, 26th February 1873.

From—LIEUTENANT-COLONEL R. G. ROGERS, Commanding 20th Punjab Native Infantry,
To—The Adjutant-General in India.

As required by your circular memorandum No. 1001, dated 15th instant, I have the honor to report, for the information of His Excellency the Commander-in-Chief, that the brown leather accoutrements used by the regiment under my command since it was raised have been found most serviceable, and that I believe them to be far better fitted for military purposes than those made of buff leather, which in heavy rain have a tendency to become spongy, and which when clean are so conspicuous, that the pipeclay used in cleaning them is almost invariably washed off by regiments proceeding on service.

As to whether the brown leather would prove as lasting as buff, I can see no reason why, if left of equal thickness, it should not be found so, especially as when cleaned with wax as customary; it is much less liable to injury from rain. Its strength is undoubted.

Report C7.

No. 24, dated Peshawar, 6th March 1878.

From—LIEUTENANT-COLONEL R. G. ROGERS, Commanding 20th Punjab Native Infantry,
To—The Deputy Assistant Adjutant-General, Peshawar.

With reference to Adjutant General's letter, "Equipment," No. 513D., dated _____, I have the honor to report, for the information of the Brigadier General Commanding the District, that there is no "Regulation" water bottles for Native troops, and that that usually carried by the British soldiers is, in my opinion, utterly unsuited for the requirements of Indian service for either English or Native soldiers, as being far too small and fragile, and moreover from its shape more awkward and uncomfortable to carry.

Lieut.-Col. F. B. Norman, Com-
manding 24th Punjab N. I.

Yes, now that khaki instead of white is to be the summer uniform.

Lieutenant-Colonel J. Hudson,
Commanding 28th Punjab Native
Infantry.

I think the present dress of tunic, knickerbocker trousers, puttees and Punjabi shoes, as worn by most regiments, meets all requirements; but I think sufficient attention is not paid in Upper India, where the cold is severe, to the necessity for having warm underclothing for the men.

Their Native clothes, which are usually made of cotton, are not a sufficient protection against the extreme cold which is met with during the winter months at many stations in the Northern Punjab, more especially where, at stations like Peshawar and Kohat, the men have much night duty, and are frequently exposed to very inclement weather. I am sure they suffer from want of proper warm underclothing.

Again, I think the great-coats made of common country blanket, which many regiments still keep up, are quite insufficient for a climate such as I have described. Every sepoy in the Punjab should be supplied by Government with a good serviceable great-coat made of stout English cloth; and at all stations above Jhelum the following articles should form part of the kit to be kept up by the soldier himself:—

- 1 warm puttoo vest.
- 1 pair warm puttoo drawers.

Lieutenant-Colonel G. C. Bow-
craft, 35th Native Infantry.

Yes, quite sufficiently so. I think the serge pyjamahs far better adapted for him than the tight trousers still worn in some regiments, and a great improvement would be *pockets* in all pyjamah-pattern trousers for the comfort and convenience of the soldier. A loose fatigue suit of khaki-colored drill, which could be worn *over* his cloth uniform or by itself, would be a very useful and appreciated addition to the sepoy's kit, given once in three or four years. Its present cost is Rs. 3-12 or Rs. 4 per suit.

Lieutenant-Colonel F. M. Arm-
strong, Commanding 45th (Rat-
tray's Sikhs) Native Infantry.

Yes, it meets all requirements in time of peace; and in time of war requires merely the free issue of warm socks, jerseys, &c., and water-proof sheets, as were supplied on last campaign.

Major R. S. Robertson, 4th Native
Infantry, Assistant Adjutant Gene-
ral, Allahabad Division.

I think khaki introduced by a recent general order admirably suited to the Native soldier, and the puttee a good substitute for the gaiter; but I would recommend a loose blouse instead of the present tight-fitting coat.

Major E. A. Wauchopé, 14th
Sikhs.

The skirts of the coat might be longer; otherwise I think it good.

Major A. C. W. Crookshank, 32nd
Pioneers.

No; I think the so-called Zouave tunic is not an appropriate or suitable dress. To begin with, it is impossible to fit it with the ordinary measurements owing to the number of small pieces of which it is made, and which make it difficult to cut, and impossible to alter except by a professional; it is too short, and it wants a collar. The material is needlessly thick, and too hard for warmth, and the color is sombre. The facing stripe down the breast, like the chest of a bear, is a perfect bull's-eye.

I prefer the serge now introduced into the Madras army, and would suggest a loose scarlet serge coat made like a Norfolk coat gathered in sufficiently at the waist, with skirts 8" for a man 5' 10" and a collar $\frac{1}{2}$ " at the back coming to a point in front. It would be warm enough for spring and autumn in the Punjab, and would admit of a "meerzai" or padded coat being worn underneath in winter; the collar and pointed cuffs should be of facing cloth, and the numerous buttons be reduced to 5. This would be cheaper than the present coat, and the saving might be added to the serge knickerbockers, and they be made more full. The serge coat would also be similar to the British infantry serge coat, the war dress of the future in India.

A similar coat should be given to Native officers, and they be allowed to purchase a cloth tunic trimmed more gorgeously than the present one and more like the British officer's tunic: this with full-dress belts to be only used on full-dress occasions. I see no need myself for Government giving Native officers any free issue of clothing; they are well enough paid to purchase it.

So much for the Government clothing; but there are other points which need attention sadly, *viz.*—

I. *Boots.*—The Native army is not sufficiently well shod, and the provision of boots is the greatest difficulty a commanding officer has. In sheer despair my regiment has taken to Native

shoes as the best and most serviceable article obtainable, but though good to march in they have their faults; they are open and have no hold on the feet; a few yards of clayey soil and every shoe is aground. The ammunition boot is liked, but its price is prohibitory, and the Native-made English-shaped boot is brown paper. I have long taken an interest in this matter, and the only solution of the problem I can come to is that Government should start a factory and make the boots, recovering the price from the Native army; the boots not being made on English lasts made to suit English feet, but on lasts made from actual measurements of Native feet. Consult professional tailors and boot-makers, and they will tell you that the Native foot differs as much from the English foot as the Native figure differs, height to height, from the European. We try to drive Native feet and bodies into European boots and clothes, or the old story of the square body in the round hole.

II. Great-coats.—A good and cheap material should be specially procured from England, or the manufacture of puttoo encouraged and improved. Puttoo lined with flannel or good jute would make an excellent great-coat, and the color is first-rate. The coat should be of the Ulster shape, fitting the figure, and have detached cape; in itself a most useful article.

The great-coats should be made and issued to the Native army on payment. At present the provision of a great-coat is a great difficulty, and all sorts of makeshifts in the shape of chogas and blanket-coats are tried.

III. Havresacks should be of uniform pattern, and issued on payment by Government.

IV. Water-tins should be of uniform pattern, copper tinned or block-tin, made to hold a quart of water; issued on payment.

V. Khaki jumpers should be ordered generally and take the form of a blouse, or, what is better, the summer coat should be loose enough to wear over the winter tunic.

VI. Summer clothing of khaki as recently ordered of uniform pattern. Native soldiers are put to much expense in complying with the fancies of commanding officers. The uniform of an army should possess the condition of uniformity. Government should take up the question of the natural-dyed cotton as grown at Nagpore and by the Central India Horse. It meets a great difficulty of uniformity of dye and the necessity for dyeing.

VII. Pugree.—Every Native soldier should have a khaki pugree as his second or warhead-dress.

VIII. British officers.—The dress of the British officer requires modifying to meet the requirements of war. The present full dress is all he wants for ceremonial occasions; and his undress or ordinary parade dress should be adapted for service. A warm and light khaki suit of serge or drill, with cord breeches, Sam Browne belt, brown gaiters, should be his ordinary parade dress, and this with a full dress and an undress for in-door duties is all he needs. On service he should wear the glengary forage cap.

Captain H. D. Hutchinson, 40th Native Infantry.

All regiments have not the same uniform. Every soldier should have the following, and no more:—

A khaki turban with removable distinguishing topknot.

Loose khaki blouse, two.

Khaki pantaloons, two pairs.

Cashmere putties, one pair.

English ammunition boots, two pairs.

A red tunic and dark-blue serge pantaloons.

A great-coat, havresack, and water-bottle.

The red tunic and serge pants should be worn only on guards, orderly duty, commanding officer parades, &c. At all other times and seasons, the khaki should be worn.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

I consider the red cloth coat issued to the soldier is about as bad as it can be: cloth indifferent, coat skimpy and not protecting throat, stomach, or thighs from cold and exposure. Moreover, it has a broad white facing down the front, rendering the soldier a conspicuous mark, which, in these days of arms of precision, appears a great mistake.

The coat should be like the old tunic, with a low collar and covering the fork and stomach, and with only a piping in front.

Khaki is often suddenly adopted on service. All summer clothing should be made quite loose, so as to be able to put warm clothing on under, if wanted.

During late expedition some regiments suffered from the cold greatly, because their khaki uniform had been made so tight, that nothing could be worn under it.

All Native soldiers should wear Native shoes and not mock-ammunitions. I consider that a water-proof sheet should be substituted for a dhurrie in a soldier's "kit," as being much lighter, more useful, and not expensive.

Major A. Batiye, 2nd Goorkhas.

Goorkha regiments should always wear the Kilmarnock cap, and therefore boots or shoes of English pattern as at present. The rest of their uniform is also suitable, but khaki required for service on North-Western Frontier regiments wearing the pugree, which is a suitable head-dress for the plain's men, might with advantage use Native shoes and knickerbockers, like those of the 20th Punjab Infantry, which have not the large detached gaiters coming over the boots, but short gaiters attached to the knickerbockers, and reaching to the ankle only which it leaves bare. The *attached* gaiter would probably only answer in khaki, not white uniform.

Major F. F. Rowcroft, 4th Goorkhas.

I think the present uniform very good, but I would abolish all kinds of *gaiters*, substituting *cloth puttees* instead. I consider the *Native shoes most unserviceable*. They come off in heavy ground, or get filled with sand or stones. I consider the English service *pattern ammunition boot* the very best, *not to tie up with laces*, but to be fastened with *strap and buckle*. Native soldiers greatly appreciate them. I can at any rate speak from experience as regards the men of my regiment, the 4th Goorkhas. The men eagerly buy English ammunition boots whenever they have the chance, giving, too, comparatively high prices for them.

Colonel B. Blair, 3rd Native Infantry.

Yes; but I think a loose coat, the same as worn by European soldiers, but made of the present description of cloth and slightly drawn in at the waist, so as to allow the belt to fit, would be better.

Colonel H. Boisragon, Commandant 4th Sikhs.

Yes; present uniform satisfactory. Great-coats with *capotés* should be supplied by Government, and not, as at present, be a part of "half mounting" cut from the men; socks, gloves, and poshteens, &c., &c., to be included in the latter; as most of our future campaigns will be in cold climates.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

The only thing we get from the Government is a coat made of cloth, as we draw compensation for trousers. The coats are no use to the men at all. They are worn on parade sometimes, and on night duties, but they are never worn on service, on the march, at target practice, or anywhere where the men require to use their strength. So far as this regiment is concerned, the money spent by Government on cloth coats is absolutely wasted. I wish Government would give us the means of getting cheap and really good great-coats like the English soldiers wear instead of the present cloth coats.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Yes, with exception of tunic, which is too tight; in place of it I would advocate the introduction of a Norfolk jacket with cuffs and collar of regimental facings; the jacket to be sufficiently loose to admit of jersey or wadded jacket being worn underneath in winter. In cold climates a free issue of poshteens should be made triennially.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

The cloth tunic is warm and serviceable. The cloth trousers are pretty unanimously condemned by officers and disliked by men on this frontier, even where the cold is much more severe than in other parts of India; they rub the men, and are too warm to march in. Drill pyjamas or trousers with either gaiters or puttees are much more useful, and when the body is kept warm, Natives do not seem to feel cold about the legs.

A good pattern shoe or boot has still to be hit upon for the Native army.

Major R. B. P. Campbell, (Queen's Own) Corps of Guides.

I think if Government issued an order laying down that cloth uniform should only be worn on special occasions, and ordinary duties performed in half-mounting uniform, there would be no necessity for issuing a cloth coat one year and a pair of trousers another. By being only worn on special occasions, the clothes would last longer; and what Government saved by this they might expend in providing blue sailor's guernsey frocks.

The men could wear these under their half-mounting, and, with the help of great-coats and poshteens, would be enabled to ward off pneumonia, even in Afghanistan.

Major A. G. Ross, Commanding 1st Sikh Infantry.

Depends on what the uniform is. Various corps have varying uniforms. I think white spots, short skirted jackets, under waistcoats, and *quasi-English* boots, quite unsuitable. Hot and cold weather all uniform, but especially that of foot-men, should be loose. In hot weather air gets in. In cold, clothes can be worn underneath. I would clear our minds of the association of smartness with tightness. Soldierly bearing, well kept and cared for arms, neatness in wearing clothes, should be the tests of smartness of appearance. All pipeclaying and such artificial aids should be abolished.

Foot covering for Natives is a difficulty. Even good English boots do not work without stockings. Country boots give sore feet. Native shoes are best for work, but they do not stand wet, and they get easily knocked to bits, although a mochie can keep them going for months, even when work is heavy and rough.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I do not consider our present uniform meets all requirements: our foot covering is very faulty. The coat-collar is equally faulty.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

The present uniform is not adapted to the Native soldier. I would suggest that a dress similar to that worn by the French Zouave regiments be adopted for the Native army, as being calculated to give the Native soldier more ease and freedom in his movements than is possible for him in his present uniform.

Colonel G. Hearo, Commanding
15th Madras Native Infantry.

This is a matter of opinion.

Taking all things into consideration, I would not change. Some recommend Zouave costume; it would be easy and comfortable; but it would make the men careless, slouch, and unsteady. Some suggest knickerbockers. These would be untidy; better turn up the trousers when required. Men in present uniform have done good service; they like it, but do not understand changes. In the present uniform the men believe they are Government soldiers.

Colonel L. W. Buck, Commandant
20th Madras Native Infantry.

No; the Native boot worn is badly made and useless in wet weather. I would substitute a well-made laced boot, if possible, of English make, to be supplied by Government, but paid for by the men; it would last much longer and prevent sore feet. The knickerbocker pattern should be worn instead of long trousers; the lower limbs would be much freer.

The boat-cloak in use is inconvenient for marching in, and does not keep out the wet. I would substitute a cape reaching to the hip joint of water-proof material, and a blanket or Native *cumbly*, the latter for use on guard or on field service instead of the carpet.

The head-dress should be the Native turban.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

It can certainly be improved upon. The men should have English ammunition boots and woollen socks for the field. Shoe-bites would then be reduced to minimum, as I know, by experience in my own regiment, no country-tanned leather will stand wet. In wet weather boots made of it lose all shape and fall to pieces. They are also of bad shape and hurt the feet.

But sepoys cannot afford to buy English boots. In the Madras army turbans might perhaps with advantage be introduced instead of the small caps now worn in it, but, in that case, the colors of the coats should be removed, and the cut of the coat itself be in some way *orientalized*. It could be easily done, I think.

If knickerbockers be introduced, the gaiters worn should only just cover the tops of the boot, and the best pattern of boot, I think, is one called "Fuggs' moccasin," which fastens with two straps and buckles. This boot is easily put on in the dark, a great consideration for a soldier, whereas in the lacing boots the laces are constantly breaking, and it is besides difficult to lace them in the dark.

Boots to the infantry soldier are of the very first importance. If the Native army had them, I don't think there is much fault to be found with the rest of its dress. Of course, if sent to a cold climate, the Native army must be provided with warm inner clothing.

Lieutenant-Colonel F. H. Tyrrell,
37th Madras Infantry.

The Madras Infantry sepoy is at present dressed in the same uniform as the British soldier, only wearing a forage cap always instead of a helmet. I would have the dress altered as follows:—

The tunic to be looser and to have no standing collar. The trousers to be looser, and to be made with a waist-band, obviating the use of braces which the men now wear, and to be narrowed above the ankle so as to be easily gathered on occasion with a cloth or canvas gaiter. The white-cotton tunic worn by Madras troops in the hot weather needs no alteration.

Lieutenant-Colonel P. A. Carnegie,
89th Madras Native Infantry.

I think the uniform for a Madras sepoy of cloth tunic and serge trousers not only most unsightly, but also quite unsuited to a tropical climate such as we have nearly all the year round.

Major E. Faunce, 14th Madras
Native Infantry.

No; the Madras Native soldier is dressed up in badly fitting imitation of the British soldier. A Zouave jacket, loose trousers to knee, gaiters coming over foot, and shoes, and a turban would be more suited to him: his boots are especially bad, rubbishy leather that cannot stand the dew on the parade ground even, badly made and fitting. If he is to continue to wear them, Government should supply and charge for them.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

The dress of the Native army of this presidency is in the highest degree unsuitable either for peace or war. It is neither ornamental nor comfortable, and being tight-fitting is singularly unbecoming to the Native figure. The Native infantry soldiers of this army appear to much greater advantage when dressed in Native clothes than when attired, as they now are, in a uniform made of the same pattern (but of inferior materials) as that worn by the British soldier. The Kilmarnock cap is neither a protection to the head nor a suitable or becoming head-dress to a Native. A dress of a somewhat more appropriate nature has been devised and approved by the Government of Bombay, but the final approval of the Government of India has not yet been secured. This dress, though an improvement on that now in use, is not altogether satisfactory, as the desire not to exceed the present cost necessitated the use of serge instead of cloth for the tunic as well as the trousers, and it is doubtful whether serge will wear as long as cloth and be as serviceable to the men. Many of the regiments have adopted the Native head-dress (*puggrie*), and it is hoped that shortly the Kilmarnock cap will be entirely dispensed with. The dress of the Native cavalry is now in the course of being remodelled, but this reform can only be carried out very gradually, so that unnecessary expense may not be imposed on the sowars.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

Certainly not. I consider the dress of the Native soldier requires much alteration and open to vast improvement, and it is the one great cry of commanding officers of the Bombay army that they cannot dress their men as some of the Bengal regiments are now dressed.

I think a nice loose dress might easily be adopted without any extra expense to the State, but certainly to the efficiency and appearance of the army.

Colonel S. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay Native
Infantry.

The uniform of the Native soldier of the Bombay army is susceptible of much improvement. The trouser is most unsuitable; loose knickerbockers with the gaiters or leggings should take its place. The great-coat requires altering to render it as serviceable as it should be.

Colonel W. Bannerman, 4th Bombay
Rifles.

I consider the Zouave dress the best suited for the Native soldier.

Colonel G. W. Hanson, Commanding
9th Bombay Native
Infantry.

The uniform issued to the 9th and 22nd Bombay Native Infantry regiments on proceeding to Malta last year, consisting of a serge tunic, loose trousers, and canvas gaiters appears to meet all requirements: it is comfortable, serviceable and looks well; but I would suggest that the tunic should be made rather longer and looser than the present pattern.

Colonel H. H. James, 10th Bombay
(Light) Infantry.

No, it should be far looser and more suitable to Natives. I would do away with the imitation of British uniform.

Colonel R. Mallaby, Commandant,
13th Bombay Native Infantry.

