

EAST INDIA (PUBLIC WORKS DEPARTMENT).

RETURN to an Address of the Honourable The House of Commons,
dated 17 December 1888;—for,

“ COPIES of, or EXTRACTS from, CORRESPONDENCE relating to the relative
position of CIVIL ENGINEERS and of Officers of the ROYAL ENGINEERS
in the PUBLIC WORKS DEPARTMENT.”

India Office, }
18 December 1888. }

J. A. GODLEY,
Under Secretary of State for India.

(*Sir George Balfour.*)

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COPIES of, or EXTRACTS from, CORRESPONDENCE relating to the relative position of CIVIL ENGINEERS and of OFFICERS of the ROYAL ENGINEERS in the PUBLIC WORKS DEPARTMENT.

— No. 50. —

Public Works.—Public Works Department.—General.

To the Right Honourable the Marquis of *Hartington*, Her Majesty's Secretary of State for India.

My Lord Marquis,

Fort William, 16 December 1881.

WE have the honour to acknowledge your Lordship's Despatch, No. 50, dated 8th September, regarding the re-organisation of the engineering establishment of the Public Works Department.

2. Our proposal to create a class of clerks of works intermediate between the engineer and upper subordinate classes does not commend itself to your Lordship's judgment, and instead, it is proposed, for our consideration, that a proper flow of promotion in the engineer establishment should be obtained, without an undue increase of expense :—(1) by limiting the number of admissions ; (2) by re-adjustment of ranks ; (3) by a limitation of age in certain ranks ; and, (4) by the encouragement of spontaneous retirement. In order to apply satisfactorily the last two means, your Lordship proposes a revision of the pension rules, and the institution of a provident fund. These latter measures were not absent from our thoughts in the consideration of the re-organisation of the engineer establishment which resulted in our Despatch, No. 97, dated 2nd November 1880, but we did not think that their introduction into the discussion of the organisation of one Department was justified by the scope of our instructions. We now cordially accept your Lordship's suggestions, and proceed to consider the best way of giving them practical effect.

3. The total number of engineers sanctioned before the reductions of 1879 was 1,015. The reduced establishments sanctioned by us early in 1880 aggregated 879. The revision just completed after a year's experience of the reduced staff has resulted in a total sanction of 954 (*see* Appendix A.). By effecting the re-organisation of the military works branch in the manner detailed in our Military Despatch, No. 345, dated 24th September 1881, a reduction of 127 engineers must be made in this number. The resulting number sanctioned will then be 827. The salaries of this number of officers, divided into grades on the present system, and on present rates of pay, would amount to 5,16,000 rupees per mensem. But we have carefully considered the future of the railway branch, and have come to the conclusion that, by having recourse to the contract system more largely than heretofore, and by a more general construction of such works by private enterprise, the number of officers may gradually be reduced from 213 to 147 within the next few years. If our hope of attracting private enterprise largely to the construction of railways should be disappointed, we should still have a sufficient number of supervising officers, who, when necessary, would be supplemented by temporary employes engaged for the job, so far as our wants exceeded the number of supernumeraries which reduction in the sanctioned scale would cause. By the time these supernumeraries become absorbed, there will, we anticipate, be a larger field in India for the selection of temporary men. This reduction in the railway branch would bring the sanctioned number of engineers down to 761.

4. Taking then 761 as the normal strength of our engineering staff, we propose to divide them into grades in each list as shown in the centre columns

RELATIVE POSITIONS OF CIVIL ENGINEERS AND

in Appendix A. The proportion of grades and classes which will prevail under that classification will be as follows:—

Chief engineers	-	-	-	-	2·234	} 7·884
Superintending engineers	-	-	-	-	5·650	
Executive engineers, 1st grade	-	-	-	-	12·352	} 61·235
Executive engineers, 2nd grade	-	-	-	-	14·192	
Executive engineers, 3rd grade	-	-	-	-	16·426	
Executive engineers, 4th grade	-	-	-	-	18·265	
Assistant engineers, 1st grade	-	-	-	-	15·112	} 30·881
Assistant engineers, 2nd grade	-	-	-	-	15·769	

The number of chief and superintending engineers has been determined according to actual present requirements. The proportion of executive to assistant engineers has been fixed at 2:1; and the executive engineers have been divided into four grades, the numbers in which, beginning at the highest, are in the aggregate multiples of six, seven, eight, and nine, respectively; half the assistants have been placed in the 1st grade of that class. For the present, however, owing to the presence of supernumeraries, the ratio of executives to assistants would be 3:2.

5. The cost of the whole establishment of 761 engineers so distributed would be about 5,18,000 rupees per mensem, or about the sum shown above to be the cost of 827 engineers, distributed according to the system now in force.