I can conceive no dress more utterly unsuitable than that of the Native regiments of the Bombay army. Suitability in all and great changes of climate, a dress easy put on and put off, freedom for chest and limbs, durability with good style are the requirements, and these are utterly ignored in this army. The difficulty is that some extra expense might have to be incurred; but I am sure that if the clothing agency is abolished, and the materials are of a Native manufacture, the extra expense would be covered, and the efficiency and the number of years through which that efficiency would stand good would be vastly increased. I have enlarged on this matter in my reply to question 26.

Colonel Creagh, Commanding 19th
Bombay Native Infantry.

The Bombay army is being gradually improved in dress. I would advocate knickerbockers, gaiters and English ammunition boots. The tunic answers its purpose, being suitable for all weathers and is liked by the men.

Colonel A. Carnegie, 21st Bombay
Native Infantry.

No, not the uniform in general use in the Bombay army, but I consider the uniform suggested by me for the marine battalion, and approved by the late Commander-in-Chief, Sir C. Staveland, a most serviceable dress.

Colonel J. Fairbrother, Commanding
22nd Bombay Native
Infantry.

The present uniform of the Bombay army is unsuited for the requirements of the Native soldier. I would venture to recommend English ammunition boots, loose and long "peg-top" trousers with a short gaiter, loose coat without a collar, made somewhat like a "Highlander's" or "Norfolk" jacket, and a large high puggie, or loongie; also a "khaki-rung" suit for marching, escort duty and for drill and guards in the hot weather.

Lieutenant-Colonel O. V. Tanner,
Commanding 29th Bombay Native
Infantry.

The present uniform of Zouave trousers, puggies and putties or gaiters I consider very good. A working dress in addition would be desirable.

35. Is the present mode of payment to Madras soldiers, depending as it does on the price of rice, a judicious arrangement?

Colonel H. S. Osborn, Commandant,
41st Bengal Native
Infantry.

Not theoretically, but practically, it may answer very well. I dare say it was advantageous to Government when first introduced. If any change is contemplated that is disadvantageous to the whole army, it should receive very serious consideration.

Colonel T. Boisragon, Commanding
36th Punjab Native
Infantry.

I should certainly say not, as a principle. If he is paid in rice, it cannot matter, for, whatever its price, he would get the same amount of rice; but if he is paid in money at the market rate of the rice, the principle cannot be a sound one. In fact, I suppose it comes to the same thing as "compensation for dearness of provisions."

Colonel E. Dandridge, Commanding
40th Native Infantry.

If it be true, as I have read, that the cost of a Madras regiment is far in excess of that of a Bengal one, I should say the present system was certainly not judicious. Men coming into the service hereafter might be brought on the Bengal scale.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

I am not aware as to the payment of the Madras Native army whether that is—the sepoy gets a certain fixed pay, as in the Bengal army, and compensation for dearness of provisions, when the staple commodity of which his food is composed rises beyond a certain rate; If so, there seems to be no difference between the two. But if it is dependent altogether on the price of rice, which forms, I believe, the staple food of the Madrassee, I think the arrangement an injudicious one, as there is no knowing what his pay might amount to in seasons of dearth, the rice crop being so dependent on a due supply of rain.

Lieutenant-Colonel R. G. Rogers, 20th Punjab Native Infantry.

I know nothing of the Madras system. The Bengal practice of granting compensation (in addition to regulated pay, &c.) works on the whole well.

Lieutenant-Colonel J. Hudson, Commanding 23rd Punjab Native Infantry.

I should say not. In my opinion the soldier should have a fixed rate of pay, and take his chance like any other member of the population of a country in regard to a change in the price of food.

Major A. C. W. Crookshank, 32nd Pioneers.

I am not personally acquainted with this matter; but any arrangement under which the rate of a soldier's pay depends upon the local price current is, I consider, highly injudicious and unsatisfactory.

Colonel H. Boisragon, Commandant 4th Sikhs.

I know nothing about this Madras system of payment, dependent on the fluctuating price of rice apparently. A soldier's pay should be permanently fixed. But this I do advocate, abolishing "compensation for dearness of provisions" *in toto* in peace times, and in garrisons the men should take their chance with the rest of the community (European and Native); during war such unusual charges are met by the batta generally granted by Government. If this system is to be maintained, I should certainly apply it only to buglers and sepoys and certain Government camp followers, not to the non-commissioned ranks; *certainly not* to the Native officer.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

Not having had any experience, I can scarcely presume to offer an opinion: the custom appears to me to be equally objectionable to that which obtains in the Bengal army of granting compensation for dearness of provisions.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

As rice is the staple food of the Madras soldiers, compensation for its dearness is a most judicious arrangement.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

I do not think that any better arrangements could be made, unless the pay of the Native soldier were increased.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

I cannot suggest a better mode. I have referred to double rice-money in answer 26.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

The pay of soldiers must depend on the price of grain on which they live. The Madras sepoy lives principally on rice; even when stationed where flour is cheaper, he will continue to eat rice for one meal, wheat diet not agreeing with him. I consider the higher rate of compensation unnecessary, as what is sufficient at Trichinopoly and Bangalore should suffice in the Central Provinces, where living is cheaper than in the south of India.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I think it is, rice being the staple food of the Madras soldier, and the rice-money, as it is called, does not compensate in full for the dearness of rice.

In my answer to question 15 I have stated how, I think, under certain circumstances the rice-money should be limited to Rs. 3 a month. I believe, but am not certain, that in some stations in the Nagpore and Central Provinces it is much more.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Infantry.

If compensation for dearness of provisions is allowed at all, it must be allowed for rice in the Madras presidency, as it is the staple food-grain here, and the people live on nothing else; but I think it is a bad arrangement to have a fluctuating scale of pay, as in the case of the Madras sepoy's pay with the addition of compensation for dearness of rice. I would strike an average and substitute a fixed increased rate of pay.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

It is not a judicious arrangement for the Government, but for Madras sepoys it seems to be the fairest that can be adopted. When the men cross the Nerbudda river they receive *double* batta, and this makes the sum paid to Madras regiments serving in Bengal appear very large, but I find the average monthly payments for compensation to my wing from August 1878 to July 1879 averages for the twelve months Rs. 2-6-7 per month, and for four of those months in 1878 rice was selling at 5 measures per rupee, as it was the famine year! The average for this year (seven months) is only Rs. 1-15-4 per man: see return attached, marked B.

B

LEFT WING 39TH REGIMENT, NATIVE INFANTRY.
Rice-money drawn from August 1878 to July 1879.

				Rs. A. P.	Rs. A. P.
Rice money for August 1878 at 5 measures	...	...	...	3 3 8	...
" " September " " "	...	...	...	3 2 0	...
" " October " " "	...	...	...	3 3 8	...
" " November " " "	...	...	...	3 2 0	...
" " December " 6 "	...	...	...	2 8 4	...
" " January 1879 at 7 "	...	...	...	2 0 2	1* 0 0
" " February " 6 "	...	...	...	2 4 5	2* 0 0
				Rs. A. P.	
" " March 1879	{ Coconada 8	...	1 10 1	} 1 13 2	3* 0 0
	{ Rajahmundry 7	...	2 0 2		
	{ Rajahmundry 8	...	1 9 3	} 1 12 3	4* 0 0
" " April " "	{ Chowdaram 7	...	1 15 2		
	{ Rajahmundry 7	...	2 0 2	} 1 13 2	5* 0 0
" " May " "	{ Chowdaram 8	...	1 10 1		
" " June " "	at 7 measures	...	...	1 15 2	6* 0 0
" " July " "	" 7 "	...	...	2 0 2	
					28 14 2†

* 7 months of 1879.—Total Rs. A. P.
Average 13 10 6
... .. 1 15 3

†12) 28 14 2

Average 2 6 7 per month.

Major E. Faunoe, 14th Madras Native Infantry.

Yes; I cannot see that it differs materially from the mode in force in Bengal and Bombay (see pp. 46-49, Pay Code, volume II). All receive a certain monthly pay, and, in specified cases, extra allowances, depending in Madras on the price of one article only, viz., rice; in Bengal on the price of four articles, wheat, dhall, ghee, salt; for Bombay the same with the addition of firewood.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

I have only served with the Bombay army; but I should give it as my opinion that the system of payment to the Madras soldier, depending, as I am led to believe it was, on the price of rice, to be anything but a judicious arrangement.

Colonel E. Mallaby, Commandant 13th Bombay Native Infantry.

I do not myself know the principle on which this payment is made. If it is on the principle on which the "compensation for dearness of provisions" is granted with us in Bombay presidency, I see no objection to it; but I should prefer that some average be taken, say of the last five years, and the result be permanently added to the pay.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

It is the fairest, as it equalizes the cost of living in all stations. The only remedy would be to increase the soldier's pay in lieu thereof. *vide* answer 39.

Colonel J. Fairbrother, Commanding 22nd Bombay N. I.

I am in favor of having it a fixed sum.

36. It is very desirable to reduce the number of followers of all classes in regiments both in peace time and in active service: can you suggest reductions of the present establishment?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

I don't see how the present establishment of a regiment of Punjab infantry can be reduced either in time of peace or war.

Colonel R. S. Obbard, Commandant 41st Bengal N. I.

The followers attached to a Native battalion are of three classes—

- I.—Mustered establishments.
- II.—Private servants for public purposes.
- III.—The men's families.

The first to consist of—

- 1 tindal, 8 lascars, 8 bhisteers, 8 sweepers.
- 1 chowdree, 1 mootsuddce, 2 weighmen, 2 bildars.

For hospital, 1 shop cooly, 2 bluesties, 1 goorga, 2 cooks, 2 sweepers, with 1 mats and 3 bearers, or a dooly.

Educational, 1 schoolmaster, 1 munshi, 1 pundit.

Of these, the tindal and 8 lascars might be dispensed with. A non-commissioned officer being detailed to assist the quartermaster, in lieu of the tindal, on an allowance of 4 rupees a month, and a sepoy per company being detailed for work in store-room and magazine on 2 rupees a month.

The mootsuddee, weighman and bildars might be dispensed with.

The hospital establishment is not susceptible of education.

The schoolmaster, moonshee and pundit may be got rid of as non-combatants-enlisted, and trained soldiers taking the duties. English school-master at 10 rupees a month, and one vernacular teacher at 5. These two, with the pupil teachers paid from the school funds, would suffice.

Class II consists of—

8 bunneahs, 3 washermen, 8 barbers, 8 goorgas, 1 sweetmeat seller, 1 tobacconist, 1 dyer, 2 moochees, 2 writers.

Bunneahs might be reduced by 4 if necessary, but I hardly think it would be any gain. Half the washermen, barbers and goorgas might be dispensed with on service. So might the dyer, 1 moochi, and 1 writer.

Class III.—The men's families. There are about 40 or 50 generally with the regiment. They come and go, but very few remain permanently with it, except those of the Christian drummers. It tends very much to the happiness and contentment of the men, having their families come for a month or two, and I do not think it would be well to interfere with them.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

The followers of Native infantry regiments is not at all excessive and do not admit of reduction.

Colonel E. Dandridge, Commanding 40th Native Infantry.

The number of *paid* followers is but small. The bazar establishment might be dispensed with (the paid portion of it).

Colonel G. W. Fraser, Commandant 80th Native Infantry.

The following reductions might be made with advantage—

(1) The moulvie and pundit, their places being supplied by sepoy assistant schoolmasters, whose extra pay would be paid from the school funds, and who would join the ranks in time of war.

(2) The tindal, whose place should be filled by a quarter-master havildar.

(3) Four lascars: these men are chiefly assistants to the tindal, in looking after the regimental stores in magazine, ammunition, camp equipage, surplus clothing, &c.; they are also employed as orderlies to the quarter-master and medical officer, which duties should be performed by sepoys, the remaining four lascars being employed solely in the magazine, under the orders of the quarter-master and quarter-master havildar.

(4) The mootsuddee and two weighmen, whose duties are supposed to be to look after the bazar, see that the regular supply of provisions is kept up by the regimental bunneahs, and that it is of good quality, that proper weights and measures are kept by the bunneahs, &c.; but as these duties are already performed in reality by a standing regimental bazar committee, who are responsible to the quarter-master, the retaining of the above three individuals appears to be superfluous.

(5) Two bildars, whose work should always be done when required, by fatigue parties from the regiment.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

The only possible reductions I can suggest are connected with the regimental bazar.

The chowdry, mootsuddee, and two weighmen might be done away with altogether.

The bazars themselves should be local, and should not accompany regiments on the march. Where there are no *burdashkhanas*, civil and political officers might make the necessary arrangements. While on service the commissariat would, of course, feed the troops.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

In the quarter-master's establishment I consider that the two bildars and two weighmen could be very well dispensed with. The regimental *kalassies* could do all the duties of the bildars without interfering with their own work, whilst the chowdry could very well otherwise arrange for those of the weighmen. As a point of fact, these latter do little else but attend upon the quarter-master as orderlies. In the hospital establishment also considerable reductions could be made, especially on the introduction of the general hospital system referred to in question 38.

Lieutenant-Colonel L. H. Williams, Commanding 14th Sikhs.

I do not consider that the number of regimental followers could possibly be reduced; they consist at present of 1 tindal and 8 *kalassies*, 16 bluesties, 16 cooks, 5 sweepers, and 2 bildars.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

No, not in peace time or on active service beyond what they would be reduced by the regimental authorities as a matter of course.

Lieutenant-Colonel R. G. Rogers, Commanding 24th Punjab Native Infantry.

The number of followers seems to me to have been reduced as far as practicable, with regard to efficiency of the Native army.

Far from reducing the number, I consider that an extra lascar (or "*peepawalla*" as still retained by *Goorkha* regiments) should be attached to each company of the service battalion to carry and issue reserve ammunition in action, for mules cannot accompany the fighting line, and every rifle being required, soldiers cannot be spared to run backwards and forwards as ammunition runs short.

Lieutenant-Colonel F. R. Norman, Commanding 24th Punjab Native Infantry.

The followers in a Punjab regiment are as follows per company :—

Lascar	...	...	...	1
Bhistees	...	...	...	2
Cooks	...	...	...	2
Sweeper	...	...	...	1

I do not consider that the followers of the three latter classes could be reduced. If lascars were reduced, the work would have to be performed by sepoys; and as it is on service, too many fighting-men are employed on duties which could be performed by less highly-paid men.

Lieutenant-Colonel J. Hulson, Commanding 28th Punjab Native Infantry.

I think the bazar establishment might be abolished, if it was rendered imperative on all men in Native regiments to make use of the station bazars in peace time, and if Government issued rations through the commissariat department in active service.

On occasions of the march of a regiment from one station to another in course of relief, a certain number of bunneahs could easily be sent with it from the saddler bazar of the station.

I do not think any other part of the Native establishments of a regiment could be dispensed with, except at the expense of efficiency in the corps itself.

Lieutenant-Colonel G. C. Rowcroft, 36th Native Infantry.

No, not without causing a diminution in the number of fighting men who might be told off as company tent-men, &c. I consider the present *authorized* establishments on as low a scale as compatible with efficiency, after allowing for casualties and sickness when on active service.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattray's Sikhs) Native Infantry.

I do not think the present regimental establishment one too many either in peace or war time.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I do not well see how the number of followers could be reduced in time of peace, but perhaps some system might be introduced which would do away with the regimental bunneahs and bazar establishment, making the commissariat supply Native regiments with all that is needful. I consider regimental bunneahs, as a rule, quite useless, and a cause of constant trouble and litigation, and when the regiment is ordered on service they will very often, if not forcibly detained, remain behind.

Major R. A. Wauchope, 14th Sikhs.

I do not think they should be reduced. The tindal and eight kalassies per battalion might be given up altogether, and instead of them I would enlist men of the same class as the regiment for this duty, drilling and training them as soldiers: they would form a portion of the peace establishment, and in war time they could be used as baggage guard, or serve in the ranks as required.

Major A. C. W. Crookshank, 82nd Pioneers.

The followers of a Native regiment are only those really wanted, and most of them are paid for by the men; the only way therefore in which they can be got rid of is by getting the work done by the men, and thus putting the Native regiment in India on the same footing as a British regiment at home, due regard being paid to caste prejudice and to traditional manners and customs.

Hitherto it would be impossible to replace the lower paid follower by the higher paid sepoy; but if the strength is increased, then there would be a margin for non-effective services. I think then that in peace time the tindal might be replaced by a quartermaster havildar (one of the havildars now on the strength receiving a staff pay of Rs. 7 to Rs. 10), and the lascars might be replaced by old soldiers acting as store orderlies. The dhobies, cooks, bheesties, and sweepers must remain. The two moochees might be dispensed with, and in regiments where that class is not enlisted, permission should be given to enlist two moochees, and they be given the pay now given to the moochees as a staff allowance. This principle has been adopted for the armourers. The bildars might be discontinued, and the work done by fatigue parties. The chowdry, weighman, and bunneahs who form the victualling establishment of a regiment must remain.

In war the following would be taken with the regiment :—

<i>Regimental followers.</i>	<i>Victualling establishment.</i>
16 cooks.	1 chowdry.
16 bheesties.	1 weighman.
8 sweepers.	8 bunneahs.

In hot weather a proportion of dhobies would be allowed, and to the above the spiritual adviser might be added.

Hospital.

I think the establishment might be revised. In peace time all that appear necessary are—

Apprentices.	Bheesties.
Drusser.	Sweepers.
	Cooks.

The goorah, who is generally the servant of the hospital assistants, should be reduced. The doolie-bearers are never used for the duties they are paid for; they might be reduced, and, in their place a couple of sick bearers allowed to assist the hospital assistant in looking after the sick and also in attending on the sick.

For the transport of the sick in quarters a few stretchers should be distributed in the lines, and sick men be carried to the hospital by their comrades on them instead of as now in charpoys. This would familiarize men to the use of stretchers. On the march a light ambulance would be far more useful than the two doolies and far less expensive.

In time of war I would only take with the hospital—

2 hospital assistants,
1 apprentice,
2 hospital attendants,

and perhaps one cook; bheesties, sweepers, and extra cooks being supplied from the individuals of that class attached to the regiment.

By this means some small economy would be gained in time of peace, and in war the followers would be reduced to a minimum.

I would also advocate, if the strength of regiments is increased, enlistment of one servant per officer. In some regiments there are classes who can provide officers with good soldier servants in war time. In others I would allow the commanding officer to enlist a few carefully selected men of suitable castes, as officers' servants, so that in war time they would be soldiers instead of useless followers. The officers' followers could then be reduced to one servant per horse, and one general table servant to three officers.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Regiments are so much broken up into detachments, that I don't see how the present establishment could be reduced.

Major A. Batty, 2nd Goorkhas.

I cannot recommend reduction of the present establishment. On the contrary, the number of bheesties (one per company) is not always sufficient on active service. Lascars or Kalassies could, however, be made more useful on service if they were armed and drilled.

Major F. F. Rowcroft, 4th Goorkhas.

I do not think the followers of a Native regiment in peace time are excessive in number, consisting as they do of the company, bunneahs, chowdry, moonshee, 2 dyers, 2 shoemakers, barbers, 2 armourers, butcher and his assistant. Going on active service, most of them could be easily left behind. In the late campaign in Afghanistan my regiment had only 2 bunneahs, 1 chowdry, 1 dyer, 1 shoemaker, 1 butcher and his assistant, 2 barbers, and the armourer, and the regimental "kalassies," whom I forgot to include above.