6. The number of executive engineers on the scale proposed is increased by 32 per cent. of their present strength, while that of assistant engineers will eventually be decreased by 50 per cent. Counting in, however, the number of supernumeraries, the reduction of assistants in the first instance will be only 32 per cent. of the present strength of that class. The number of executive divisions would not be at once increased proportionately to the increase in the number of executive engineers. If a large disproportion between the number of executive engineers, and the number of executive divisions were likely to be a permanence, it would be a serious drawback to the proposal, but there is no doubt that as railways are developed, and the prosperity of the country increases there will be a very large demand for additional works, necessitating a corresponding increase in the working power of the Department by the creation of new divisions. When in the course of time, and by the growth of work, the spare executive engineers are absorbed, and the effective strength of the Department increased by the employment of temporary assistants, it would be necessary, in order to secure proper supervision, to vary the above proportions somewhat by increasing the number of the chief and superintending engineers. The ultimate proportions might be:—

Chief engineers	-	-	-	-	3 per cent.
Superintending engineers	-	-	-	-	7 „
Executive engineers	-	-	-	-	60 „
Assistant engineers	-	-	-	-	30 „

We should desire to work within these proportions as a maximum without reference to your Lordship.

7. At the average rate of promotion which we anticipate with the proportion of ranks now proposed, an officer should attain the several departmental grades at the ages given below, assuming that he enters the service as a 2nd grade assistant engineer at the age of 22:—

Assistant engineer, 1st grade, at the age of	-	-	-	-	25
Executive engineer, 4th grade	-	-	-	-	29
„ „ 3rd „	-	-	-	-	34
„ „ 2nd „	-	-	-	-	39
„ „ 1st „	-	-	-	-	44

As selections for the higher classes of superintending engineers will be made as a rule from the executive engineers, 1st grade, every officer might fairly calculate on about one-third of his total service being spent in a rank above that

that of 2nd grade executive engineer, assuming the total service to be 33 years; and of those who rise by selection above the rank of executive engineer, the average service as superintending and chief engineer would probably be about eight years, or one-fourth of the total service.

8. The present strength of the engineer establishment is 963, of which the removal of the Military Works Branch to the control of the Military Department will take away 127. The balance is 836, which is 75 in excess of the proposed normal strength of 761. These supernumeraries must be gradually absorbed, and meanwhile they will, to the extent to which they exist, render the employment of temporary officers unnecessary. The annual number of vacancies in a strength of 761 officers may be put down at 30. We propose, until the supernumeraries are absorbed, to leave, as at present, one-fourth of these unfilled, and to retain one-fourth of the remainder for the Indian Colleges.

This will give:—

Unfilled vacancies	-	-	-	-	-	7
Indian Colleges	-	-	-	-	-	6
From England	-	-	-	-	-	17
Total						30

The whole of the supernumeraries would, by this arrangement, be absorbed in the course of about nine years.

The strength of Royal Engineers, including the Military Works Branch, now in the Public Works Department is 228, or, approximately, 25 per cent. of the total. This will be reduced to 100 by the transfer of 127 to the Military Department. We propose to fix 100 as the number of Royal Engineers to be retained in the Public Works Department. This arrangement, taking 4 per cent. as the number of casualties from ordinary causes, would divide the appointments from England as follows:—

Royal Engineers	-	-	-	-	-	4
From Cooper's Hill	-	-	-	-	-	13

The number of Royal Engineers will be affected by reversions of officers to the Imperial Establishment after a tour of service. This, however, need not affect the number from Cooper's Hill. On the subject of the supply of Royal Engineers for service generally in India, we are about to address your Lordship in the Military Department.

9. As to spontaneous retirement, we are prepared to put civil engineers on the same footing as members of the Covenanted Civil Service, that is, to permit retirement after 25 years' service, of which 21 years must be active service.

10. We have frequently felt the inconvenience of being obliged under existing rules to retain in a subordinate position officers who have grown old without exhibiting qualities that would justify their promotion. And we gladly avail ourselves of your Lordship's permission to propose rules for the compulsory retirement of such officers. We conceive that these would be suitably expressed as follows, viz., that an officer should retire—

If not at 30 years of age an assistant engineer, 1st grade.						
"	35	"	"	executive	"	4th "
"	40	"	"	"	"	3rd "
"	45	"	"	"	"	2nd "
"	50	"	"	"	"	1st "

The existing rule of the Civil Pension Code, Section 106, rule 6, to apply to all higher ranks. The above, as will be seen by a comparison with the figures in paragraph 7, would require the retirement of officers who are about a full grade behind the average rate of promotion. The proposed rules should not work with undue hardship, and they would leave ample margin for reformation in an officer not absolutely incompetent.

11. We now proceed to consider the changes we think should be made in the pension rules in favour of civil engineers. The rates of pension suggested by your Lordship, after certain periods of service, are :—

After 20 years, 2,500 rupees per annum.

„	25	„	4,000	„	„
„	28	„	5,000	„	„
„	30	„	6,000	„	„

subject in all cases to a maximum of half average salary. We do not understand that it is your Lordship's desire that these terms of service and rates of pension should be regarded as limiting the conditions of retirement to the exclusion of all intermediate terms and rates. For our part, we should much prefer to accept them as indications of the rates appropriate at the several stages of service specified, in a graduated scale of pensions adapted to every period of service. This is specially desirable under a system of compulsory retirements, in order that an officer may not have to retire when just in view of a very substantial increase to his pension.