Colonel R. Blair, 3rd Native Infantry.

I would suggest that the present system of regimental bunneahs be done away with, and the commissariat to supply all rations: this would do away with the necessity of compensation for dearness of provisions; also the mutsuddee of the regiment.

Colonel H. Boisragon, Commandant 4th Sikhs.

No reduction of *Government* "followers" possible in Native corps compatible with efficiency.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

I can offer no possible suggestion regarding reduction in the number of camp followers.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

I think the present peace establishment of camp followers allowed in a Native regiment is as low as it can be made. In time of war the increase is caused by men in charge of baggage animals and dooly-bearers.

Major A. G. Ross, Commanding 1st Sikhs.

The two weighmen in bazar might be reduced. I do not think any one else can be reduced in peace. In war there should be a bheestie, besides a pakhali to each company in arid countries, and a bheestie for every 80 followers, and a sweeper for every 150 followers.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I cannot offer any suggestions for the reduction of the present establishment of followers.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

This is a point that is very difficult to deal with as regards the men's private followers, for they consider themselves bound to maintain those of their relatives who cannot or will not obtain employment for themselves, and these are undoubtedly a heavy burden on the men, but this is an evil which may diminish in course of time, but it has to be carefully and gradually dealt with.

The strength of the public followers which I have given in answers 1 and 2 are, in my opinion; the lowest required for a battalion on peace and war footings.

Colonel G. Hearn, Commanding 16th Madras Native Infantry.

In a Madras regiment the authorized followers are—

8 lascars.	8 pukhalees.
8 barbers.	8 dhobis.
1 kotwal.	2 peons.

The kotwal and peons may be struck out, as also the moonshee, who still exists in some regiments.

Unauthorized followers should not be recognized or allowed.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

The bazar establishment of a Madras regiment is useless; they will not accompany the regiment on change of station. The kotwal and peons might be dispensed with. Regimental lascars are of little use in a station, and sepoy should pitch their own tents.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I do not see how the families can be reduced, and in peace time they travel at their own expense. When a regiment is sent on active service, I think the families should be left in their lines with a few old men as guard, if possible, in charge of a British officer. They should remain there till the service was over, and the regiment should be sent back to the same station, if possible, for at least a year. At present the families are generally sent at Government expense to the station they select, but I think this is an unnecessary expense. Let them stay where they are, and if any insist upon going, let them go at their own expense. This of course could not be done if a relieving corps was sent. In that case the families must be sent elsewhere. This is the only way in which the families are any expense to Government.

The only authorized non-combatant camp followers (except carriage for sick) are eight lascars, who do a good deal of the work of pioneers, puckhalees, dhoobis, and barbers, two of each per company, two hospital assistants, one bazar kotwal and two peons, and two hospital totis. The dhoobis and barbers might be dispensed with on a campaign. The kotwal and peons might be abolished altogether, but all the rest are necessary, and the number is not great.

In Bengal two cooks per company are allowed, but in a Madras regiment the men could cook for themselves in messes as they do on boardship. Two or three men could be told off for this per company; but, if the food consisted of rice, Government would have to supply them with some large dekchis to cook it in, and if it were flour, they would require some large towahs. This would reduce the fighting line a little, but it would also reduce the number of helpless followers. One servant and one syce per British officer, and one servant to two Native officers, is the minimum allowance.

There is no carriage whatever allowed for sick in cantonment to a Native infantry regiment in the Madras army. I do not see how the above allotment could be reduced.

The Madras cavalry have a number of grass-cutters, but if the country to which a regiment was ordered forage was procurable on payment, the grass-cutters could be discharged and left behind without extra expense, as the horses are the property of Government.

Lieutenant-Colonel F. H. Tyrrell, 37th Native Infantry.

The duties of the 8 store lascars in a Madras infantry regiment might be performed by sepoy, as is the case in the Bombay infantry regiments. No further reductions could be made among the public followers of a Madras regiment who are few enough. But the horde of women and children, and male relatives of the sepoy who follow our regiments, are a serious nuisance, and are often the cause of heavy expense to Government.

Our commandant has lately taken steps towards the abatement of the nuisance by forbidding the enlistment of married recruits, and prohibiting any private from marrying until he has obtained his first increase of pay, *viz.*, after three years' service.

The living of the relatives of the sepoy with them in the lines is prevented as much as possible.

The best way of getting rid of followers with Native troops would be to lodge the troops in barracks. The Madras troops on service in Burmah live in barracks, and there is no reason why Native Indian troops should not be lodged in barracks, except the expense of providing the accommodation.

Major E. Fauno, Commanding 14th Madras Native Infantry.

We have only one bazar chowdry, two peons; there is no necessity whatever for them; they are supposed to keep order in the regimental bazar, an institution fast dying out, and where existing consisting of some 20 or 30 huts; any such duty can be, and ought properly to be, done by the regimental police.

One tindal, 8 lascars; these too have very little to do practically, and all that they do would be better done by fatigue (or Pioneers) men. British regiments have no tindal and lascars; their pioneers do all work done by them, and there is no reason whatever for keeping them on.

The only remaining followers, puckallies and sweepers, cannot be reduced.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

Excluding the hospital establishment there are only 20 authorized Native followers attached to Native infantry regiments in peace time, and 9 of these are tent lascars and the remainder are bhistees. None of these could, I think, be reduced. Regiments proceeding to Afghanistan were permitted to take, in addition to officers' servants and hospital

establishments, 59 followers, and this does not appear an excessive number. The class of followers which swells the numbers to so vast a figure is the doolie-bearers, of whom 366 accompanied each Native regiment. It is not possible, without information of the nature of the country to be operated in, and special circumstances of the case, to say how far this number, which certainly seems excessive, could be reduced.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

I do not think the number of regimental followers can be reduced either in peace or on active service.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

I do not think the establishment of *public* followers for a regiment of Native infantry is susceptible of reduction either in peace time or in active service.

The only private followers which accompany a regiment on service are the servants of officers; these might be reduced on crossing the frontier or on embarkation for foreign service to a soldier servant to each officer and a syce for each horse, one mess servant being allowed for every three or four officers.

In peace time the private followers of a Native regiment of the Bombay army are—

(a) the servants, such as barbers and sweepers, the number of which is of course limited to the requirements of the men;

(b) wives and children: a reduction here could be made only by limiting the number of married men in a corps; this would make the army unpopular;

(c) other relatives: the number of these is very limited in the Bombay army; only widows having sons in the regiment and having themselves no home to go are permitted to reside in the lines.

Colonel W. Bannerman, 4th Bombay Rifles.

I do not consider the authorized followers of all classes with a regiment to be at all in excess, and am unable to suggest reduction of the present establishment.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

Including officers' servants and syces, the public and private followers taken to Malta last year with the 9th Regiment Native Infantry amounted to 64. This number does not appear excessive. In addition there were 86 doolie-wallas—a larger number than was necessary.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

The only followers in the regiment in peace time are the men's families. These cannot be diminished: doing so would only have the effect of making the service unpopular.

The men serve more contentedly with their families about them, and they are an extra security for good behaviour and allegiance.

On service, followers should be reduced as far as possible; soldiers might be allowed to officers as servants, as was the case in Abyssinia.

The followers necessary for hospital and transport duties cannot well be reduced without risking difficulties in other ways.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

I suppose this has reference to public followers; the only such with us are those of the hospital establishment, the chowdry and two bazar peons. The tent lascars are enlisted men, and would hardly come under the head of followers. I have no suggestions to make tending to reduction.

Colonel Cragh, Commanding 19th Bombay Native Infantry.

There is a bazar establishment in the Bombay army consisting of a chowdry at Rs. 16 and two peons at Rs. 5 each, with additional allowances, which might easily be dispensed with. The other followers in peace time, excepting the hospital establishment, which is remarked upon in answer No. 33, are eight company bhistics and nine tent lascars, all of whom are required. In the field the present establishment of doolie-bearers is 40 per cent. of the strength of the regiment, which is excessive and could be reduced, certainly one-half. The bullock bhistics and sweepers allowed in the field are not above the requirements.

Colonel A. Carnegie, 21st Bombay Native Infantry.

Scarcely applicable to the marine battalion, which may almost be considered a local corps in this respect.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

As regards public followers I cannot, but a great reduction might be made in private followers both in peace time and war. By allowing "soldier servants" to be introduced in time of peace, they would be properly trained for that duty in time of war, and thus do away with a very troublesome class in time of war, and at the same time having effective soldiers in their place when needed; further, I would discourage by every means in my power the relatives of the men, wives and children excepted, from settling near the regiment; they flock round them in large numbers and live upon them.

Lieutenant-Colonel O. V. Taurer, Commanding 23rd Bombay Native Infantry.

Followers can be greatly reduced as they were in the late war. When it was over and just before peace was proclaimed, we got 80 kahars in addition to our former proportion, for whom it was difficult to find accommodation, and who were excessive.

37. Can you suggest improvement in the system of entertaining these men, and in what way could they be organized so as to be less defenceless and helpless than they are at present?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

More care should be taken in their selection, particularly in the case of doolie-bearers, all of whom should undergo medical examination before being entertained. All might with advantage be armed with a light Native sword, which nearly every Native knows how to wield. The kahars should be compelled to provide themselves with clothing and covering suitable to the climate and season, except on extreme occasions, when extra articles of warm clothing may be granted by the State. I see no reason why doolie-bearers should not be so far drilled and organized as to be able to move with some degree of regularity on the line of march, instead of in the confused and struggling mass they do at present.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native In-
fantry.

I do not know that any better system of entertaining these men could be determined. They are essentially non-fighting men, and as they are necessary for the well-being of the troops, defence must be provided for them. A good iron-bound *lathee* is better for them all than a sword.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

No man who would accompany a regiment on service should be entertained who is not up to the regimental standard in the matter of physique. All should be put through a course of drill and musketry on entertainment and occasionally afterwards.

Colonel G. W. Fraser, Com-
mandant 39th Native Infantry.

Beyond making it a *sine quâ non* that all men entertained as store lascars should be physically fit for service and able-bodied, and not over a certain age when entertained (say 25 to 30 years), I can suggest no improvement in the system of entertaining them. On service I would arm these men, as also all other public establishments with a good ordinary Native *tulwar*. By public establishments I mean the above men, also bheesties, sweepers and kahars, all which I consider must be retained

Lieutenant-Colonel H. Worsley,
Commanding 7th Bengal Native
Infantry.

It would be dangerous to entrust firearms to such men. Besides, cook-boys, mehters, &c., under proper arrangements would never be exposed to hand-to-hand conflicts. Whereas, bheesties have quite enough to do to carry their *mussuks*. Perhaps on service *tulwars* might be issued to all followers, but certainly not firearms.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infan-
try.

A medical examination at time of entertainment, as in the case of recruits, would at least ensure their physical fitness to encounter the hardships of a campaign. The best weapon of defence they can have is an Afghan knife, whilst quarter-masters might organize some simple method of occasionally instructing them how to use their weapon in the most effective manner.

Lieutenant-Colonel L. H. Wil-
liams, Commanding 14th Sikhs.

I would suggest that they be each supplied with a *tulwar* when the regiment is ordered on service.

Lieutenant-Colonel R. G. Rogers,
Commanding 20th Punjab Native
Infantry.

They should be enlisted as are sepoy, and bound to serve for a stated period. All should, moreover, be trained to act together in small bodies, and to use swords and revolvers with which all should be armed.

Lieutenant-Colonel F. B. Nor-
man, Commanding 24th Punjab
Native Infantry.

I do not consider that any improvement could be made either in enlisting or organizing these men. On service they are allowed swords, and are not more defenceless than buglers.

Lieutenant-Colonel J. Hudson,
Commanding 23rd Punjab Native
Infantry.

In the first place, all men of this kind entertained for service with regiments should be younger and more able-bodied than most of them now are. All followers should be medically inspected, and just as much care taken to insure all being fit for active service as is taken with the rank and file of a regiment. Then again they should be armed and taught how to use their arms, at all events in self-defence. There would be no difficulty in doing this.

All the cooks in a regiment should be taught to be useful as assistants in the hospital.

Lieutenant-Colonel G. C. Row-
croft, 35th Native Infantry.

This question can scarcely apply to the 31 individuals forming the authorized non-combatant establishments of a regiment of Native infantry (Hindustani). But even with them, a system of medical examination as to physique and a course of gymnastic exercise, and sword and shield drill, would render them more self-reliant and useful than they are at present.

Lieutenant Colonel F. M. Arm-
strong, Commanding 45th (Rat-
tray's Sikhs) Native Infantry.

The system of entertaining the regular regimental establishment is simple, and could not, I think, be improved on. These men were never in the last campaign found to be very helpless; a *tulwar* is all they require. How the extra establishment of doolie-bearers, muls

and camel drivers, supplied to regiments were entertained, I have no idea.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

More care should be taken about the kind of men entertained, and they should be of better physique than they are at present. They should be armed when on service with some Native weapon, in the use of which they might be trained; but it would not be safe to trust them with firearms.

Major A. C. W. Crookshank, 32nd Pioneers.

Not as regards their entertainment; but I would require them to wear a simple uniform, drab blouse, *puttees* and pants, and I would have them all drilled in squad drill and the firing exercises, so as to give them an idea of forming together and using a rifle. I would also equip them with a brown belt and a light country *tulwar* (not the hussar swords, which made our followers a laughing stock in the late campaign and often proved the means of their execution).

All regimental followers should be medically examined, and only those enlisted who are physically fit. Before going on a campaign, officers' servants should also be medically examined, as, when they fall ill, they cause the utmost inconvenience.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

All regimental followers should, I think, be made to wear a uniform, so as to be easily recognized, and should be placed under charge of a non-commissioned officer of the regiment they belong to, and be armed with swords. Kahars, if Punjabis, would, if treated similarly, be less helpless than they are; but kahars from Oudh, &c., appear to be totally unable to protect themselves, even if given arms for the purpose.

Major A. Batty, 2nd Goorkhas.

Lascars or klassies are the only followers who could be armed and drilled. They should be given breech-loading snider carbines and sword bayonets, and their pay increased from Rs. 5-12 to Rs. 7. Bheesties would make good enough soldiers, but could not carry their arms, as a *mussak* with water in it is a sufficiently heavy load.

Major F. F. Boweroft, 4th Goorkhas.

I confess I cannot suggest any improvement, nor do I see how such men, as bunneahs, barbers, dyers, shoemakers, &c., can be organized in any way. During the late war all the regimental klassies were armed with swords provided by, I think, the ordnance department.

Colonel H. Boisragon, Commandant 4th Sikhs.

The regimental system as obtains already in corps efficiently commanded, which should ever be self-supporting in all respects; give them a cheap uniform, certainly a distinctive *pugri* and a *tulwar* for defence. Most Asiatics know to use this weapon.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

The only suggestion I can offer is to arm each with a Native *tulwar*, which some can use. A long cavalry sabre with which followers with Kaudahar column were armed is worse than useless and only an encumbrance. Being non-combatants, they are entitled to protection in an enemy's country.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Native Infantry.

I cannot. The large mass of camp-followers attached to an army in the field are entertained for the occasion. In camp a system of discipline should be maintained amongst them, which would prevent their staying beyond bounds and running the chance of being cut up. On the march the nature of their duty compels them to go along in a very defenceless manner, and they must trust to the protection of the troops.

Major A. G. Ross, Commanding 1st Sikhs.

Have a system; and entertain for each work only those who can do it, e.g., kahars for doolie-bearers, muleteers for mules, &c. Do not take any human being you can sweep together.

Give followers short good swords like ordinary *tulars* or swords driver, and they will soon take to using them. I do not see what organization can be arranged for men so diverse and scattered in work.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

The whole of the followers of a corps might be armed with carbines and, with the drummers, formed into company for drill and instruction. The most helpless man in a regiment seems to me to be a drummer.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

Considering the duties that these classes of men have to perform, much organization cannot be expected of them, and I am unable to suggest any plan that would improve their organization.

Colonel G. Hearn, Commanding 13th Madras Native Infantry.

The lascars, pukalis, barbers, and dhobis could be enlisted and trained sepoys.

Colonel W. A. Gib, Commandant 25th Madras Native Infantry.

I have no improved system to suggest. We cannot make warriors of doolie-bearers, and they must be taken care of and protected; but their number might be reduced by increasing the number of sick carts, if it was a country where wheeled carriage could be used.

Lieutenant-Colonel F. H. Tyrrell, 37th Madras Native Infantry.

In the Madras army the few public followers are entertained by the commandant. There is no better way. They might be armed with swords when on active service, to enable them to defend themselves if attacked.

Brigadier-General H. F. Brooke,
Adjutant-General, Bombay Army.

The authorized followers, such as lascars, bhistics, &c., are enlisted and could be given a military organization without difficulty; but as doolie-bearers are only engaged when required, it would not be easy to deal with them in a similar way.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

The question, I imagine, applies more to doolie-bearers than any other followers. These I would enlist and form into a corps and would give each man a short sword, something with which he might, to a certain extent, defend himself and not be in the way when carrying his doolie.

Colonel S. Edwardes, Commanding
2nd (Prince of Wales' Own)
Cavalry Regiment, Bombay
Native Infantry.

The followers which accompany a regiment on service are—

- (a) tent lascars;
- (b) bhistles;
- (c) doolie-bearers;
- (d) officers' servants.

(a) If pioneers were attached to regiments as suggested in answer 32, the services of tent lascars would not be required. In peace time the pioneers could take charge of the regimental tents, also fire-engines, besides attending to the instruction of the men in pioneer duties. On service, the tents would all be in charge of companies, and the pioneers available for superintending the clearing of camps, the construction of earth-works, roads, &c. Being armed men, they would defend themselves.

(b) & (c) Bhistles and doolie-bearers have always plenty to do and enough to carry without being burdened with any arms for their own defence. Arrangements must always be made for their protection.

(d) The number of officers' servants should be limited to a syce to each horse and a soldier servant to each officer. There is no way in which syces could be entertained with the view to arming them and making them capable of defending themselves.

No troops should be allowed any servants; they must wait upon themselves.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

It seems to me that if these men are in their legitimate place, their surroundings would sufficiently protect them. To require them to carry arms would be encumbering them with weapons which would be in their way in the performance of their duties; they might be provided with short swords; a revolver in their hands might be as dangerous to friends as to enemies.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

I cannot suggest any improvement, but more care should certainly be taken in entertaining doolie-bearers, none but really able-bodied men in good health being passed. This was not attended to during the past campaign, as is too well known. Regarding any organization that would make them less defenceless, I can suggest nothing except that they should be provided with light handy swords (Native pattern), and, if they have not courage to use them when required, they should never be exposed to danger except when well protected.

Colonel J. Fairbrother, Commanding
22nd Bombay Native
Infantry.

I should think it would be very easy to improve their condition so far as lascars, mahouts, drivers, *i.e.*, of camels, carts, mules, bullocks, &c., are concerned. Give them a military organization under their own officers; arm them with swords, pistols, carbines, as may be found necessary; lascars to be taught gun drill also; then on ordinary occasions no escort party would be necessary; the drivers, &c., would be able to guard the stores in their charge. Sir Charles Napier's Sind camel baggage corps would prove to be a good model. As regards doolie-wallahs and such like followers, the only way I can suggest for improving them is to be more particular in engaging them.

38. The general station hospital system is more economical than the regimental one: do you consider that this system can be worked in the Native army?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

It is more economical, but there are the following disadvantages to the general station system:—

The distance of the general hospital from the lines of the regiment, and consequent inconvenience and discomfort to the men, who much prefer being treated in their own hospital and by a medical officer acquainted with them, and a regiment being ordered on service, a stranger is at once appointed who knows nothing of the men.

The hospital equipment will not be forthcoming at the general hospital, whereas under the present regimental system a Native regiment can start at a moment's notice, always having its equipment ready.

Colonel H. S. Cobbold, Commanding 41st Bengal Native Infantry.

I do not think it could be worked with advantage. I would at all times keep Native regiments as distinct as possible. I do not think there would be much economy, while the general discomfort would be great, the good feeling that is fostered between the officers, the medical officers and the men under the present system would be much curtailed, and I should view the aggregation of sick as a very great disadvantage.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

The general station hospital would not answer at such stations as Peshawar, or anywhere there were *more* than two Native infantry regiments, and they not in lines contiguous to one another.

Colonel E. Dandridge, Commanding 40th Native Infantry.

I do not see any objection to the station system.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

Of course the general station hospital system can be worked, but I consider it undesirable for the following reasons:—

(1) In the majority of cases regiments are located at such distances apart that one hospital would be almost out of the question.

(2) Men would, in the event often of serious or prolonged illness, be unable to obtain the services of their own comrades of the same class and regiment to attend on them.

(3) They would be under the treatment and care of medical officers unacquainted with their constitutions, in many cases so necessary to obtain correct diagnosis of the cases, and corresponding treatment, while if treated in their own regimental hospitals, by medical men who belonged to their regiments, and who would know something of them, and naturally have a personal interest in them, they would be better cared for, and, when necessary, could always have the attendance of their own comrades of the same class and regiment.

Lieutenant-Colonel H. Worsley, Commanding 7th Bengal Native Infantry.

The general hospital system, even if better and more economical in most respects, would undoubtedly lead to increased malingering.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

The general hospital system is certainly applicable to the Native army, and would prove both more economical and efficient than the present one. I believe this would be the case both in garrison and on service.

It stands to reason that one large hospital could be worked more economically than several somewhat smaller ones; but whether considered in respect to the buildings, medical staff, menial servants, supply of medicines, surgical instruments, &c., the general hospital system commends itself both on the score of economy and efficiency. During war many medical officers would doubtless have to be withdrawn from the general hospitals to accompany troops in the field, but their places could be supplied by the temporary withdrawal, as at present, of medical officers in civil employment, whose duties again could be taken by the now large and well qualified class of assistant surgeons. The pension establishment could supply as many hospital assistants for station duties as might be necessary to release the numbers required for field service. All details necessitated by the change would be worked out, of course, by the medical department.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

The great distances between the lines of Native corps would make the general station hospital system work with great difficulty. Besides in most stations cholera is by no means uncommon, and on the slightest outbreak whole regiments have to move into camp on a notice so short, that a hospital with its attendants could not be organized in time to be of any use; and the same remarks would apply to a regiment on the march. I think therefore it would be impossible to work the station hospital system so as to give satisfactory results.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Most certainly not, either for the good of the service or in the interests of the men: *vide* report D.

Report D.

Dated Peshawar, 8th January 1877.

From—LIEUT.-COL. R. G. ROGERS, Comdg. 20th Punjab Native Infantry,

To—The Adjutant-General in India.

In obedience to your hospital No. ⁷²⁷_{Camp}, dated 3rd instant, I have the honor to report, for the information of His Excellency the Commander-in-Chief, that I am strongly opposed to the system of general hospitals, especially in garrisons or at camps of exercise, and that the feelings of the men of the regiment entirely coincide with mine on the subject.

On active service the establishment of general field hospitals is I know unavoidable, but I also know that the longer a man can be kept with his regiment the better for him, and that as at Umbeyla the men are apt to consider themselves doomed when sent away from friends and relations. No matter what its advantages as regards a larger staff, greater comfort or better appliances, no man can or will be so cared for in a general hospital among strangers as in a regiment attended by his own surgeon, nursed and fed by his comrade, and looked after and cheered by his officers.

I am, moreover, of opinion that faith in his doctor has (especially) among Natives a very great deal to do with a man's recovery. This in a general hospital can never be gained, and for this reason

I strongly deprecate changes of medical officers, changes which prevent doctors from knowing their men and the men, their doctors and which offer such opportunities for malingering—opportunities which with a system of general hospitals would be almost indefinitely magnified.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I am strongly opposed to abolishing the regimental hospital system. I consider that in cantonments one surgeon can easily attend to the hospitals of two regiments, but that on service each regiment should have its surgeon. The surgeons who during peace would not be required for regiments could, as many are at present, be employed in the civil department. I am of opinion that the experience gained by a surgeon in civil employ adds to his value as a surgeon in time of war.

Lieutenant-Colonel J. Hudson, 28th Punjab Native Infantry.

Most certainly; and I can conceive no possible objection to it. As a matter of fact, it is of common occurrence to see one medical officer attending to the hospitals of two or three corps; it would surely be more convenient for him to have all in-patients under one roof.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

Not with advantage. In a general station hospital the men would not receive the same individual care and attention they do in the regimental hospital. They would not be so immediately under the observation of their commanding officer and wing commanders. They would not have the same confidence in the medical Native subordinates. They would have more scope for scheming and shamming. On a regiment being broken up into wings and detachments, or going to a station such as Cachar, the regimental system, or an inferior substitute to it would have to be organized; also on the regiment proceeding on service by rail, route march, or by sea.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Ratray's Sikhs) Native Infantry.

Undoubtedly it can be worked, but I think with no benefit, and with very little saving, and it would have many drawbacks. The men would be averse to go to the general hospital (probably some distance from their lines) unless seriously ill or sent there. By the regimental system the medical officer has the men always under his observation, is well acquainted with most of their habits and constitutions, can readily detect schemers. Every time the regiment marched by the general hospital system, a regular medical establishment would have to be told off to accompany it to its new station; great difficulty would be found in keeping up medical history sheets and obtaining other information, &c., &c.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I think the general station hospital system could be worked in the Native army. The regimental system is certainly more convenient for the regiment, and likely to be more popular with the men, but I see no reason why, in a station where two Native regiments are quartered, with their lines not far apart, one hospital should not be made available for the sick of both.

Major A. C. W. Crookshank, 32nd Pioneers.

I don't think it would answer at all in times of peace, because Native regiments are not as a rule stationed together, and when they are, they are too far apart. In a Native hospital much is done for the sick by their comrades; they are nursed by them and generally fed by them, and the men are dependent on the regiment and its bazaar for all their wants: all this would be difficult in a distant hospital, even though each regiment had its ward. When, however, regiments were alongside of each other, there would be no difficulty in arranging for the men of each regiment being comfortably attended to in a general building. The Native clings, however, very much to the men he knows, be they saints or devils; and away from his own doctor, officers, and regiment, his heart sinks within him, and he conjures up the worst possible evils.

For war purposes I consider that the system which in India has grown up to meet the requirements of active service is the safest, provided it is not abused. Under that system a regiment has its own hospital, and within limited bounds takes care of its own sick, disgorging them at convenient depôts, where field hospitals are formed from the medical reserve. Indian campaigns require for Native regiments the utmost mobility and immediate readiness for a move.

The general system is more suited to the tactics of home campaigns, where troops are kept in large bodies and have better communications: it is also more suited to British troops, who are kept together and at brigade head-quarters.

I saw the field hospitals at Quetta and Kandahar, and the wonder to me was, not that the men died, but that they ever lived at all, so miserable did they seem, and so wanting in the ordinary medicines and stores. Whereas, when I joined the regiment, I found the hospital, though overburdened with sick, fairly well supplied and as comfortable as could be.

I am decidedly of opinion that Native corps should be self-contained, and viewing the strong prejudices of the Native soldier (which have to be respected, as they react on recruiting), I consider each Native regiment should have a medical officer, the establishment given in answer to question 36, hospital accommodation and transport for about 12 men,

and a field-equipment fairly well stocked, not with the whole pharmacopœia, but the most valuable specifics. A reserve should follow the force for the formation of field hospitals, where all hopeless cases and the sick about 10 or 12 should be left. There will be abnormal cases like the 32nd at Gijishk with a daily average of some thirty bad cases, but let us hope these will not be frequent.

Every endeavour should be made to treat the Native soldier at headquarters up to practicable limits in consequence of his extreme dependence on his regiment; he has no purveyor's department to feed him; he has to buy his own food (a difficulty when at a general hospital and he has no money and cannot get an advance or credit); and he generally has to cook it himself, except when absolutely beyond such exertions.

Certainly, it could. I can see no obstacle to it.

Captain H. D. Hutchinson, 40th Native Infantry.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

The general station hospital system could only be more economical than the regimental in case of a large reduction of establishment. In such case great difficulty would arise in time of war, or in case of detachments being sent on service, or when troops are spread over the country during epidemics—

- (a) For field service, one medical officer per corps is the smallest possible allowance, as this number must be always available.
- (b) The Native hospital establishment must be trained men. They cannot be extemporized; therefore they must be kept up in efficient numbers to provide for the requirements of active service.
- (c) The consumption of medicines would be much the same in station and in regimental hospitals.
- (d) Regimental hospitals are already built, while in many stations general hospitals would have to be provided. In fact, unless arrangements could be made for the rapid expansion of the Medical Department when necessary, by drafts from the civil branch, no economy would arise from the station hospital system. Even if this could be managed, efficiency would suffer.

Major A. Batty, 2nd Goorkhas.

It would be most detrimental to regimental efficiency and should be condemned on that account alone. Moreover, even with a regimental hospital, men do not resort to it as soon as they ought to do so. If there was only a station hospital, they would be more disinclined to go to it until their illness became too severe to keep away.

Major F. F. Bowcroft, 4th Goorkhas.

I do not think this system could be worked advantageously in the Native army. The *general hospital system* would be extremely unpopular with all ranks of Natives rightly or wrongly. They would be under the impression that out of their own regimental hospitals they would not be as well attended to or cared for.

Colonel R. Blair, 3rd Native Infantry.

Colonel H. Boisragon, Commandant 4th Sikhs.

Decidedly so.

The general hospital plan may be more economical, but it is never so efficient as a regimental one, and, therefore, on *service* it would prove a false economy and destructive to the benefit of the corps and consequently to the best interests of Government. How could it be carried out effectively, say, with two corps in a station and one being sent out suddenly to the front under the medical charge of a Native hospital assistant? There *must* be a British medical officer with each regiment and a separate establishment.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

The general station hospital system is, I am told, theoretically perfect, but it is altogether unsuited to Native soldiers, who hate station hospitals because they don't get attended to in them; they don't get their medicine, their food, or even their water, and no one takes the slightest interest in them. Proof of this can be got by asking the men themselves.

Lieutenant-Colonel J. J. Doxwell, Commanding 2nd Sikh Infantry.

I do not consider it could. More supervision of regimental hospitals by principal medical officers of stations should be exercised than at present obtains.

Lieutenant-Colonel R. R. Chambers, Commanding 6th Punjab Infantry.

The regimental system is very much the best. The chief economy in the station hospital system would be in the reduction of British medical officers. Say working a station hospital where there were three Native regiments with one medical officer, instead of three regimental hospitals with a medical officer for each.

I do not think the number of medical officers could be reduced by a man even in times of peace in a country like this, where cholera and other epidemics are liable to break out periodically, and where a liberal establishment of doctors is an absolute necessity. If therefore a sufficient number of medical men must be kept up in times of peace, to admit of the regimental system being continued, let it stand.

Major A. G. Ross, Commanding
1st Sikhs.

No, not without trouble; and unless medical officers are men of larger sympathies than are most men. A hospital is meant to receive sick and cure them. Cure requires comfort and rest of mind, and no fretting. Natives of India vary so in habit and custom, that they are very uncomfortable in a general station or field hospital. They become mere numbers and are treated one like the other. They suffer in consequence and miss the specialities of attendance, which is comparatively easy to give them in a regiment. Few Native soldiers get on in a general hospital, and many suffer from insufficient attendance and attention.

Colonel A. Jenkins, Commandant
2nd Madras Native Infantry.

I do not consider the station hospital system can be worked in the Native army without causing intense dissatisfaction; for the sick of a Native regiment have to be fed by their relatives or comrades, and that could not be done satisfactorily when the sick are out of the personal responsibility of the officers of the regiment or beyond the care of comrades and relatives.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

I see no reason why the general station hospital system should not be worked in the Native army, the station hospital being of course in as central a position in the station as possible for the convenience of regiments stationed in it.

Colonel G. Hearn, Commanding
15th Madras Native Infantry.

Not with any satisfaction. It may be cheaper, but it would be most unsatisfactory; there could be no discipline, but much skulking. The present regimental hospital system is the best, and I think the establishment has quite enough to do. It is a mistake to relax discipline even in hospitals. Moreover, in a general hospital you would have men of all kinds congregated together.

Colonel L. W. Buck, Commandant
20th Madras Native Infantry.

I know of no objection to the station hospital system for the Native army, provided the general hospitals are not a very long distance from the regimental lines. The men provide their own food, and it is cooked by relatives and brought to the hospital.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

It could be worked, I suppose, but only to the great inconvenience of all concerned in the regiment, from the commandant downwards. Besides this, sick carriage would have to be entertained to take sick men the distance. At present all regimental hospitals are tolerably near the lines, and the men manage to get there which they could not do if the distance were great, which a general hospital is found to be. One surgeon and two hospital assistants are not very expensive for a regiment.

Lieutenant-Colonel F. H. Tyrrell,
37th Madras Infantry.

It depends on the locality. If regiments or battalions were cantoned close together, it might be worked.

In a station like Secunderabad, where the cantonments of the five Native corps are miles distant from each other, it could not be conveniently worked. I myself should always prefer to keep my own sick in my own regiment.

Lieutenant-Colonel P. A. Carnegie,
39th Madras Native Infantry.

I see no objections whatever. We had to share the hospital with the 17th Native Infantry at Tounghoo in 1875-76, and the men got on well together. There were separate medical staffs for each regiment, but one set would have sufficed.

Major E. Fancee, Commanding
14th Madras Native Infantry.

Certainly, it is a common saying that the surgeon of a Native regiment has nothing to do, and he has very little. The surgeon of my regiment has for months held also medical charge of a wing, 11th Madras Native Infantry, and the head-quarters, and wing, 19th Madras Native Infantry, and his duties certainly do not seem to occupy overmuch of his time.

Brigadier-General H. F. Brooks,
Adjutant-General, Bombay Army.

It is I think most important that each regiment should be complete in itself, and ready to move at short notice, because, as a rule, regiments, or parts of regiments, are more likely to be employed, on emergencies, in India, than brigades or divisions. I am opposed to any reduction of the medical *executive* staff in India, and consider the regimental hospital in all respects better for the local requirements than the station or general hospital.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
(Light) Infantry.

I think there would be no objection to the general station hospital system, as far as I can see, being worked in the Native army. It would be more economical, no doubt, and at the same time the wants and comforts of the men would receive the same attention as at present.

I think, however, that in the reduction of establishments for such a system the requirements of British officers and their families should not be lost sight of, neither should such reductions of the medical establishment be made as to cause any difficulty to arise in the supply of a full complement of medical officers being forthcoming on a regiment being ordered to take the field.

Colonel S. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment, Bombay N. I.

Yes certainly. I know of no reason why it could not be worked in the Native army.

Colonel W. Banerman, 4th
Bombay Rifles.

At large cantonments the general station hospital system might be established with economical results; the system could not be carried out at the smaller stations and where a single regiment was located.

Colonel G. W. Hanson, Com-
manding 9th Bombay Native In-
fantry.

Under the general hospital system the surgeons have but little opportunity of becoming personally acquainted with the men. A medical officer posted permanently to a regiment takes far more lively interest in all that affects their health and comfort; in a few years he gains a considerable knowledge of the individual habits and constitutions of the men. I consider that the regimental is far preferable to the general system.

Colonel H. H. James, 10th Bom-
bay Native (Light) Infantry.

Any general hospital system would be most unsatisfactory; the regimental system is the only one that can be worked efficiently and properly under discipline and control.

The general system encourages malingering, from medical officers not being thoroughly acquainted with the men, and in the field men would not be so well cared for.

Colonel R. Mullaby, Command-
ant 13th Bombay Native Infantry.

What occurs to me is this: supposing the whole of the hospitals in India worked on the station system, on the breaking out of a war would there be a sufficient number of medical officers and subordinates to enable regiments to be fully provided if moving independently? I myself much prefer the regimental system under which the surgeon has an opportunity of making himself acquainted with each man and his complaints.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Certainly, with an equal amount of efficiency. One medical officer could easily attend the sick, usually found in at least three Native regimental hospitals. In small stations separate establishments would of course be necessary.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

In Bombay and other large stations I think it might be introduced with advantage; but in smaller stations, where two Native regiments might be in charge of the medical officer of the general station hospital, a difficulty might arise by his having suddenly to accompany one regiment on field service, thus leaving the rest of the garrison without suitable medical attendance.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native In-
fantry.

It might be; but this is a subject I never considered deeply. I know no reason why it should not.

Lieutenant-Colonel O. V. Tanner,
Commanding 29th Bombay Native
Infantry.

I think it might in cantonments, but in the field I think medical men should not be withdrawn from regiments to base hospitals, as they were in Afghanistan.

39. Can you suggest a better and more economical system in the place of the present one for compensation for dearness of provisions?

Colonel J. Moran, Commanding
27th Punjab Native Infantry.

The only other system that occurs to me is that of rationing the troops by the commissariat; but whether it would, in the long run, be a better or more economical one, I am unable to judge. Besides, I doubt the men liking it so well as having to purchase and select their own food.

Colonel H. S. Obbard, Command-
ant 41st Bengal Native Infantry.

No, I cannot. I do not think an issue in kind would be any more economical, while it would occasion much trouble to the commissariat department, and it might be viewed with suspicion by the Native soldier.

Colonel T. Boisragon, Command-
ing 59th Punjab Native Infantry.

It should not be given to any man beyond the grade of sepoy. It should be limited to two rupees (excepting under the most exceptional circumstances), and the men should be made to understand that, in addition to his pay, when his rations come to beyond Rs. 3-8, this is given him, to the maximum extent of two rupees, as a help to feed himself with in the same way that on arriving at a place where lines have to be built a certain sum only is given him as a help to buy himself.

Colonel E. Dashiell, Command-
ing 40th Native Infantry.

I cannot suggest any plan which would be more economical; but in future I would restrict the indulgence to naicks and sepoy's only.

Colonel G. W. Fraser, Command-
ant 39th Native Infantry.

With the prices of provisions varying so much as they do in different parts of the presidency, the only suggestion I can offer is to do away with the compensation altogether except in certain districts, such as Assam and the lower north-east portions of Bengal, &c. In substitution of the system of compensation for other parts of the presidency, I would recommend that the average rate of compensation granted within the last 10, 12, or 15 years be obtained, and this sum be granted to the army as a fixed rate, whenever quartered where the price of provisions rises above the rate now ruling as that beyond which compensation has hitherto been allowed.