12. It may be observed that under existing rules, the maximum pension after 25 years' service is 5,000 rupees per annum; and that under the above rates this maximum is not attained till after 28 years' service. On the other hand, a higher pension of 6,000 rupees per annum is allowed by the new rates after 30 years' service. In regard to the latter rate, we have not had a sufficiently long experience in the Public Works Department to determine by observation how many men are likely to survive to obtain it; but in an exposed service it is probable that the number would be less than that arrived at by calculation on existing data. Taken alone then, we should have hesitated to adopt the new rates as suitable, or acceptable to the officers concerned. But with the addition of a provident fund on the lines laid down below, this difficulty would disappear.

13. Taking then the rates named by your Lordship as fixed points in a scale of pensions, we would propose to complete it as follows :—

			Rupees per Annum.				Rupees per Annum.
			<i>Rs.</i>				<i>Rs.</i>
10	years' service	- - -	1,000	21	years' service	- - -	2,760
11	„	- - -	1,060	22	„	- - -	3,040
12	„	- - -	1,140	23	„	- - -	3,340
13	„	- - -	1,240	24	„	- - -	3,660
14	„	- - -	1,360	25	„	- - -	4,000
15	„	- - -	1,500	26	„	- - -	4,360
16	„	- - -	1,660	27	„	- - -	4,740
17	„	- - -	1,840	28	„	- - -	5,140
18	„	- - -	2,040	29	„	- - -	5,560
19	„	- - -	2,260	30	„	- - -	6,000
20	„	- - -	2,500				

For a shorter service than 10 years, a gratuity should be given as at present, subject to a maximum of 6,000 rupees.

14. We are prepared, as suggested by your Lordship, to permit all civil engineers to reckon as qualifying service the following periods of furlough :—

2 years' furlough in 20 years' service.

3	„	„	25	„
4	„	„	30	„

subject

subject to one condition, viz., that the furlough must be taken out of India. This is intended to meet the case of natives and persons born and educated in India, for whom the indulgence is not called for, unless it also involves the benefit to the State which would be derived from enlarged experience and new ideas.

15. We desire to calculate all pensions on the basis of allowing one-sixtieth of average salary for each completed year of service, including the furlough specified in the preceding paragraph, and subject to the rates laid down in para. 13 as maxima.

16. Our proposals in regard to the Provident Fund are to reduce the present receipts of all executive and assistant engineers by 50 rupees per mensem, and of all officers of higher rank by 100 rupees per mensem, and then to credit each officer of whatever rank with 100 rupees per mensem in the shape of deferred pay claimable, with interest, only on the termination of service. The sums thus credited would be allowed to accumulate at the rate of 2 per cent. half-yearly, compound interest, until each transaction should be closed by the death or retirement of the officer concerned. On retirement each officer would receive the accumulated sum at his credit, or in case of his death before retirement, his estate would receive it. As this sum consists of deferred pay already earned, and interest thereon, it should also be given to officers dismissed for misconduct, less any claim Government might have against the officer at the time of dismissal.

17. Your Lordship will perceive that practically this arrangement involves an addition of 50 rupees per mensem to each officer below the rank of superintending engineer, this increase being accompanied by a corresponding deduction from the present rate of pay, which, together with the addition, would be credited to the officer's account in the books of the Provident Fund. Officers who have been selected for the posts of superintending and chief engineers should, we think, pay the full amount of the contribution to the fund from their present salaries, which are high enough to enable them to do so without inconvenience.

18. If an officer from the date of his joining, at the age of 22, is thus credited with 100 rupees per mensem, it is calculated that he would on an average have the following sums at his credit, after each of the periods of service specified below, (1) on the supposition that payments to the fund cease during furlough, and (2) that they are continued--

After 10 years' service (1 year furlough) 13,250 rupees, or, including additions during furlough, 14,750 rupees.

After 15 years' service (1 year furlough), 23,000 rupees, or, including additions during furlough, 24,625 rupees.

After 20 years' service (2 years' furlough), 33,000 rupees, or, including additions during furlough, 36,664 rupees.

After 25 years' service (3 years' furlough), 45,000 rupees, or, including additions during furlough, 51,340 rupees.

After 30 years' service (4 years' furlough), 60,000 rupees, or, including additions during furlough, 69,230 rupees.

After 33 years' service (4 years' furlough), 71,400 rupees, or, including additions during furlough, 81,790 rupees.

19. The contribution of Government to the fund being 50 rupees per mensem for each executive and assistant engineer, the aggregate would be, for a staff of 761 officers of all ranks, 35,000 rupees per mensem. But as we do not propose that officers of Royal Engineers should receive any contribution from Government, and as we may estimate that 90 of the 100 will be in the ranks of executive and assistant engineers, that sum may be reduced by 4,500 rupees per mensem. We may say, therefore, that the Government contribution will be about 30,000 rupees per mensem. This, as being deferred pay, should be a charge against the current Public Works grant.