Lieut.-Colonel H. Warsley, 7th
Bengal Native Infantry.

Considering the enhanced price of provisions since the time when the present rate of pay was fixed, no doubt some compensation is necessary; but the form in which it is now given is objectionable. The men do not spend the money so received in food, but look on it as money saved.

It might be better to do away with compensation altogether, and in lieu increase the pay by a certain amount, which amount might be approximately regulated by the average compensation for all Bengal during the past five years. When troops are in the field or at camps, food might be supplied by the commissariat either free or at a fixed rate according to circumstances.

Lieut.-Colonel P. Barris, 11th
Native Infantry.

I am unable to suggest anything more economical than the present system.

Lieut.-Colonel R. J. Walker, 17th
Native Infantry.

The present system is very complicated, but I can suggest no real improvement.

Lieut.-Colonel R. G. Rogers,
Commanding 26th Punjab Native
Infantry.

No; the present system with its checks cuts the soldier as closely as he can be cut. A Government supply of rations in quarters would prove more expensive, and would be most unpopular.

Lieut.-Colonel F. B. Norman,
Commanding 24th Punjab Native
Infantry.

No. The present system is the only one which can be adopted with fairness to the men.

Lieut.-Colonel J. Hudson, Com-
manding 25th Punjab Native In-
fantry.

There is scarcely any point connected with a Native regiment which is, in my opinion, so unsatisfactory as the system of compensation for dearness of provisions, or one that gives more trouble.

I cannot see why the Native soldier should not take his chance with the rest of the population of the country in the matter of the price of provisions, at all events while serving in India in peace time.

During times of famine or unusual scarcity, the Government might make special provision to relieve him; but as a rule I would advocate the abolition of the present system of compensation, and insist on all supplies in sudder bazars being sold at fair rates.

Lieut.-Colonel G. C. Bowcroft,
35th Native Infantry.

I think the present system is the one best adapted to guard against the soldier under-feeding himself, and thus rendering himself inefficient or unable, on emergency, to make due return to the State. It requires careful observation on the part of commandants and wing commanders to see it is not abused. The only substitute for such compensation which suggests itself to me is a permanent increase to the soldier's pay and the abolition of compensation, though its economy and desirability are questionable.

Lieut.-Colonel F. M. Armstrong,
Commanding 45th (Rattray's Sikhs)
Native Infantry.

I am afraid not, unless any saving to Government could be gained by supplying regimental bazars with atta, ghee, &c., by the commissariat, deducting Rs. 3-8 monthly from the sepoy for the regulated rations. The Commissariat by buying largely might obtain the supplies cheaper than the bazar rates, by which the rates of compensation for dearness of provisions are now regulated.

Major A. C. W. Crookshank,
22nd Pioneers.

Certainly, a better and I think it would be more economical. The existing system is convenient administratively, works fairly well, and is so far plausible that it helps the soldier where he most needs it. But I do not like it, as practically it does not fulfil the intentions of Government, and it leads men to starve and feed on coarse grains so as to get a greater balance of pay after paying the bunneah. It is, moreover, peculiar to peace, and has to be dropped in war,—an utterly wrong principle. My idea is that a Native regiment, to do all the work required of an auxiliary army, should be able to feed itself in peace and war independently of all departments.

At present bunneahs buy their grain where they like, distribute it as required to the men, charging price-current rates *plus* $\frac{1}{3}$ th (an anna in the rupee) on it as an additional profit. This price current is supplied monthly by the deputy commissioner, and is fixed, I believe, by a meeting of sudder bunneahs. Now it is known to all that a Native's food can be purchased by individuals at cheaper rates, particularly if purchased wholesale. I would issue to each man his authorized ration (whether he ate it or not), and charge the value of the rations to Government, the commanding officer certifying to the price as the lowest obtainable and not exceeding the local price current. I have fed a regiment on this principle, and I see no difficulty in it; and it would develop a machinery and a system generally practicable in war, for there the commissariat officer would be the wholesale dealer, and issue food in bulk when possible, and when he was not present, the commanding officer, through his existing machinery, could purchase, requisition, or contract. Even if not economical, Government would get a good article for a market value, whereas now it does not purchase the article, and it pays a price fixed arbitrarily by interested sellers.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

Commissariat, local, or regimental agency might be employed to supply rations at the fixed rate of Rs. 3-8 per mensem. Under this system, cheap times would go to compensate for outlay incurred when food was dear. Payments could be made by credits in the general state, and all extra cost incurred could be recovered by contingent bills supported by vouchers. With the Native officer's improved position, &c., there is no necessity for granting compensation to any one above the rank of non-commissioned officer.

Major A. Dattye, 2nd Goorkhas.

The present system appears to me to be a good one. I can therefore recommend no change.

Major F. F. Rowcroft, 4th Goorkhas.

No, I cannot. The present system seems to work well enough. It is not *always* that the men receive compensation for dearness of provisions, but only in times of scarcity.

Colonel R. Blair, 3rd Native Infantry.

Rations to be supplied by the commissariat, and compensation for dearness of provisions to be abolished.

Colonel H. Boisragon, Commandant 4th Sikhs.

I object to it altogether: *vide* my answer to question 35.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Take the average amount paid on this head during the last two years, and increase the soldier's pay accordingly.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

The present system of compensation for dearness of food is simple and adequate. I do not think it exceeds the just rate that a soldier should receive. It is besides a well-known system to the Native soldiers, and therefore had best be allowed to remain as it is.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

As this is intended to be a compensation for dearness of provisions, it must depend on the prices of supplies prevailing at the time, and is therefore always fluctuating. I think that a fixed sum to be paid monthly to the soldiers as rice money would be better than the present system, as the soldier would then be able to calculate monthly on a certain amount. This might be calculated on the average price of supplies which have prevailed for a certain number of favorable years; but of course the last two years which have been years of scarcity, nor even the present time when prices are still high, could be taken as a basis for calculation.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

The men must be paid according to the price of their food. If they are insufficiently fed, they cannot do the work expected of them.

Lieutenant-Colonel P. A. Carnegie, 30th Madras Native Infantry.

Rice is the only provision for which compensation is given in the Madras presidency, and that is fixed at the selling rate of third sort rice. The present system might be altered by taking the average price of rice in each collectorate or district for a certain number of years (say 10) and then fixing the rate permanently in each district for all Native troops serving in it.

Brigadier-General H. F. Brooke, Adjutant-General, Bombay Army.

Bearing in mind the extraordinary fluctuations which occur in the prices of the staple commodities of a sepoy's food, I think it would be hard to devise a system which would be more to the interests of the men than that now in force, though, I believe, many experienced officers would prefer a fixed addition to the pay; but this, it appears to me, would not work so satisfactorily, as in some districts and during some seasons, this addition might not meet the extra expense of living, while in other stations the additional pay would not be absolutely necessary. During the financial year 1878-79 the sum of Rs. 8,58,495 was paid to the sepoys of this army for compensation for dearness of provision. It is true the season was one of great scarcity and high prices, but the amount so issued is very large, and represents an average addition to the pay of each man of Rs. 3-0-0 per month. There is no doubt that the present system is very complicated and liable to be abused, but it appears to me to be on the whole, if carefully and honestly worked, the best which could be devised in the interests of the State, and to meet the requirements of local circumstances.

Brigadier-General A. B. Little, Commandant 25th Bombay Native (Light) Infantry.

No, the prices of provisions fluctuating as they do.

I cannot suggest any improvement in the system now existing of granting compensation. I think it as fair a one as can be found.

Colonel S. Edwards, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment, Bombay Native Infantry.

No, I cannot. I consider the present system the most equitable mode, depending as it does on the prices ruling in the locality of the articles composing the ration of the soldier.

Colonel W. Bannerman, 4th Bombay Rifles.

I would do away with altogether compensation for dearness of provisions to Native officers. I would increase the rates of pay of havildar, naik and private, rupees five, four and three respectively, and give no compensation for dearness of provisions to them unless there

was a famine. I would also suggest that the senior half of the lance naiks in a regiment get one rupee per month extra.

Colonel G. W. Hanson, Commanding 9th Bombay Native Infantry.

The prices of food grains vary so much from month to month that I do not think it possible to fix a rate of compensation which would be at the same time fair to the sepoy and more economical than the present one.

Colonel H. H. James, 10th Bombay Native (Light) Infantry.

No, as compensation depends on market rates, any fixed sum as increase of pay would not meet the difficulty, and judging by past years, prices may be expected to increase.

Colonel R. Mallaby, Commandant 13th Bombay Native Infantry.

I cannot, but I think it might have a good effect on recruiting, and probably be an ultimate saving to the State if an average was struck in the rates for the last say three years and the amount permanently added to the pay.

Colonel Creagh, Commanding 19th Bombay Native Infantry.

A board of experienced officers sat in Poona about four or five years ago on this very question, and suggested, I believe, an increase of Rs. 2 being made to the monthly pay of a sepoy in lieu of all compensation; but, for some reason, the suggestion was not carried out. If it was, a great saving, I feel sure, would accrue to Government.

Colonel A. Carnegie, 21st Bombay Native Infantry.

This is a most difficult subject to deal with. In my pamphlet attached I suggest that an average be struck of the compensation given during the five years previous to 1873, and the amount permanently added to the men's pay; but since 1873 the prices of all grain have increased so enormously, that such a mode of disposing of the question would no longer be just to the sepoy. I can, therefore, suggest no remedy at present but the continuance of the system at present in force, viz., that of fixing the compensation monthly according to the *nerrick* published by the bazar authorities.

Colonel J. Fairbrother, Commanding 22nd Bombay Native Infantry.

I consider it meets the purpose for which it is intended fairly; it might be improved, but I am at present unable to suggest a better.

40. 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?

Colonel J. Doran, Commanding 27th Punjab Native Infantry.

I am not aware how this can be done, but consider the very harassing duties of convoys and escorts might be lessened and taken by the police.

Colonel H. S. Obbard, Commandant 41st Bengal Native Infantry.

I think guard duties of troops in garrison may be reduced.

Of the station-guards enumerated in paragraph 1801, Bengal Army Regulations, I think those furnished for officers commanding divisions, districts, or garrisons might well be withdrawn. Guard for sudder and station bazars are not ordinarily furnished. I consider them unnecessary. The other guards cannot be interfered with.

But in addition to those enumerated in this paragraph, there are various guards detailed at stations that do not appear very necessary. At Morar, for instance, there is a bridge guard that was devised by General Olpherts to annoy the Lushkur. It has gradually been reduced to a havildar and three sepoys, I think it might well be withdrawn. The further side of the bridge is protected by a police guard.

There is a jail guard that appears quite unnecessary. I have known it outnumber the prisoners. As soon as the railway to Agra is completed, the jail itself had better be done away with.

There is a Resident's guard, which appears a superfluity; a treasury guard, which appears unnecessary, as military guards are not provided for treasuries at other stations.

Sometimes a commissariat guard is detailed to watch haystacks.

A guard is detailed for the artillery magazine, which I consider especially undesirable.

And, besides, there are numerous guards detailed to accompany stores, parties of troops, &c., &c., nearly all of which might be dispensed with. I see no necessity for a guard of Native soldiers with British troops marching in relief, &c., &c. The paymaster's treasure can be protected in the quarter-guard, and a couple of policemen or chowkidars can, with the departmental servants, effectually protect all stores.

It is the custom at Morar to collect all the unserviceable stores belonging to Ordnance Department (a great portion of which are not worth carriage) twice a year, and send them, under military escort, to Dholepoor, for conveyance to Agra or Allahabad, though there is a bullock-train running, that would take them much cheaper and better.

Of the guards detailed in paragraph 1803, the three night-guards for commanding officers' mess and hospital might well be withdrawn.

I consider the orderly duty, for which Native infantry soldiers are detailed, more harassing than their guards. And the exposure, in times of heat and wet, tells much upon the health of the men, especially Dogras and other hillmen.

The offices of staff officers are mostly widely scattered, and far from the Native infantry lines. Orderlies are required to be in attendance all day, and are sent about the station at all hours, with

most trivial communications that might well be deferred for the daily letter bag. There is also a great tendency to employ orderlies for purely private purposes, taking about notes, books, and newspapers.

Every staff officer might well be required to provide a couple of messengers for letter-carrying duty, when detail of most of the orderlies might be dispensed with.

Colonel T. Boisragon, Commanding 30th Punjab Native Infantry.

All garrison duties should be taken by the *second* reserves. Regimental guards and orderlies have been reduced to the minimum number

Colonel E. Dandridge, Commanding 40th Native Infantry.

The only way I see of reducing the number of men on duty is by carrying out a standard plan for regimental buildings; the buildings to be so constructed and arranged as to admit of all their doors being watched by a single sentry.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

With the exception of Calcutta, where the guard duties are very heavy in proportion to the Native troops in the garrison, I do not consider that these duties are excessive as a rule, or that they can well be reduced to any appreciable extent. This does not apply to regiments serving beyond the frontier, where the duties are necessarily much more severe.

Lieutenant-Colonel H. Worsley, 7th Bengal Native Infantry.

In many garrisons, without doubt; but details must depend on local and temporary circumstances.

Commanding officers' guards might certainly be done away with, and in most cases the general's guard.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

I presume garrison duties are referred to, and these depend so entirely on the requirements of individual stations, that it is impossible to offer suggestions that would be applicable to all.

Lieutenant-Colonel L. H. Williams, 14th Sikhs,

The guard duties at Umballa, where my regiment is at present stationed, cannot, in my opinion, be reduced.

Lieutenant-Colonel E. J. Walker, 17th Native Infantry.

I think that jail guards, treasury guards, &c., might be allotted to the police.

Lieutenant-Colonel R. G. Rogers, Commanding 20th Punjab Native Infantry.

Yes: let all treasure, commissariat, and other civil or semi-civil escorts and guards be taken everywhere by the police or by watchmen.

Do away with the guards furnished for the quarters of general, commanding, and other officers. Reduce the number of orderlies furnished, and utilize the post for all papers not of an urgent nature.

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

Speaking from the experience of the last three stations at which I have been quartered, I think that the guard duties in garrison are very light.

Of course there may be some stations, particularly those from which a garrison has to be found for a fort, where it may be possible to reduce the guards.

I would, however, suggest that the guard allowed to British corps when on the line of march (*vide* paragraph 1833, Bengal Army Regulations) should be dispensed with. In the month of December last, the 24th Punjab Native Infantry had, under the order above quoted, to furnish guards for two batteries of artillery, a regiment of British cavalry, and a regiment of British infantry. Lieutenant-General Maude ordered these guards to be discontinued, and I believe that the British troops were put to no serious inconvenience thereby.

Lieutenant-Colonel J. Hudson, Commanding 23rd Punjab Native Infantry.

I am of opinion that guard duties in garrison might be very considerably reduced; but the precise way in which a reduction should be effected in each case is scarcely practicable here. Guards over commissariat godowns, &c., should be furnished either by police or chowkidars.

Again, all regimental institutions, such as quarter-guards, bells of arms, store-rooms, magazines, &c., should be placed close to each other, so that they might require the fewest possible number of sentries.

Lieutenant-Colonel G. C. Rowcroft, 35th Native Infantry.

I have none such to offer. The duties are unequal at different stations. At Allahabad they are at the lowest point compatible with the proper carrying out of necessary duties. At Peshawar, with its large Native garrison, the duties are so heavy as to account for much of the great sickness at that station; and the greater the sickness the greater the severity of the duty. I have at times not had in the lines a full relief for the number of men coming off duty of a morning. The severity of the duty at Peshawar was unavoidable when I was there last in 1877, with its then garrison, which had more duties to perform and detachments to furnish, with fewer regiments of 712 men each, than in 1856 with more regiments, each 1,160 strong.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Hattray's Sikhs) Native Infantry.

In many stations I think guards could be reduced; in some stations regiments furnish large jail and bazar guards, which might be taken by the police. General officers and regimental commanding officers do not appear to need night guards at all stations. Many orderlies might be reduced in most stations.

Major R. S. Robertson, 4th Native Infantry, Officiating Assistant Adjutant-General, Allahabad Division.

I do not think they can. Regimental guards are reduced by regulation to a minimum, and any further reduction is not, in my opinion, possible, or, in the interests of the regiment, desirable. I have never seen unnecessary station guards.

Major R. A. Wauchops, 14th Sikhs.

There are no duties for the troops in Umballa except regimental, and supplying orderlies to the staff.

Major A. C. W. Crookshank, 82nd Pioneers.

I hardly think they can, as every endeavour is made to reduce the duties in garrisons. No civil guards are furnished, except in Calcutta; and, where the duties are excessive, it rests with the officer in chief local command to remedy matters.

There is a needless waste of military labor in escorts, and it is common to see escorts detached to a common destination shortly after each other, which might have been amalgamated by a little arrangement. Again, any amount of powder and ammunition may be sent by private firms, through the Government bullock-train without escort, yet a barrel of Government gunpowder or a few rounds of shell require a military escort. This is the normal condition of affairs at Jhelum, for instance, where practically the postmaster judges when an escort is required or not. This duty may be reduced, and, except for a large convoy, the transport or escorting of ordnance stores might safely be left to the road police, a few special precautions being taken. These duties interfere much with a soldier's training.

Another duty which ought to be reduced is detailing a Native guard to protect the commissariat stores of a British regiment on the march. The reason I have always been given is that the British soldier cannot be trusted to protect his own rum. If so, he should go without it: it is a disgrace to a British regiment to require such assistance, and it stands to reason that, if a guard is wanted, the regiment itself should furnish it.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

The guard duties as laid down in paragraph 263, Standing Orders, cannot be reduced in a regiment, except a guard for the commanding officer, which seems utterly unnecessary. The officer commanding troops in garrison would see that more guards were not furnished than were absolutely necessary.

Native regiments might be relieved of many guard duties by the military police, as suggested in paragraph (2), answer to question 26.

Major A. Batiye, 2nd Goorkhas.

Have not had sufficiently recent experience of these duties at large stations. Regimental hospital guards are not always required except when there is a prisoner in hospital.

Major F. F. Rowcroft, 4th Goorkhas.

I think the duties can be reduced in ordinary stations and garrisons by reducing the guards and, consequently, the number of sentries. How often a sentry is to be seen guarding *nothing*! In stations where there are large arsenals, magazines, or treasuries, the guards over these places could not well be reduced; but I think that Native soldiers might be relieved of a good deal of the escort duty they get,—escorting magazines and arsenal stores up and down the country, and for long distances. This duty might well be performed by the police.

Colonel R. Blair, 3rd Native Infantry.

Yes; the commanding officer's guard, and the hospital one.

Colonel H. Boisragon, Commandant 4th Sikhs.

Guards and orderlies have been reduced to the minimum strength. Such minor details should be left to the discretion of officers commanding regiments, garrisons and districts.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikh Infantry.

The duties in each station vary, and each guard would have to be considered. I consider in frontier stations the minimum is used, and I know of none which it would be politic to discontinue.

Lieutenant-Colonel B. R. Chambers, Commanding 6th Punjab Infantry.

The guards to be furnished by troops in garrison as detailed in Bengal Army Regulations are not very numerous, and I do not think would bear much reduction.