20. The effect of the contributions by Government to the fund is given in detail in the note which forms Appendix B. to this Despatch. It will be observed that the Government aid to officers who do not advance beyond the 1st grade of executives is considerably greater than to those whose career does not stop there. This is as it should be, for the inefficient officers having been weeded out grade by grade, the 1st grade executives may be assumed to be good and efficient officers, but lacking the qualifications for superintending engineer, or only the opportunity for advancement.

21. We have said that we do not propose supplementing the subscriptions of officers of Royal Engineers by an amount equal to their own contributions as in the case of Civil Engineers, because the pay of the former, owing to their net military pay which they receive in addition to their departmental pay, is on an average about 150 rupees per mensem higher than the pay of Civil Engineers of corresponding rank. There would be no objection, however, to their contributing 50 rupees or 100 rupees per mensem to the fund. Such contributions would be optional, but once made, the amount contributed could not be withdrawn till the officer making them was removed from the Public Works Establishment by transfer, retirement, or death.

22. We would treat military officers other than Royal Engineers in the same way.

23. If the scheme should meet with your Lordship's approval, the new scale of pay and pension, as well as contributions to the Provident Fund, should be made compulsory on all persons entering the engineer service after their introduction. Officers already in the Department should have the option of electing for the new scale of pay, subject to the new conditions of pension and contribution to the Provident Fund, or for the present scale of pay and the present pension rules.

24. With the introduction of the new arrangements we propose to cancel the rule (P. W. Code, chap. 1, sec. 1, para. 7) under which increments of 50 rupees per mensem may be given to executive engineers, 1st grade, for all officers who elect for the new rules.

25. We are quite prepared to admit Natives into the Engineer Establishment as it is now proposed to be constituted, on two-thirds of the salaries drawn by those appointed in England, and to afford every encouragement to their entering. The matter is receiving our careful consideration, and we shall shortly address your Lordship regarding it.

26. In respect to the power to entertain engineers temporarily, which we desire to have accorded to us, we have already addressed your Lordship in our Financial Despatch, No. 269, dated 22nd October.

27. If the foregoing proposals should meet with your Lordship's approval, we propose to apply the principles, so far as they are applicable, to the Accounts Branch of the Public Works Department, which is now chiefly recruited from the Engineer Establishment.

We have, &c.
 (signed) *Ripon.*
W. Stokes.
Rivers Thompson.
J. Gibbs.
E. Baring.
T. F. Wilson.

No. 18.—Public Works.

To His Excellency The Right Honourable The Governor General of India in Council.

My Lord Marquis,

India Office, London, 22 March 1883.

Para. 1. YOUR letter in this Department, No. 50, dated 16th December 1881, submitting, in reply to my predecessor's Despatch, No. 50, of the 8th September 1881, a scheme for the reorganization of the Engineering Branch of the Indian Public Works Department, together with your Letter, No. 8, of the 20th February 1882, describing the measures which were taken by your Excellency for arriving at the estimate for its future strength, has engaged the anxious attention of my predecessor, and has also received my consideration in Council. In the present Despatch I propose to communicate the conclusions at which I have arrived. Should you see your way, as I trust may be the case, to accept these as a settlement of the various questions involved, I authorise you to take the necessary steps for carrying them into effect. But should you on the other hand, after full consideration of what is said in this Despatch and of the whole of the circumstances of this difficult subject, especially in reference to its possible effect on the general finances of India, be desirous of introducing any modifications of what is here laid down, I shall be willing to receive your suggestions and to give them my best consideration.

2. The objects embraced in this reorganization are the following :—

- (a) The reduction of the numerical strength to such proportions as will suffice for the work to be done.
- (b) The re-adjustment of the grades so as to make promotion more rapid.
- (c) The offer of terms of retirement which will have the effect of accelerating promotion and providing members with a superannuation allowance justified by their service and age.
- (d) The determination of the proportions in which establishment shall be recruited by Royal Engineer Officers, by Civil Engineers from England, and by Passed Students (chiefly Natives) from the Colleges in India.

3. Your Excellency has come to the conclusion that the Public Works Department, which now consists of 963 officers, may, by the separation of the Military Works Branch from the Public Works Department proper, and by a reduction of the number of officers employed on the Railway Branch, be gradually brought to a strength of about 760. This number of 760 I am prepared on the data supplied by you, and on the assumption that the Military Works Branch will be separated (to which point further reference will be made), to regard as the total maximum strength of the General Branch of the Department in the future, accepting at the same time as necessary an excess for, probably, the next 10 years, till the existing redundancy of officers has become gradually absorbed. This excess of numbers, while it lasts, and to the extent to which it from time to time exists, will render less necessary the employment of temporary officers; but I am glad to perceive that your Government agrees with the views I have already expressed as to the expediency of adopting this last means of supplementing the strength of the Department, if the occasion should arise.

4. You propose to effect the two main objects of the scheme, viz., diminution of the strength to a maximum of 760, and the acceleration of promotion, by (1) a reduction in annual recruitment, and (2) a re-adjustment in the proportion of Executive to Assistant Engineers. The present number of all grades on the establishment, exclusive of the Military Works Branch, is stated in the 3rd paragraph of your Despatch at 827, and you propose to absorb the excess in the course of nine years, by leaving unfilled one-fourth of the annual

vacancies, which are estimated at about 30. The recruitment for this period will, therefore, be limited to 23 annually, of whom six will be appointed from Indian colleges and 17* from England. With this proposal I quite concur.

* 13 Cooper's Hill College.
4 Royal Engineer Officers.

5. The re-adjustment of numbers in the two classes of Executive and Assistant Engineers, as suggested by you, apparently contemplates an immediate promotion of Assistants to Executives sufficient to bring about a ratio of Executives to Assistants of two to one in place of the present proportion of three to four.

6. After a careful study, however, of the statements contained in your letter, coupled with the lists of the Public Works Establishments throughout India, I have been unable to accept the conclusion that the circumstances of the Department justify so serious an alteration in the proportion of numbers in these two classes as that proposed. As, moreover, it is obviously easier to move hereafter in the direction suggested by you than to recede from it, should the measure, as appears to me not improbable, prove inconvenient, I propose to limit, for the present at any rate, the alteration in the numbers of Executive and Assistant Engineers so as to make them equal.

7. In order to produce this proportion within a reasonable time, I am willing to sanction the promotion of the necessary number of Assistants to Executives within the present year and one or two years succeeding, in the manner which appears most advisable to your Government. At the same time the proportion of numbers among the several grades of Executive Engineers which is proposed by you, namely,—1st Grade, 8; 2nd Grade, 9; 3rd Grade, 10; 4th Grade, 12,—should be adopted as early as possible.

8. Before passing from this part of the subject, I would draw your attention to the necessity which will occur, in consequence of the diminished recruitment, for so regulating the promotion of Assistant Engineers to fill vacancies in the class of Executive Engineer as to retain the due proportion in each class as nearly as is compatible with a fair flow of promotion. This may be done by refraining, after the next two years, and until the Department is reduced to its normal strength, from filling up a certain proportion of the vacancies among Executive Engineers, the extent and precise manner of doing so being settled by your Government. In the event of the number of Executive Engineers being in excess of the number of Executive Divisions which it is necessary to maintain, it may be expedient to revert to a plan similar to that which existed from 1861 to 1864 of employing officers of the rank of 4th Grade Executives as Special Assistants without Executive charge on works of exceptional importance.

9. With reference to para. 24 of your letter, it appears to me that the present rule, under which an increment of Rs. 50 per mensem, after four years' service in the grade of Executive Engineer, 1st Grade, and a further increment of equal amount after a service of eight years in the same grade, is calculated to mitigate the hardship of possible slow promotion in individual cases, and I am, therefore, unwilling to assent to the cancelment of the rule in question, unless there are stronger reasons for its abolition than I am aware of at present.

10. With reference to the proposal in para. 6 of your letter to fix the proportion of numbers in the Chief and Superintending Engineer classes at 3 and 7 per cent. respectively, I observe that these proportions are not suggested by you in reference to actual present requirements, but to the possible future needs of the Department. It appears to me unnecessary to lay down any arbitrary proportion of numbers in these two classes. Such appointments should only be made as called for by the requirements of the Service. I would leave, therefore, the numbers in the ranks of Chief and Superintending Engineers to be regulated according to the demands of the Service as determined by your Government, subject, as usual, to the necessary sanction for any increase being obtained from the Secretary of State in Council.

11. The

ROYAL ENGINEERS IN THE EAST INDIES, &c.

11. The next proposal to which I will advert is the scale suggested by you (as marginally quoted*) for compulsory retirement of members of the Department who have not reached certain grades in the Department at certain ages. The necessity for introducing some general rule enforcing the retirement of officers in certain circumstances was alluded to in Lord Hartington's Public Works Despatch, No. 50 of 1881, and your attention was invited to the subject. But your present

- * An officer should retire—
 If not at 30 years of age Assistant Engineer, 1st Grade.
 If not at 35 years of age Executive Engineer, 4th Grade.
 If not at 40 years of age Executive Engineer, 3rd Grade.
 If not at 45 years of age Executive Engineer, 2nd Grade.
 If not at 50 years of age Executive Engineer, 1st Grade.

proposals go beyond what was intended in the matter, and I am of opinion that a stringent application of such a scale of enforced retirement as that which you have suggested might lead to hardship in the case of individuals, with resulting inconvenience to Government, which would outweigh any advantages to be derived from its adoption. I am not disposed, therefore, to move in this matter of compulsory retirement further than has been already indicated by me, namely, to couple with the existing regulation, which requires retirement from the public service at the age of 55, a further rule authorizing your Government to call on an officer of the Public Works Department to retire who has not at the age of 50 attained the rank of Superintending Engineer, the power being reserved to your Government, in the one case as well as in the other, to retain the services of such an officer on special grounds.