Major A. G. Ross, Commanding 1st Sikh Infantry.

In stations where I have been, I do not know of any feasible reductions, save guards of commanding officers and general officers.

Colonel A. Jenkins, Commandant 2nd Madras Native Infantry.

I do not think that the troops are overworked in garrison by guard duties.

Colonel W. Osborn, Officiating Commandant 9th Madras Native Infantry.

In all stations every effort is made to make the guard duties as light as possible, and I do not know of any other arrangement which could be made compatible with discipline.

Colonel G. Hearn, Commanding 15th Madras Native Infantry.

The guards are at present reduced to a minimum.

Colonel L. W. Buck, Commandant
20th Madras Native Infantry.

I suggest that the offices of all staff officers should be in one building. Where there is a civil treasury or bank, all payments should be made by cheque; treasure chests not to be kept in any office; armed guards to be used only over buildings containing treasure, arms and ammunition, and prisoners; other places to be watched by one or two unarmed orderlies. Native regiments require only the quarter-guard to be an armed guard.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

I believe the guards in most stations in the Madras presidency are reduced as much as they can be. Only three men are allowed for each sentry, and there can be no reduction there; and yet the men have seldom more than four nights in bed, and often not that; and this knocks them up, in my opinion, more than anything else, more even than hard work or short rations. Officers commanding divisions and districts are entitled to a guard of 12 men. This, to give them four nights in bed, the regulation number, means occupation for 60 men. The guard might well be reduced, I think, to six privates.

Lieutenant-Colonel F. H. Tyrrell,
87th Madras Native Infantry.

I think reductions might be often made in the strength of some guards, and in the number of orderlies. In many instances guards might be replaced by departmental peons or watchmen; but this would cause extra expense to Government. In peace time the more the services of the military can be utilized for the benefit of the State the better.

Lieutenant-Colonel P. A. Carnegie,
89th Madras Native Infantry.

Yes; I think they could be reduced in many of our large stations if offices could be located nearer to each other than they are. A mess guard for a Native infantry regiment is scarcely required now-a-days, or a commanding officer's night guard. Guards-of-honor appear to be unnecessarily large for any practical purpose; and orderlies should be more sparingly given than they are at present.

Major E. Faunce, 14th Madras
Native Infantry.

Undoubtedly they can in many stations be reduced. I know stations where the commissariat have two and three guards, sometimes large ones; here in Calcutta, with far larger stocks, it has none: police are employed. Why should they not be elsewhere? The arsenal at Calcutta has only one small guard of one corporal and three privates (Europeans), and that only at night; while stronger guards mount day and night over small depôts. In some places, again, jail guards are still furnished by the military. At Raipore and Seroncha in the Central Provinces it is so, I remember. Why should guards mount over the empty houses of Governors and Lieutenant-Governors and Chief Commissioners for months during their absence? The security of the building and property could surely be ensured by one or two policemen quite as well as that of large custom-houses, &c., with their valuable contents. The same may be said of the presidency banks. Private banks do not feel the want of military guards.

Brigadier-General A. B. Little,
Commandant 25th Bombay Native
Light Infantry.

Guard duty is brought, I think, to as low a rate as possible; and I can offer no suggestions as to how it can be further reduced to any appreciable extent.

Orderlies are, I think, often granted to officials who merely make use of them for their own private convenience, and the general station hospital system might also reduce guards slightly; but such reductions would be so small, that they may be hardly worth taking into consideration. However, I can offer no other suggestions.

Colonel R. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment Bombay
Native Infantry.

Yes. In the first place, a reduction might be made in line guards by placing all treasuries and jails under the charge of guards from local or police battalion; also all sudder bazar guards.

With regard to regimental guards, I will take Nusseerabad, where my regiment is quartered at present. The quarter-guard is in one place, the cells in another, the magazine in another, and the stores in another, each requiring a separate guard and sentry for its protection.

There is no reason why these buildings should not be located all together in the form of three sides of a square, the quarter-guard and cells in one building, with the magazine on one side and the stores on the other, thus requiring but one sentry to watch them all.

Colonel W. Bannerman, 4th
Bombay Rifles.

I do not think the guard duties of troops in garrison can be reduced to any considerable extent.

Colonel G. W. Hanson, Commanding
9th Bombay Native Infantry.

In most stations many guards might doubtless be reduced in strength, and others done away with altogether; but this appears to be a question which might best be answered by station authorities.

Colonel H. H. James, 10th Bombay
Native (Light) Infantry.

Guards have been reduced as much as possible at all stations I am acquainted with.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

I have no suggestion to make. I think these duties are carried on as economically as possible for the troops. There might be fewer men employed on orderly duties.

Colonel Creagh, Commanding
14th Bombay Native Infantry.

Several guards in cantonments are certainly unnecessary, and their duties could be equally well performed by the police, or by chowkidars. Latterly, military guards in the Bombay presidency have been considerably reduced.

Colonel A. Carnegie, 21st Bom-
bay Native Infantry.

With the exception of the arsenal and gun carriage factory guards, the others in Bombay may be said to be civil guards, *viz.*, the mint, high court, paper currency, and Bank of Bombay; but as these have been fixed by orders of Government, it is scarcely my province to say whether they might be taken by the police or not with advantage.

Colonel J. Fairbrother, Command-
ing 22nd Bombay Native Infantry.

Do away with jail and treasury guards, make them over to the police, mass the troops in central positions and hill stations, when their training in large bodies could be carried on as at camps of instruction.

Lieutenant-Colonel O. V. Tanner,
Commanding 29th Bombay Native
Infantry.

I do not see that guard duties of the regular army can be much reduced, now that the inner guards of jails are taken by the police.

41. 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?

Colonel J. Doran, Commanding
27th Punjab Native Infantry.

That the regimental system, as far as it went, worked efficiently; and in no one particular—hospital assistants, medicines, surgical appliances, &c.—was there any thing in excess of requirements. It had of course to be supplemented by the establishment of organized depot hospitals, where, on receiving orders to advance, the regiment could leave their sick, &c., &c.

Colonel H. S. Obbard, Com-
mandant 41st Bengal Native In-
fantry.

So far as my experience goes, I think the working of the medical and hospital system as practised generally in India satisfactory and suited to the country. Native doctors should, with reference to their educational attainments and responsible duties, be allowed to rank with Native officers.

I did not see the working of the hospital system in Afghanistan; but there are certain principles that must always be observed on field service. There must be medical officers with regiments to attend to cases as they occur; and men disabled in any way must be sent to the rear, for which a suitable hospital train must be provided.

Colonel E. Dandridge, Command-
ing 40th Native Infantry.

I consider the result of experience in the working of the medical and hospital system as practised generally in India is that in peace time, if expensive, the system at any rate provides thoroughly for the wants of the soldiers, both European and Native. I had no experience of the campaign, but am of opinion generally that, unless it be intended to reduce the medical staff, both European and Native, the regimental system in war time is preferable to any less expensive one. A regiment without its own medical staff and appliances would not be able to move on an emergency without depriving a general hospital of the services of those who probably could not be spared.

Colonel G. W. Fraser, Command-
ant 39th Native Infantry.

I consider it to be as regards the Native army very good. The sepoy is at all times well cared for; and where medical officers are kind and attentive to the patients, as is in most instances the case, the sepoy of whatever class, when ill, never shirks going to the hospital for treatment. I think it would be an advantage, however, were medical officers of regiments changed less frequently than they are, in view to their becoming more intimately acquainted with the men, and the constitutions of those who are more frequently in hospital, and learning to take more personal interest in the men. Medical officers, as a rule, appear to me to do their best to get into civil employ rather than remain with a regiment, the consequence being that a Native regiment is constantly changing its medical man.

Of the results of the medical and hospital systems as practised during the late operations in Afghanistan, I am unable to speak from experience, having only rejoined my regiment from furlough six weeks before the close of the campaign, it not having gone beyond Ali Musjid, where it only arrived at the latter end of March last.

Lieutenant-Colonel P. Harris,
Commanding 11th Native Infantry.

I do not feel myself competent to pass an opinion on so extensive a subject as the working of the medical and hospital system generally in India, but I may briefly state some of its defects during the late campaign which came under my own personal observation. To begin with, the medicine chests with which the regiment was provided consisted of an enormous pair of camel trunks. The strongest camel procurable was allotted to carry them; but they were no sooner placed on his back than

he threw his load, and almost everything in the boxes was smashed to pieces before we left our original station. These trunks were our *bête noir* throughout the campaign. No camel could be found to carry them, as they weighed over 6 maunds when full; and we had at last to have small ones made up roughly by the regimental armourer out of old tea boxes to carry some of their contents in. It is obvious that such encumbrances as these should not be taken into the field; indeed, there can be no good reason why such "monstrosities" should exist anywhere. Each regiment ought to have three, or at least two, pairs of conveniently constructed chests, which, when equipped, would form a light muleload. The 36th Madras Native Infantry were provided with excellent ones.

There appears also to have been a deficiency of medical officers. For instance, at Budesh Kheyl, where the troops consisting of details given in the margin and including camp-followers and kahars numbered about 2,000 souls, there was only one medical officer for the whole force, at a time too when cholera was prevalent. After a considerable time and repeated representations relief at last came in the shape of a second medical officer.

Then there was evidently a deficiency in the supply of medicines. Our medical officer frequently informed me he could not get his emergent indents complied with. On 11th July I proceeded to inspect the wing of my regiment at Thull. I found them in cholera camp and suffering severely from fever as well; yet there was not a drop of laudanum in hospital, nor a grain of either quinine or febrifuge. These medicines, when urgently required, were provided from the private medicine chest of an officer of the regiment. I mention these circumstances as proving that the medical resources of the campaign were, in some instances at least, not equal to the occasion, and should be provided for on a more liberal scale on the next occasion.

Lieutenant-Colonel R. J. Walker,
17th Native Infantry.

I consider the system adopted in Native hospitals very good. The latter part of the question I am unable to answer, not having served in Afghanistan.

Lieutenant-Colonel R. G. Rogers,
Commanding 20th Punjab Native
Infantry.

Satisfactory, with exception of the supply of European medicines and of hospital comforts to Native regiments. The allowance should be largely increased, and medical officers in charge allowed (as in British regiments) to obtain what they may at any time consider necessary on emergent indents.

Lieutenant-Colonel F. B. Norman,
Commanding 24th Punjab
Native Infantry.

In my answer to question 33 I have stated that I am opposed to abolishing the regimental hospital system. There was but little novelty in the general principles.

Of the hospital system as carried out in Afghanistan, as far back as the Peninsular war, if not earlier, there existed a system of field and base hospitals; and it is evident that there must always be hospitals of this description, for it would be impossible for an army to move about hampered with all its wounded and sick. I consider that the objections to the system as practised during the recent operations are as follows:—

1st.—That the regimental hospital establishments were weakened to the verge of inefficiency to supply establishments for the field hospitals.

2nd.—That, more particularly at the commencement of the operations, the regimental hospitals were cleared too rapidly, and that men with but slight ailments, and who would have been fit for duty in two or three days if they had been treated in the regimental hospital, were sent to the base hospital, and their services lost for certainly not less than ten days.

3rd.—That patients were taken away without any urgent necessity from those who were acquainted with their medical histories and characters, and placed under strangers. The result of this was that men who were really sick preferred being treated in the regimental hospitals, whilst the skulkers preferred going to the base hospitals.

4th.—That a strong feeling of antagonism was evinced on the part of a few of the medical officers, to a commanding officer taking any interest in the sick of his regiment; these medical officers maintaining that, directly a man was admitted to hospital, the commanding officer's duties regarding the man ceased, and in fact that he should only be allowed to see him on sufferance.

In short, I am of opinion that to keep an army in a state of efficiency, by preventing skulking and rapidly sending back to their duty men with slight ailments, regimental hospitals should be maintained in a high state of efficiency. There of necessity should be field and also a base hospital; but I would avoid using these without necessity: any large collection of sick is to be avoided. I think I am right in saying that the first case of typhoid at Lundi Kotla occurred in the field hospital.

Lieut. Col. F. M. Armstrong,
Comdg. 45th (Hattroy's Sikhs) N. I.

On the whole very good.

Major R. S. Robertson, 4th Native Infantry. Officiating Assistant Adjutant-General, Allahabad Division.

I have always found the system work well, though no doubt it is capable of improvement. My experience, however, on this subject is small, and I have had none in regard to the recent campaign; and I do not feel competent to make any suggestions, or to answer the next question, number 42.

Major A. C. W. Crookshank, 32nd Pioneers.

I have already answered this question in answer to question 38. The new field hospital system is only partially applicable to the Native army. The field hospitals may be established on the system now advocated at home; but the Native regiment, instead of receiving its unit when detached, should always carry its unit with it. In Afghanistan, when our men were struck down with pneumonia, it was providential that we had our regimental hospital in working order.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

The hospital system adopted in Southern Afghanistan did not appear to differ materially from that which has always existed in India.

Each regiment had its own medical officer and ordinary hospital establishment, and there were general or base hospitals at Quetta and Kandahar.

Base and field hospitals are of course necessary for an army in the field, as it would be embarrassing to carry a large number of sick and wounded; but the regimental hospital establishment must still be kept up when corps are liable at any moment to be sent to a distance on detached duties. This being the case, it is just as well that, while the force is stationary, the sick and wounded, if not in too great numbers, be treated in the regimental hospital. On an advance they should be sent with the field hospital.

Sick and wounded men generally do better in small than in large hospitals, while there is less risk of infectious disease spreading in the former than in the latter.

Southern Afghanistan was no exception to this rule.

In countries where the general convention is not recognized, and where the sick and wounded have more to dread from the enemy than men under arms have, any great extension of the field hospital system becomes difficult, owing to the guards and escorts required. This difficulty is increased in case of long lines of communication without railways or wheeled carriage.

Major A. Battye, 2nd Goorkhas.

Present system works well enough in garrison, also on service, with following exception. At the base hospital a military officer is required to take command of all the men who are sent there, to report their arrival to their regiments, to keep a nominal roll of them, see that they receive proper advances of pay. When discharged to rejoin their regiments or sent on sick leave, report the facts to their regiments, send monthly accounts of all advances made. The medical officer has quite enough to do to look after their bodily ailments, and cannot attend to the abovementioned requirements. The want of such a military officer at the Peshawar base hospital was felt during the Cabul expedition, when there were too many men in the hospital to be attached to regiments stationed at Peshawar, especially as these regiments were liable to be moved at short notice.

Major F. F. Rowcroft, 4th Goorkhas.

I consider the present system jogs along, so to speak, fairly enough during *peace time*. But during the late war in Afghanistan the system was very inefficient often, and the medical arrangements often nearly broke down. The *kahars* were a source of endless trouble,—a mob of stupid, undisciplined, disorderly men, without any organization. These men were hurriedly entertained from all parts of the country. A very great number of these men were *not kahars* at all, but had been forcibly seized and impressed by the police of the various districts, and forwarded on to the front as *doolie-bearers*. On active service, in the event of a retrograde movement, when a column of troops is passing under fire, through narrow defiles, an unorganized, undisciplined body of men like the *kahars*, panic-stricken, obeying no orders, and rushing forward trying to get out of fire, might greatly hamper the movements of the column and endanger its safety. But the above state of things *must necessarily exist* without a properly organized *army hospital corps*—an absolute necessity, I am of opinion, for active service.

Colonel H. Boisragon, Commandant 4th Sikhs.

I do not know the general practice in India, or how it was carried on in Afghanistan; but I am satisfied with the hospital system in my battalion.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

I think that the regimental hospital system works well; it is good for the men, and it makes regiments complete in themselves and able to move at a few minutes' notice and secretly. It would be impossible to do this with the field hospital system, which is altogether too cumbersome and complicated for the Native army. On service the regimental hospitals must be supplemented by *depôt* hospitals.

Lieut.-Colonel J. J. Boswell, Commanding 2nd Sikhs.

I have had no experience of other than the regimental system, I am of opinion that base and field hospital systems worked well.

Major A. G. Ross, Commanding 1st Sikhs.

Medical officers can answer this fully. I think base hospitals work well. So do field hospitals for people not attached to regiments.

Colonel A. Jenkins, Commandant
2nd Madras Native Infantry.

Colonel W. Osborn, Officiating
Commandant 9th Madras Native
Infantry.

Colonel W. A. Gib, Commandant
25th Madras Native Infantry.

Lieutenant-Colonel P. A. Carnegie,
39th Madras Native Infantry.

Colonel S. Edwards, Commanding
2nd (Prince of Wales' Own)
Grenadier Regiment Bombay
Native Infantry.

Colonel H. H. James, 10th Bom-
bay Native (Light) Infantry.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

Colonel J. Fairbrother, Com-
manding 22nd Bombay Native
Infantry.

Lieutenant-Colonel O. V. Tanner,
Commanding 29th Bombay N. I.

42. 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. Doran, Commanding
27th Punjab Native Infantry.

Colonel H. S. Ollard, Com-
mandant 41st Bengal Native
Infantry.

Colonel E. Dandridge, Com-
manding 40th Native Infantry.

So do field hospitals work well temporarily when a regiment has to leave its sick, and clear out on an expedition or series of operations. As soon as the regiment halts again, it should again keep its own sick.

The established system, when carried out in its entirety, has worked satisfactorily in both medical and hospital systems in India. I have had no experience in its working in Afghanistan.

The medical and hospital system, as far as my experience has been in this presidency, works satisfactorily. The medical subordinates are, as a rule, intelligent, steady men, well instructed in their profession, and perform their duties efficiently.

I think the medical and hospital system in the Madras army is very good indeed, and works well. The hospital assistants are a well-educated and a very useful class of men, and appear to have much more knowledge of their profession than the similar class in Bengal, at all events such as I have seen.

Personally I know nothing of the recent operations in Afghanistan but what I have read in the papers and learned from other sources, and it seems to me the medical department was short-handed. There appears to be no reserve of any sort of army surgeons; for it is now nine months since the officer in medical charge of my regiment was taken away and sent to Burma, and he has not been replaced yet.

I cannot speak about Afghanistan; but my experience in India is that in many stations two medical officers are doing work which could easily be done by one. If it were possible to amalgamate the British and Indian medical services, the saving to Government would be very great.

I am unable to give an answer to the latter portion of this question, not having been engaged in the operations in Afghanistan. The medical and hospital system works satisfactorily in India in peace time.

The present regimental system works very well, and I would not disturb it. The general hospital system causes confusion, and loosens control and proper supervision, causing friction between commanding officers and medical officers.

As far as I have seen, it has worked well; but the subordinate medical establishment, when a regiment is sent on service, should certainly be increased. This was not done in the Bombay brigade, and caused much inconvenience.

Fair, so far as I have seen; but I cannot speak of the late Afghanis-
tan campaign.

I consider the base hospital system bad if it necessitates the shifting of doctors and their withdrawal from regiments on service.

I can only state broadly that I consider the arrangements for the transport of the sick both in *personnel* and *matériel*, particularly on field service, admit of very great improvement; but I am not prepared with any suggestions as to how this is to be carried out.