12. The next two points to be dealt with are the proposals for the improvement of the pension scale for retired officers of the Public Works Department, and for the institution of a Provident Fund.

13. I will first consider the scale of gratuities and pensions and the periods of furlough which you recommend should count for pension. These proposals are embodied in the 11th to 14th paragraphs of your letter, and are confined to the Civil Engineers in the Department, no interference with the rules which apply to Military Officers being intended. In connection with the scale of pensions proposed by your Excellency is a plan for establishing a provident fund to which considerable contributions would be made by Government, and proportionate benefits conferred on the subscribers. For the reasons which are explained hereafter, I am unable to adopt your recommendations in this matter, but I am prepared to approve of a higher scale of pensions than that proposed by you in the 13th paragraph of your letter, applicable to periods between the 10th and 30th year of service, 20 years of service being necessary to entitle an officer to retire without a medical certificate.

The following is the scale which I should be willing to sanction :—

Number of Years' Service.	Pension per Annum.
	<i>Rs.</i>
10 - - - - -	1,000
11 - - - - -	1,400
12 - - - - -	1,800
13 - - - - -	2,200
14 - - - - -	2,600
15 to 19 - - - - -	3,000
20 to 24 - - - - -	4,000
25 and upwards - - - - -	5,000

} On medical certificate.
 } Without medical certificate.

In some possible and exceptional case the old rules of invalid pension may be more acceptable than those now sanctioned, and it should, therefore, be notified that all now in the Department should, at the time of retirement, be allowed an option between old and new rules.

14. With reference to this scale of pensions, I observe that your Excellency writes, in para. 12 of your letter, as if a pension of Rs. 5,000 per annum, after 25 years' service, was obtainable by right, whereas no pension is now claimable

up to that limit of service, or, indeed, until 30 years' service have been completed, except on medical certificate. By the new rules, however, an officer, after 20 years' service, will be permitted to retire on the pension he may be entitled to by length of service, irrespective of medical certificate, a relaxation of existing rules which constitutes of course a considerable benefit to the body of the Service. In addition to this, I am prepared to offer further advantages in respect to the pensions of the members of the Department who have served in the high and responsible positions of Chief Engineer and Superintending Engineer, these officers being in my estimation entitled to special consideration. I accordingly propose to authorise the grant to any officer who may have served three years as a Chief Engineer, or who may have been graded as such, an extra pension of Rs. 2,000 per annum, irrespective of his total period of service, in addition to the pension which he would receive under the scale now proposed by your Government. An extra pension of Rs. 1,000 per annum may be granted in like manner to any officer who may have served three years as a Superintending Engineer. These extra pensions will, however, be only granted at your discretion as rewards of approved services.

15. The new scale of pensions, with these additions, will in future be applicable to all the European Civil Engineers of the superior engineering branch of the Public Works Department.

16. As regards the time spent on furlough, which is to count as qualifying for pension, I sanction the proposals made in the 14th paragraph of your letter, subject, however, to a reservation which will be found later in para. 19. I would, in addition to your proposals, retain the existing rule which gives "five years of leave during 35 years of service," in order to meet special cases which may occur.

17. The institution of a provident fund for members of the Department was suggested to you by the Despatch marginally noted,*
* No. 50, dated 8th September 1881. in these words: "I would request you to consider whether any, and what, encouragement could be given to a provident fund for the benefit of officers of the Department, by which we could at least encourage frugality, and return to those who adhered to it their savings with interest on retirement, or to their families on death."

18. In pursuance of this suggestion, your Government has submitted a scheme which involves, besides deductions from the pay of officers in the Department, substantial aid from Government to all officers in the grades of Executive and Assistant Engineers. There are, however, in my opinion, many objections to a direct contribution by the State to a provident fund in addition to the grant of pensions, and, moreover, such large deductions from the salaries of junior officers as you have suggested appear to me to be out of proportion to their means. I am unable to assent to the institution of the fund on any other basis than that of encouraging members of the Department to save a certain proportion of their salaries by allowing interest on their contributions. Subscription to such a fund should be open to all Civil Engineers now in the Department, or hereafter entering it. The contribution might properly be fixed at 5 per cent. on salaries, with voluntary contributions by members of a further 5 per cent., compound interest at 4 per cent. on such payments being annually credited by Government to each officer. The sum which will thus gradually accumulate to the credit of an officer will be his absolute property, to be handed over to him unconditionally on quitting the Service, or, in the event of his death before retirement, to his legal representatives. When it is ascertained to what extent officers now in the Department look on the institution of such a fund as an advantage, and avail themselves of it, it will be more easy than at present to judge whether it should be made obligatory on all Civil Engineers hereafter entering the Service to subscribe thereto. Meanwhile, I am not prepared to make subscription obligatory.

19. I have to add, with regard to the length of qualifying service for pensions (referred to in para. 14 of your letter), that, while I accept your proposals, it must be understood that, in accordance with the general principle established

on this point, the permission to reckon certain portions of furlough as service will apply only to those members of the Department to whom the more favourable leave rules are applicable.

20. Although not alluded to in your letter, the question of the pay of the Royal Engineer members of the Department is one which it is desirable now to consider. The opinion has already been expressed by my predecessors that the position in the Department of the Military and the Civil Engineers should, as far as possible, be assimilated, and the time has, in my opinion, arrived when the distinctions which now exist in their emoluments should be removed. I desire, therefore, that in future the salary of the Royal Engineer Officers admitted to the Department shall not be supplemented by military pay proper, but shall consist only of the salary of the grade or office in which they may be serving. I do not propose that any deductions shall be made from the present allowances of those who are in the Department, but on their promotion the new rule should be applied to them, provided they do not by promotion suffer any diminution in their total present emoluments.

21. Another point remaining for consideration is that of the relative proportions of Royal and Civil Engineers in the Department. The whole number of Royal Engineers is now 228, but should the separation of the Military Works Branch be determined on, a transfer of 127 will take place, leaving 101 on the general Public Works staff. You propose to maintain the number at 100, and to fix the proportion of Royal Engineers at 15 per cent. of the whole. On this question I reserve my opinion until I have come to a decision on the proposals for the separation of the Military Works from the Public Works Department of your Government, made in your Military Letter, No. 345, of the 24th September 1881.

22. You inform me in para. 25 of your Despatch, that you are "prepared to admit Natives into the Engineer Establishment on two-thirds of the salaries drawn by those appointed from England, and to afford every encouragement to their entering." This I entirely approve, and I wish you to consider how far it may be possible to adopt a scale of pensions for natives of India, corresponding to those now sanctioned by this Despatch, at two-thirds of the rates for Europeans.

23. To ensure any larger introduction of the Native element into the Department the provision of efficient means of instruction and practical training in different parts of India will be essential; and as this is a matter which has formed the subject of former correspondence, I need say no more on this occasion.

24. With respect to the remark made in para. 26 of your letter, I have to refer you to my predecessor's Despatch, No. 2, Public Works Department, dated the 5th January 1882, regarding the discretion left to your Government to make arrangements with Civil Engineers for short terms of service on particular works.

25. The request contained in the last paragraph of your letter for sanction to the application of the principles of the foregoing scheme to the superior officers of the Accounts Branch of the Department has been followed by your Public Works Letter, No. 14, dated 25th April last, which will be replied to separately. So far, however, as any of the officers of this branch have been recruited from the Engineer Branch, it will doubtless be proper to extend to them the advantages they would have received had their transfer not taken place.

26. Apart from the questions of promotion, pay, and pensions, there are other points connected with the Civil Engineering section of the Department which I consider it desirable to refer to. I have been made aware that there is among the Civil Engineers an impression that they do not receive their due share of the appointments in the Secretariats, or in the department of Railway control. I do not know how far there is real ground for complaint on this score. Nor do I desire to interfere with the discretion which is exercised by the authorities in India in the selection of individuals for certain offices. I will only express my confidence that the choice of fit persons will be made with perfect impartiality, and that no grounds will be allowed to exist for such

apprehensions as those which have been expressed. I am not aware of any reason why competent Civil Engineers of the Department should not hold the office of Consulting Engineer for Railways, or have equal opportunities to qualify for that position with officers of the Royal Engineers.

27. Another point on which I find that strong feelings are entertained by the Civil Engineering Members of the Department is in respect to their designation as Uncovenanted Servants. Under the special rules regarding their pay, pensions, and furloughs which have now been provided for them, they will no longer come under the general Uncovenanted Service rules, and a special chapter will have to be introduced in the Pension Code to meet their case. The term is, therefore, no longer applicable to them, and should be dropped in India as it will be here in all official notifications.

I have, &c.
(signed) *Kimberley.*

No. 15.—Public Works.

Government of India.—Public Works Department.—General.

To the Right Honourable the Earl of *Kimberley*, Her Majesty's Secretary of State for India.

My Lord,

Simla, 21 April 1884.

WE have had the honour to receive your Lordship's Despatch, No. 18, dated 22nd-March 1883, regarding the reorganisation of the Engineering Branch of the Public Works Department.

2. This matter has been from time to time under consideration for several years past; but in 1881* your Lordship, disapproving of certain proposals of a temporary nature which we had made, expressed a desire "to lay down the general lines at least of a scale of establishment which may be capable of permanent adoption," and pointed out that "the object is to form a compact and well-arranged staff of highly qualified officers, composed of a due proportion of Royal and Civil Engineers, both European and Native, properly remunerated in reference to the duties they perform, and with fair hopes of advancement and of ultimate retirement on appropriate pensions; and when additional strength is required for carrying out an extended system of works, which it would be beyond the power of the Department to perform, to obtain it by the temporary engagement of persons specially qualified for the work required to be done."

* No. 50 P.W., dated 8th September 1881.