The arrangements for transport of sick in cantonments might be modified with advantage by substitution of a lighter and more portable doolie. In all other respects they appear satisfactory. Such a doolie I consider especially necessary, too, for field service. For the actual field of battle, doolies and hammocks will always be required; but for conveyance of the sick and wounded to the rear, the carriage available in the country, and suited to it, whether camels, or carts, or whatever else it may be, must be largely employed. The cumbersome ambulances of European fashion are only suited to good roads. Attention might well be directed to the construction of suitable kajawals for use with the ordinary camel saddle; light and expensive bamboo frames on wheels that could be drawn by one mule or pony; and the best means of making an ordinary country cart comfortable for transport of the sick.

For cantonments, I consider the transport arrangements to be quite sufficient, and the cost but trifling. On field service the *personnel* chiefly failed by reason of the physical unfitness of the men employed, and their want of unsuitable clothing. Suggested that a kalar corps be raised in connection with the transport department (the latter will, I presume, be set on foot), to be composed entirely of able-bodied kalars. The men to be employed in peace time by the commissariat, transport, and other Government departments.

In regard to *matériel*, the cumbersome doolie to be replaced by a folding stretcher with a collapsible hood, something after the fashion of a hill dandy, which can be carried by two men.

Colonel G. W. Fraser, Commandant 39th Native Infantry.

The present arrangement for the transport of sick in cantonments, consisting only of one doolie and four kahars, can scarcely be reduced, and appears to answer the purpose on ordinary occasions.

On the line of march in peace time I am of opinion that no sick whatever should accompany a regiment, but should be left behind until recovered. Under the present system they are only an encumbrance to the battalion; and the fact of their being exposed to the bitter cold at night or to rainy weather in a tent, and, worse still, in an open country cart on the line of march (as is now done), cannot but be detrimental to health, and retard recovery.

Any man falling sick on the line of march should be dropped at the first station the battalion passes through.

When a regiment proceeds on active service in the field, this would of course be done.

For the conveyance of men who may fall sick on the line of march, regiments should be provided with ambulance carts capable of carrying six men, and constructed with a well below the body of the cart in which food for the cattle drawing it, for three or four days' supply, could be carried. They should also be fitted with lockers inside to carry medicines and surgical appliances. By the adoption of this plan one ambulance would do the work of six doolies or 36 kahars (six to a doolie on line of march), besides carrying all the medicines, &c., and requiring but one driver to each cart. A similar system would be adopted on field service in the plains, the number of ambulances per regiment being increased to meet the contingencies of service.

This would save the large army of kahars that now accompanies a force in the field in India.

In mountain warfare no other expedient but doolies and dandies, with their necessary complement of kahars, appears practicable; but all sick and wounded should be left behind as far as possible at field hospitals, established at such points as may be found convenient; from whence again they might be sent, in severe cases, requiring more prolonged treatment, to base hospitals in the rear.

Lieutenant-Colonel H. Worcester, 7th Bengal Native Infantry.

Arrangements for the field appear most defective. It might be advisable to form a corps similar in constitution to the 'Krankenträger' of the German army—a corps with a military organization and a certain amount of military training, supplemented by instruction in a few minor medical details connected with the binding of wounds and the carriage of the wounded.

Lieutenant-Colonel P. Harris, Commanding 11th Native Infantry.

In cantonments, if the general hospital system is adopted, an ambulance wagon would be the best means of conveying the sick between barracks and hospitals, as well as the most economical in the end; but on field service I question whether any better method can be devised than the present dandy carried by *regular* kahars, as our field of operations is invariably in a country not practicable for wheeled carriage.

Lieutenant-Colonel L. H. Williams, 14th Sikhs.

I am of opinion that the present arrangements are sufficient for cantonments. I would recommend a better class of dandy for service. Those issued to the regiment at Peshawar for the Afghan war were found very unserviceable. I would also suggest the employment of camel kajawahs for the conveyance of such men, as being more economical.

Lieutenant-Colonel R. J. Walker, 17th Native Infantry.

The arrangements are sufficient in cantonments. Only four bearers and one doolie are allowed; and this cannot in any way be reduced. I have had no experience of field service, so cannot give an opinion on the latter part of the question.

Lieut.-Col. R. G. Rogers, Commanding 20th Punjab N. I.

Vide report on "Transport."

Lieutenant-Colonel F. B. Norman, Commanding 24th Punjab Native Infantry.

I cannot see that any great improvement can be made in the arrangements for carrying the sick in cantonments. It possibly would be an improvement if all the doolie-bearers were regularly enlisted, clothed in uniform, and armed with a small sword; but I do not think they would perform their duty in a more efficient manner. On service, ambulance carts should be used when practicable, and I think that the dandies should be of the Lushai pattern; also that the proportion of doolies might be reduced, and dandies substituted in lieu.

From—LIEUT.-COLONEL F. B. NORMAN, Commanding 24th Punjab Native Infantry,
To—The Secretary, Army Organization Commission.

I have the honor to forward my replies to the questions sent to me with your letter No. 63 of the 8th instant, and in doing so, avail myself of the privilege accorded in the fourth paragraph of your letter.

I have stated that I consider that the strength of a Native battalion on a peace establishment should not be less than 800 sepoy. A battalion of 600

Strength of a Native battalion.

sepoys, if suddenly ordered on service, is, as a rule, from the very commencement of a campaign overworked; and this tells seriously upon its efficiency as the campaign progresses. It is obvious that the regimental guards for a battalion of 800 men would not be of greater strength than for a battalion of 600. With our present weak battalions the men are overworked. It is many months since the men of the 24th Regiment Punjab Native Infantry have had three nights in the week in bed; and only 3 per cent. instead of 10 have been allowed to go on furlough. I attach, in support of my suggestion, a present state of the regiment as it was on the day it started on the second expedition to the Bazar Valley. The men who were left behind at Jumrood had only one night in seven in bed. I also attach a present state of the regiment after eight months' hard work.

I am very much opposed to the establishment of a reserve for the Native army, as I consider that in time of popular disturbance, particularly if it were of an agrarian character, the men of the reserve would be likely to make common cause with the malcontents.

Reserve for the Native army.

Holding this opinion, however, was I considered no reason why I should refrain from giving my opinion on the various questions on this subject contained in the paper you sent me. I think one point deserving the greatest attention is that the number of men to go to the reserve annually should be limited; otherwise our small regiments would soon be rendered inefficient. I deprecate men of the reserve being allowed to join the police, unless this latter body is put under more strict military superintendence than it is at present.

I would suggest that all pensioners of the Native army should be made to clearly understand that, in times of emergency, Government has a right to their services, should they be in a fit state of health to perform garrison or other light duty. It will be remembered that, at the commencement of the mutiny, Sir Henry Lawrence ordered all the pensioners in Oudh to report themselves at the nearest military station. After the mutiny many men were struck off the pension establishment because they had not proved their loyalty by obeying this order. The principle I advocate is not, therefore, a new one. But, in order that the men should clearly understand that Government had a claim upon them, I would recommend that an article to this effect should be added to the Indian Articles of War, and that it should be one of those ordered to be read to the troops every quarter.

Pensioners of the Native army.

With regard to question 26, the proviso regarding expenditure prevented my recommending what I consider a matter of almost vital importance; and that is, an increase to the pay of non-commissioned officers. These men are the backbone of a regiment; their duties, more particularly since the introduction of musketry instruction, are onerous and responsible, and their prospect of promotion to the commissioned grades very remote. I would earnestly recommend that they should receive an increase of pay, say of one rupee, for every year's service in the non-commissioned grade up to twelve years' service. This would be a substantial increase without bringing their pay too close up to that of a jemadar.

Pay of non-commissioned officers.

I consider that something is required to brighten the careers of Native officers. The want of prospects is of course chiefly felt by the men of this class who have entered the service as commissioned officers. The pay of Native officers has been much improved of late years, and the grant of full pension after 32 years' service was a great boon. But I think that some plan should be devised of rewarding Native officers of all grades who may have performed good service by the bestowal of a medal and honorary title, as suggested by me in reply to question 26.

Honorary titles and medals for Native officers.

prospect is of course chiefly felt by the men of this class who have entered the service as commissioned officers. The pay of Native officers has been much improved of late years, and the grant of full pension after 32 years' service was a great boon. But I think that some plan should be devised of rewarding Native officers of all grades who may have performed good service by the bestowal of a medal and honorary title, as suggested by me in reply to question 26.

Present state of the 24th Regiment Punjab Native Infantry, 24th January 1879.

DETAIL.	Subadars.	Jemadars.	Havildars.	Nalka.	Buglers.	Sepoys.	Total.	REMARKS.
Bazar Valley Expedition ...	5	4	21	20	4	300	354	Orders to enlist 200 more men were received on the 13th December 1878, the regiment being at the time at Nowshera.
Effective ...	3	3	11	13	11	107	138	
Recruits ...	...	...	...	...	1	57	58
Jumrood { Sick in hospital ...	...	...	...	...	...	1	1
Musicians ...	...	...	2	...	...	12	13
Staff employ	4	4	
On duty with Lieut.-Genl. Maude, C.B., V.C.	2	4	...	27	33	
Sick in base hospital, Peshawar	2	3	...	28	33	* More than half recruits.
At depot in Jhelum ...	...	...	1	...	...	64	65
On recruiting duty ...	...	...	1	...	...	11	12
Sick at other stations ...	...	...	...	...	...	2	2
On leave ...	...	1	...	...	...	5	6
On sick leave ...	...	...	...	...	...	2	2
Absent without leave ...	...	...	...	...	...	3	3
Total ...	8	8	40	40	16	613	755	
Short ...	...	...	...	...	...	157	157
Nights in bed 1. Establishment ...	8	8	40	40	16	800	912	
Excess ...	...	...	...	...	...	...	...

F. B. NORMAN, Lieut.-Col.,
Commanding 24th Punjab Native Infantry.

Present state of the 24th Regiment Punjab Native Infantry, 24th August 1879.

DETAIL.	Subedars.	Jemadars.	Havildars.	Naiqs.	Buglers.	Sepoys.	Total.	REMARKS.
Effective	5	4	27	29	10	262	337	Orders to discontinue recruiting until the regiment has been reduced to a peace establishment were received on the 8th July 1879.
Recruits ... ..	...	...	...	...	2	162	164
Sick in hospital and convalescents ... ..	...	1	3	1	...	83	88
In confinement ... ..	...	...	...	...	...	1	1
Musicians ... ..	...	...	1	...	...	12	13
On detachment duty at Lundi Khana	1	...	3	3	1	44	52	
Ditto at entrenched camp, Lundi Kotal ... ..	...	1	1	3	1	45	51
On command at Peshawar... ..	...	...	1	...	...	...	1
Recruiting duty ... ..	...	...	1	...	...	...	1
Furlough	1	1	2	2	1	20	27	
Leave	1	1	...	...	1	12	15
Sick leave ... ..	...	...	1	2	...	16	19
Absent without leave ... ..	...	...	...	...	...	3	3
Depôt at Jhelum ... ..	...	...	...	...	...	63	63
Total	8	8	40	40	16	723	835	From the 17th December 1878, the date the regiment arrived at Jutrood, to the 20th August 1879 the casualties were as follows:— Killed in action ... 4 Died of wounds ... Nil Died of diseases ... 49 Invalided ... 15
Establishment	8	8	40	40	16	600	712	
Nights in bed 211. Excess ... ..	...	...	...	...	...	123	123

F. B. NORMAN, *Lieut.-Col.*,

Commanding 24th Punjab Native Infantry.

Lieutenant-Colonel F. M. Armstrong, Commanding 45th (Rattay's Sikhs) Native Infantry.

In cantonments the arrangements seem all that can be required. In the field I would suggest a certain number of mules to be attached to each regiment where wheeled carriage is not available. In the last campaign many sick could easily have ridden; and each man thus riding would have saved one doolie and six bearers. More Native medical assistants are required with regiments in the field, also better means of sending small supplies of medicines, &c., with detachments. The want of this was often felt.

Major A. C. W. Crookshank, 32nd Pioneers.

I have generally answered this question in my replies to queries 41, 33 and 36.

In peace and war the *personnel* might be reduced and revised as I have pointed out.

The *matériel* in peace I believe more than is really required, and, except in the more important drugs, might be reduced. For war an allowance to meet the wants of say 15 cases for three months would suffice, if reserves are obtainable.

As regards transport, the doolie maintained with each regiment might be dispensed with, and a few stretchers to be used by the men given instead.

On the march, a light ambulance should replace the two doolies now allowed, and which generally carry the medical officer and the mess. In time of war, I think 12 good Lushai doolies and a few camel kajawahs fully sufficient for the transport of all the sick which ought to accompany a regiment: generally the more sick transport there is, the more men there are to be carried.

As regards the *matériel* for transport, the old-fashioned doolie should be utterly and for ever condemned, and so should every doolie. The Lushai doolie answers every possible purpose, and is carried by four men. The carpet dandy supplied to the force was simply an instrument of torture, and an utter want of common humanity could alone have dictated the order for its supply. It was not fit to carry a sick cat in, much less a human creature and soldier; and it could not even be used to carry a tiffin basket. Of camel kajawahs we had various patterns: those used by the Afghans for the transport of their women seemed good, and we should take the opportunity of being in Afghanistan to get a good pattern, and a store of them should be kept up. In the Transport paper I speak of kahars. Newly-trained men are merely food for the hospitals, and have to be carried instead of carrying others. All kahars used with regiments in garrison should be enlisted for general service, and be kept continually at work. When war breaks out, they should at once be drafted off to the terminus nearest the theatre of war, and their places taken by locally entertained men. We should thus always have a proper supply of *bona fide* bearers.

Similarly, at convenient depôts in India, say Madras, Bombay, Calcutta, and Lahore, or Pindi, there should be stores of clothing, dandies, kajawahs, &c., enough for a force of say 5,000 men, or 20,000 in all.

N.B.—I subjoin replies to questions 33, 41, 42 from Surgeon McKay, in medical charge of the regiment, an excellent and most practical medical officer:—

"33. I do not think that the station general hospital for Native troops can be satisfactorily carried out.

As a rule, when more than one Native regiment is stationed in one cantonment, they generally are placed at each end of that station; consequently the hospital would be a long way from one of the regiments, and would entail besides other inconveniences and increase of doolie-bearers.

There would be difficulties in the feeding arrangements. A bunniah with his establishment would have to be appointed, as the patients could not go to the regimental bazar, nor could their friends always be at liberty to take them their food.

Sepoys have a great dislike of being away from their regiments. This of course cannot be given exactly as an argument against the general hospital system; but it ought to be taken into consideration, especially as caste is recognized.

The men are much less likely to sicken, would I think be better looked after, and would feel more comfortable in a regimental than in a general hospital.

They would not be under the supervision of the officers of the regiment. Unlike the British service, there would be no economy in the hospital establishment. Perhaps one shop-coolie from one of the corps and a bhistic could be dispensed with; but against these would be the pay of four doolie-bearers at the least.

There would be no economy with regard to surgeons and hospital assistants.

There would be a saving in certain medicines; but when that is considered, it would be found to be very trifling.

With regard to the instruments, those not frequently used were ordered some time ago into store, and now if required they can be obtained on loan from the Deputy Surgeon-General's office. This gives rise now and then to some inconvenience; but on the whole I think it is a good plan.

Looking at the doctor and his treatment, I would prefer the general hospital; but with regard to the patient and his comfort, the regimental hospital is to be preferred.

On field service the general hospital for Native troops is an absolute necessity, but it must be carried out thoroughly; half measures are worse than useless.

My experience from the late Afghan war on the Kandahar side is that the regimental system failed.

The general hospital system for Native troops would not be so economical as in the British service, as there is only 1 medical officer to each regiment instead of 3; consequently with a division of 5,000 men 5 or 6 extra medical officers would be required, allowing for only 1 per 50 sick per 5 per cent. of strength—a very small percentage.

In the 2nd Division (General Eiddulph's) the field hospital system was partially and imperfectly carried out; but it succeeded so far that it took a great number of sick, who were an incumbrance to the different regiments.

The general system must succeed, if properly equipped and thoroughly carried out.

I do not think that anything is needed beyond the 1 hospital doolie and 4 kahars at present with each regiment.

On field service, if there be no field hospital, carriage for 10 per cent. of strength ought to be allowed to each regiment, 4 per cent. of dandies and 6 per cent. of camel kajawahs.

If a field hospital is formed, each regiment ought to have carriage for 2 per cent. of strength, $\frac{1}{2}$ per cent. dandies, and $1\frac{1}{2}$ per cent. of camel kajawahs.

The Lushai doolie is the lightest, most comfortable, uncomplicated, and easily mended.

The hammock dandy is a bad mode of conveyance; it is too short, too near the pole for comfort, and it compresses the sides, rendering it useless for cases of chest diseases and also for wounded.

In reckoning the strength of a regiment for sick carriage, some allowance ought to be made for the camp-followers, including the kahars. One sick kahar, if he has to be carried, renders two dandies useless to the regiment.

Medicines.—The heavy cumbersome camel trunks ought never to accompany the regiment (even on an ordinary march in India). A pair of mule trunks or panniers and a field companion with a few splints are ample for two months. Arrangements could easily be made to replenish them when required.

On field service the general hospital system for Native troops is a necessity; but in cantonments I cannot see that it can be carried out satisfactorily, and certainly there will be no economy.

H. K. MCKAY,

Surgeon, 32nd Pioneers.

Colonel R. Sale Hill, Commanding 1st Goorkhas (Light Infantry).

The arrangements for transport of sick in cantonments are simple enough. So long as each corps has its own hospital, a doolie, as at present, is sufficient.

On field service it is quite time changes were made in the means of carrying the sick and wounded. The old pattern doolie should be at once discarded, and such a horde of doolie-bearers as accompanied the army of Afghanistan should never be seen again.

In India there are few localities where wheeled carriage cannot now be used, so that light 4-wheeled carts, on springs, and drawn by bullocks or mules, should be adopted. Such carts might hold 10 men sitting, or 2 men lying down and 4 sitting, with their arms and accoutrements. On the box-seat the hospital assistants might ride, as it can scarcely be expected that these men can attend to their duties as they should do after a long march on foot. In a country unfit for wheeled carriage light doolies (such as the Bourke or Hamilton doolie) and Lushai dandies, with water-proof sheets, might be provided.

Of the former 2 and of the latter 4 per regiment would, in ordinary cases, be sufficient. The remainder of the sick carriage should be made up with camel kajawahs or mules. The kajawahs should be of the Pathan pattern, with bars across the camel's back, and not such as are used for carrying baggage and are hung by chains. Mule-saddles should have backs somewhat like arm-chairs, and could be used for bullocks, if necessary.

Major A. Batty, 2nd Goorkhas.

In cantonments no change is required. For service a certain number of net hammocks on strong but light bamboo poles are much

required for carrying wounded men quickly off the field. They would be particularly useful to accompany advance and rear guards, and other detached parties in hills or plains (chiefly in the hills).

Better arrangements required for entertaining kahars for field service. Some of the men sent to the 2nd Gorkhas for the Malta as well as Cabul expedition were quite unfit for their work. Particularly on the Cabul expedition, when some of them looked like very old pensioners. One was nearly blind with age; another was in his dotage. Some more were pronounced physically unfit, and had to be sent back. One of those men told me that he had been *forced* to come by some Native official of his district. It is not at all improbable that good men are taken before the officer who has to pass them, and afterwards changed for helpless old men without friends, who are forced to take their places.

A minute descriptive roll of all men entertained by a British officer should be sent with them.

Major F. F. Rowcroft, 4th Gorkhas.

The present arrangements seem to work well enough in *cantonments* and during peace time; but I think the cumbrous doolie might be abolished in favor of a good light dandy, *covered*. For active service I think Native regiments should have a larger proportion of dandies for the carriage of sick and wounded men than is at present allowed. But medical officers of long considerable experience would be better fitted to answer this question.

Colonel H. Boisragon, Commandant 4th Sikhs.

Fide reply to question 41. Regimental hospital system in fighting line; a general one at different central bases.

Lieutenant-Colonel F. H. Jenkins, Commanding Corps of Guides.

In this regiment the transport for the sick is quite sufficient. Besides kahars to carry doolies and dandies, we have 10 pairs of camel kajawahs, by which means four sick men can be carried on a camel. The kahars are well accustomed to their work. They start on a campaign with sufficient clothing, and they are just as well looked after as the sepoy. During the whole of my service I have never known an instance of regimental kahars shirking their work on service; and I think every regiment ought to have a certain number of kahars permanently attached to it; and I think regiments serving in the Punjab ought to have camel kajawahs, so as to keep the number of kahars as low as possible. Camel kajawahs might also be kept in store, to be used in campaigns in the hills. The kahars who were hired at the commencement of the war were in many instances not used to the work. They had not proper clothing at first, and many of them never recovered from the hardships they underwent before they were supplied with warm clothing. A great deal of money was wasted on these people.

Lieutenant-Colonel J. J. Boswell, Commanding 2nd Sikhs.

Punjab Frontier regiments are equipped for immediate service; and the following establishment for sick transport is kept up by each regiment, and on ordinary expeditions has been found to answer all requirements:—

1 sirdar of kahars.	8 durri dandies.
1 mate.	3 Bareilly dandies.
48 kahars.	5 pair kajawahs.
8 doolies.	4 mule-boxes.

The Bareilly dandies were introduced experimentally a few years since, but practically are a failure. The old-fashioned square doolies are antiquated and cumbersome, while durri dandies are most difficult to lie in. I would suggest the following establishment and *matériel* be substituted:

1 sirdar of kahars.	1 mate.
48 kahars.	

All to be armed with a tulwar and shoulder-belt.

Sixteen Lushai dandies, with waterproof sheet, to throw over pole in case of rain.

Five pairs camel kajawahs, with covers. These should be on principle of those in use with Punjab Frontier Force, and not like those supplied for this expedition, which have all broken over and over again, while my regimental ones, which have been in use for years, are as strong and serviceable as ever.

Three pairs mule-trunks for medicine.

One pair camel-trunks, which are required to contain the larger surgical instruments, splints, &c., which cannot go in mule-boxes. I would suggest the kahars, as at present, be available during the hot weather as punkha-pullers, &c., by officers of the garrison, but that a charge of Rs. 3 per man be made, Re. 1 to be paid the kahar, and Rs. 2 to be credited to Government. This would effect a saving of Rs. 50 to Rs. 60 per mensem per regiment. The above establishment would suffice for an ordinary frontier expedition near its base; it would require to be augmented according to its distance from the base.

Major A. G. Ross, Commanding 1st Sikhs.

Field service duties should be lighter.

Six kahars to every dandy. Abolish durri dandies. For bearers take kahars, and not cultivators and shepherds and fakirs, and all kinds of people unaccustomed to carry either doolie or dandy.

Camel kajawahs might be lightened and made more comfortable. All pack-saddles might be arranged for men to ride on.

Use carts where there are cart roads. In lightening doolies, make them strong, and not seek for "jims" which complicate matters. Let a doolie be a doolie, only made lightly and strongly, and with interchangeable poles. Do not try for clever dodges of turning the doolie into a table, &c., &c. These fail in the hands of rough men.

Colonel A. Jenkins, Commanding 2nd Madras Native Infantry.

The arrangements for the transport of the sick of a Native regiment, and for the protection of the sick during transit from cold and motion, are not adequate in cantonments or on field service.

I would suggest lighter and more roomy ambulance carts being used (with moveable sleeping berths) for the partially helpless sick, and doolies for the wounded and very helpless sick, of such a pattern as will permit of the patient continuing on it as on a sleeping cot in the hospital tent after the march.

Colonel L. W. Buck, Commandant 20th Madras Native Infantry.

Instead of doolies and sick carts, I would have for serious cases pony tongas, to hold with the driver four men sitting up or two lying down. For trifling ailments, the Madras bullock cart in ordinary use; it is light and goes on any road, and will hold eight Natives. Bearers for doolies are now hardly procurable in some parts of the country. They have always to be pressed, and require much looking after.

Colonel W. A. Gib, Commanding 25th Madras Native Infantry.

As already stated, there is no sick carriage with a Native corps in cantonments. If a doolie was suddenly required, I should have to indent on the commissariat for one; and I should not get it for hours. Either that, or I must borrow one from the garrison hospital or from the hospital of a British regiment, supposing there was one in the place.

The doolie-bearers and doolies are both good on the Madras side. The munchrils are also light and excellent.

I cannot suggest any improvement in them. The sick carts also in use in the Madras army are very good. I certainly cannot suggest any means by which reduction in expenditure could be effected.

Lieutenant-Colonel P. A. Carnegie, 39th Madras Native Infantry.

In cantonments very little sick carriage is required, and there seems to be no difficulty in providing it; but for the field the system of doolies carried by bearers (or coolies) hired in any district where they are obtainable is very objectionable, and I believe broke down completely, so far as Madras troops were concerned, in the late war. I can offer no practical suggestions beyond enforced registration of doolie-bearers in each collectorate where they can now be obtained. In certain districts, particularly those south of Madras, I doubt whether any could be obtained, as the Native seldom travels in that way now.

Brigadier-General A. B. Little, Commandant 25th Bombay Native Light Infantry.

I consider the arrangements in cantonments are all that are required.

For field service it would be necessary to organize a special ambulance corps. This would no doubt be a costly affair, but it is nevertheless quite necessary. I would employ *stretchers*, to be carried by two men, to move the wounded off the field to the field hospitals, and ambulance carts to carry them, if necessary, any distance. It is simply cruelty carrying the wounded in the common carts of the country. This question requires a vast deal of consideration to deal with it properly, and data which I have not.

Colonel S. Edwardes, Commanding 2nd (Prince of Wales' Own) Grenadier Regiment Bombay N.

Greater care should be exercised in selecting men as doolie-bearers; also in weeding out the old men. They should be formed into corps with a certain amount of discipline, properly clothed, and shod. On the outbreak of a war all sorts of men are entertained, to whom boots and clothing are issued, which they at once sell, as was the case on the formation of the expedition to Abyssinia. A little organization in time of peace would prevent all this confusion and waste on the outbreak of war. In peace time their service could be utilized in many ways in cantonments in lieu of obtaining hired labor from the bazaar. All the punkha-pulling and watering of tatties not only of the men, but of officers, might be done by them. They might furnish guards for empty public buildings, be employed in the barrack and commissariat stores, &c.

With regard to the material, the ambulance cart at present in use, although heavy and cumbersome, does fairly well in cantonments, but is quite unserviceable off made roads.

The Bombay doolie is too heavy even for cantonment work. The dandy is the most suitable conveyance for the sick both in cantonments and on service. A serviceable pattern should be selected out of the many submitted and tried lately, and should be adopted for general use.

The camel kajawah of the reclining pattern does very well for mild cases of sickness or convalescents; but owing to the jolting motion of the camel, it is not suited for the transport of men suffering from severe illness or from bad wounds. Stretchers, one per company, should always be in regimental charge, so that some of the men might be taught the use of them, and how to handle a wounded man so as to place him on one. The bandsmen of a regiment would be most suitable for this work. They should be trained as soldiers in case of being called upon in an emergency to use a rifle; but on ordinary active service they would be more efficient as stretcher-carriers than as soldiers.

Colonel H. H. James, 10th
Bombay Native (Light) Infantry.

I have no suggestions to make. It appears to me that the medical transport arrangements as they stand are fairly good. Roads are often so bad in India, that wheeled transport for the sick cannot be substituted entirely; and I know of no other kind of transport likely to be more economical or efficient.

Colonel R. Mallaby, Commandant
13th Bombay Native Infantry.

In cantonments I see no necessity for altering the present system. In the field the raising of special ambulance corps would entail a very serious addition to a peace establishment, as it would involve the existence of at least a permanent skeleton corps in *personnel* and a full establishment in *matériel*. If the *personnel* is to be in the highest state of efficiency on the outbreak of a war, it must have had a previous training. It might be of use to train in peace a certain number of men in regiments for service with the ambulances, but it would have the disadvantage that it would take away from regiment men when they would be most wanted with regiments.

General observations by COLONEL R. MALLABY, Commandant 13th Bombay Native Infantry.

Observations asked for in paragraph 4 of the Secretary's letter.

In the replies to the questions, I have advocated the following:—

1. A modification in the strength of European officers.
2. The transfer of the duties of paymaster from the adjutant to the quartermaster.
3. The addition of pioneers to regiments.
4. The employment of regiments beyond the presidency.
5. Argued against localization in any form, and against drawing families towards regimental head-quarters.
6. Enlarging the area of recruiting.
7. Enlisting by nationalities and rest by castes, and restricting the strength of any one nationality to one-third the strength of the regiment. It is worth considering whether it might not be desirable to have in each presidency depôts where men might be trained ready for drafting into regiments, and from which the additional numbers required to place regiments on a war footing might be obtained instead of drawing volunteers for our regiments which might ultimately be required in the front.
8. The earlier pensioning of the Native soldiery, coupled with their being placed on a roll, as a reserve, and in the meantime employed in the Government offices, drawing the emoluments of present civil incumbents, their pensions being in the meantime in suspense.
9. I have disapproved entirely of the English reserve system as applied to India. You do not want a trained warlike population in India; it could only be a menace. You want men to complete your regiments to a war establishment when a war breaks out; and these could be always in hand in the mode I have mentioned above.
10. An entire revolution in the dress of the men. I would retain their present arms, but have a sword bayonet instead of the bayonet; an arrangement of under-clothing being all that is required to meet extremes of temperature.
11. The formation of military circles for the training of men employed in Government offices.
12. Promotion from the ranks.
13. Mixed regiments.
14. Increase of pay instead of allowance for dearness of provisions.

Colonel Creagh, Commanding
19th Bombay Native Infantry.

In cantonments a doolie and four bearers are allowed for the conveyance of the sick. In the field, as I have before stated, the number of bearers should be reduced one-half; and the carriage for the sick, carts or camels, supplemented, when necessary, from the commissariat department. The dandy supplied to the Bombay brigade is most faulty, being merely a breadth of canvas attached to a pole, the person carried being forced to hold on by the pole to prevent himself from falling out. For a wounded man it would be simply torture.

The subject of transport is one that requires great knowledge and deep study; and as I have not devoted my attention to it particularly, and have had but limited experience in the field, I will not trouble the Commission with an opinion.

Colonel A. Carnegie, 21st
Bombay Native Infantry.

Having now to the best of my ability replied to the several questions submitted to me, I would beg to add a few remarks on the annual invaliding of the Native army; the number of foreigners allowed in regiments of Bombay Native Infantry; and the special organization which in my opinion is required for the Marine Battalion under my command.

First, then, with reference to the invaliding. The present system is that men considered unfit for service by the regimental committee are sent before a general invaliding board for a second or final examination.

Now to this system I have two objections. First, that in very many cases the opinions of the regimental committee, which is composed of the commanding officer, the adjutant, and the medical officer (by every one of whom the case of each man is well known and understood) is set aside by the members of the general invaliding board, who cannot possibly have the same means of judging what the antecedents of the men are. Personally I have more than once felt extremely hurt at my opinion being thus set aside; more especially when men have been sent back to me who never performed another day's duty, and for whom I had to apply for a special board.

But this is only one objection to the system, another being one of expense. For instance, men are now sent from out-stations in the Bombay circle at the expense of Government to appear before the general invaliding committee at the presidency, and those rejected by that committee are entitled to a free pass to rejoin their regiments for another year, when the same thing has to be done over again.

Under these considerations, therefore, I am of opinion, both on the score of efficiency and economy, that the general invaliding committee should be done away with, and the opinion of the regimental boards should be considered final.

Secondly.—With reference to the number of foreigners allowed in Native regiments in the Bombay army, I believe that it is not only my individual opinion, but that of almost every commanding officer, that the number of foreigners should be increased from one hundred to two hundred.

Thirdly.—I would now beg to offer a few remarks on the special organization in my opinion required for the Marine Battalion.

I do not consider the double-battalion system advocated by me for the Native army in general suitable to this corps, as 1,200 men would be considerably over the number ever likely to be required for the special duties devolving on it. I would, however, suggest that the strength of the battalion be permanently fixed at 800 men, with its present establishment of European and Native officers. I make this suggestion as the battalion now furnishes two complete companies for permanent duty in the Persian Gulf, besides detachments on board several of the Indian marine vessels; and from a conversation I recently had with Admiral Bythesca on the subject, I inferred that he is very anxious that the marines should be more generally employed on board those vessels under the proposed new organization.

Under these circumstances, in my opinion it is necessary to augment the battalion by 200 men, so that, while performing the extra duties required of it in the Persian Gulf, &c., it would still be in a position to take its proper proportion of garrison duties.

I trust I may be permitted to remark that, from the constitution of the Marine Battalion, I consider it one of the most useful and serviceable regiments in the Indian army. It has no caste-prejudices to prevent the men all cooking and messing together, so that it can be sent on service, either afloat or on shore, at the shortest notice; and in the latter case with a considerably less amount of carriage than would be required for most Native regiments.

Lieutenant-Colonel O. V. Tanner, Commanding 24th Bombay Native Infantry.

I consider the doolie at present in use too heavy and cumbersome. I have often seen them carried on camels, there being insufficient kahars, or the kahars being sick. A lighter kind of carriage would be preferable, even if not quite so comfortable, as it would be more likely to be present when required.

Remarks by Lieutenant-Colonel D. B. Young, Officiating Controller of Military Accounts, Bombay.

I would submit that a Native infantry regiment should consist of at least two battalions; that European officers should be interchangeable; that the regiment should have one fixed station from which it should send, where necessary, a certain number of men for a short service at a particular station—say Surat from the head-quarters of Ahmedabad; that a battalion of the regiment should be sent, when needed, for garrison to, say, Burma, Aden, or Bombay, none of which places would form regimental head-quarters; that men, after being not more than ten years with the colors, should pass into the reserve on not more than three or less than two rupees a month; that these men should assemble annually or biennially, or even triennially, for training, being provided with a free railway pass to and from the nearest station to the regimental head-quarters, at which place all arms, clothing, and accoutrements would be kept.

It may be urged against this system that a district or country which now gives a large number of recruits, and to which pensioners now retire, would possibly not be the head-quarters of even one regiment (notably the Southern Konkan, where there are no troops, and yet 8,000 pensioners reside there). But this, though a forcible objection as urged from present data, might be considerably reduced in practice, as the men of the reserve might find inducements to locate themselves near the head-quarters of their regiments, or local regiments might find local recruiting-fields. I think the advantages might be considered.

1st.—Elasticity as to numbers, as there would be always ready a considerable number of trained and seasoned soldiers, who would revert, after the crisis had passed, to ordinary civil life. The system of ordering a number of recruits to be entertained on the breaking out of a war or the despatch of certain regiments on active service does not seem to meet the requirements of the State, as the war is most probably concluded before the recruits so entertained have become drilled men. These recruits thus remain as supernumeraries, and are a source of recurrent and needless expense. Even supposing that the war is prolonged, they still must be very young and unseasoned.

2nd.—Absence of all families and impediments when a regiment is sent to serve at a comparatively foreign station—say Burma, Bengal (province), or Aden.

3rd.—Power of sending a considerable body of European officers with a regiment on active service, as the battalion at regimental head-quarters would become more of a dépôt or training establishment for reserves called in or recruits entertained. Thus the European officer would be available at the time of need, and yet the regiment would not be crowded with this expensive element in quarters. I think it may be admitted that a Native soldier is so orderly and helpful, that he requires in peace little supervision; and the European officer, if in large numbers, and thus having little to occupy him, is apt to deteriorate.

4½.—The providing of a real home for the European officer where he may possibly accumulate property and be thus somewhat induced to give up to a certain extent the craving for early and constant return to England.

In connection with this system, I would have inspectors-general of Native infantry and cavalry, who would probably, if the three armies of India were one, have no local or family ties with the regiment inspected. This system is worked in the artillery in India, with I believe satisfactory results, and should compare favorably with the present one of sending an infantry general to inspect the interior economy of a cavalry regiment.

Very senior officers would be viewed as manœuvrers of large bodies of troops, such being annually assembled at certain centres. The cost of this would not, I think, be prohibitory, if it were a fixed rule that troops should be viewed as on active service as regards tents and baggage, but that Government considered it as part of the conditions of service that such annual training was not to form a reason for the grant of butta or other incidental expenses.

If a system of regimental carriage were in vogue, this would tend to lessen the cost to be debited to the immediate head of such camps. Besides, it might not be necessary that the regiment so assembled should be respectively strong, as the great end to be sought would be emulation between regiment and regiment, prevention of the deteriorating effects of remaining long in one station, mobility, and the accustoming of the general commanding to the handling of troops of all arms.

I submit that a reduction in guard and orderly duties is desirable. For instance, in Bombay 2 havildars, 2 drummers or buglers, 1 lifer, 39 rank and file, and 2 boys may be detailed daily for guard and orderly duty in each regiment of Native infantry. I do not say that that number is told off, but it may be, and possibly is, in some regiments. And it will be remembered that this is for regimental duty only. There are, besides, the line-guards and orderlies. In the latter class considerable economy might be expected. For instance, the Judge Advocate-General, Bombay, has two orderlies in addition to four peons. As his office establishment consists of three clerks, it may be questioned how work can be found for this large staff of messengers.

I think that there cannot be a more wasteful expenditure of labor than the system of regimental guards and sentries in peace in cantonments. This system has, it may be concluded, originated in war and been carried into quarters, partly owing to custom and habit, and partly to a possible advantage, it may be supposed, to afford for keeping men out of mischief. It is not imagined that now it is desired to pretend to keep men occupied by making them accustomed to do really nothing for many days in the year; and I question whether they are kept out of mischief. On the contrary, having nothing else to do, they may contract a habit of talking rather wildly as to their own army, regimental or individual prowess; or they may originate some foolish plan for varying their legitimate duties. For instance, when the Bombay troops relieved the Bengal regiments in Rajputana about the year 1850, at one guard the word was passed that it should turn out to salute a rat which was said to daily appear at a certain hole; at another to turn out at midday to salute the tomb of a holy man.

I think that it would be advantageous to transfer from the adjutant to the quartermaster all pay matters. The former has sufficient other and more legitimate duties; the latter is a comparatively idle man. If the office allowance now given solely to the adjutant were divided, it would be ample for the separated work, especially if it were ruled that, after a certain period, only Native soldiers should be employed in regimental offices. Such an order would tend to minimize fraud, encourage education; and remove a difficulty apt to be experienced in getting a civilian clerk to proceed with the regiment on foreign service.