3. Taking advantage of this permission, and of certain suggestions of your Lordship, we submitted a complete scheme, the principal features of which were as follows:

No. 50 P.W., dated 16th December 1881.

No. 8 P.W., dated 20th February 1882.

1st. Reduction of the sanctioned strength of the Engineer Establishment (excluding the Military Works Branch) from 827 to 761. Expansion of work to be provided for by Engineers entertained temporarily.

2nd. Reduction of recruiting by one-fourth of the normal number until supernumeraries are absorbed.

3rd. Redistribution of grades of officers so that Chief and Superintending Engineers should be one-tenth of the whole; that Executives and Assistants should bear to each other the proportion of 2 : 1; and that Executives should be graded in proportions as 6, 7, 8 and 9, the effect of this being that an officer would reach the 4th grade of Executives in 10 years, and the 1st grade in 22 years.

4th. Compulsory retirement of officers who are a full grade behind the average rate of promotion.

5th. Improved pensions, on a graduated scale, for every year of service from 10 years upwards, and increase in periods of furlough allowed as qualifying service.

6th. Establishment

6th. Establishment of Provident Fund on the basis of compulsory deductions from salary, and duplication by the State of amounts deducted from the classes below Superintending Engineers, Royal Engineers and Staff Corps Officers being excluded, but allowed to make voluntary contributions.

7th. Natives entering the Engineer Establishment to receive only two-thirds of the salary of Engineers appointed in England.

4. To this communication your Lordship's Despatch now under consideration is a reply, which may be thus summarised :—

1st. The 1st, 2nd and 7th proposals regarding sanctioned strength, recruitment and pay of Native Engineers are approved.

2nd. As regards redistribution, the proposed proportions of Executive Engineers *inter se* are approved, but an equal number of Executives and Assistants, instead of the proposed proportion of 2 : 1, is considered sufficient; the gradation of Executives is fixed as 8, 9, 10 and 12; and a fixed number of Chief and Superintending Engineers is deemed inconvenient and unsuitable to the fluctuating needs of the Department.

3rd. Compulsory retirement is disapproved, except in the case of officers who have not reached at the age of 50 the rank of Superintending Engineer, and whose services the Government does not wish to retain on special grounds.

4th. Pensions on the principle of right to retire on reduced pension at any period of service exceeding 10 years are disapproved, but a new scale of pensions, contingent on medical certificate, up to 20 years only, and providing discretionary increases in the case of officers who have served or been graded for not less than three years, is proposed. The extension of furlough as qualifying service is limited to officers enjoying the more favourable leave rules.

5th. Provident Fund.—The rate and compulsoriness of the deductions proposed, as also the direct contributions by Government, are objected to; but a voluntary fund, with rates of 5 and 10 per cent. deduction, upon which the State should give annual compound interest at 4 per cent., is suggested.

Besides the above the Despatch refers to various other matters, which will be presently noticed in due course. The most important of these is the discontinuance of Military pay proper to all Royal Engineers in the Department.

5. In the first paragraph of the Despatch your Lordship, while authorising us to carry into effect any of the conclusions contained in it with which we concurred, added that if, after full consideration of its contents and the whole circumstances of this difficult subject, we desired any modifications, the suggestions we might make should receive full consideration.

6. Under the discretion thus allowed, the effect of the new proposals for re-organisation was actuarially examined in our Public Works Secretariat; and in order to meet the difficulties arising out of the existing abnormal irregularities of age and service, a scheme of promotion by annual increments was suggested by the Secretary in that Department, Colonel W. S. Trevor. That officer likewise made an elaborate comparison of the emoluments of Royal and Civil Engineers, and the proposal for discontinuance of Military pay proper to the former was also considered in our Military Department. These papers, together with a further note by Colonel Trevor, dated the 30th November last, on the pay of Royal Engineers, are forwarded herewith as enclosures Nos. 1 and 2.

7. The result of the preliminary investigations above mentioned was to disclose very serious difficulties both in the nature of the case and in the application of some of the measures desired by your Lordship. The matter appeared to be such as could best be examined, in accordance with the precedent

Vide our Despatch No. 97 P.W., dated 2nd November 1880, and enclosures.

of 1880, by a Departmental Committee; but, considering the intricacy of the details and variety of distinct interests involved, we decided on constituting it on a somewhat wider basis than the Committees formed

	European and Eurasian.	Native.	Total Numbers	Representatives allowed.
Stanley - - Engineers	111	—	142	2
Other Covenanted - do.	31			
Cooper's Hill College do.	307	33	150	1
Roorkee College - - do.	117			
Others (from other Indian Colleges, Guaranteed Railways, &c.) - - - - -	133	41	174	2
Total Civil Engineers -	699	74	773	8
Royal Engineers - - - -	207	—	231	2
Staff Corps Officers - - -	24			
	930	74	1,004	10

on that occasion. The Engineering Department as it stood in 1883 comprised the various classes, in the proportions detailed in the margin, which admitted of the constitution of a fairly representative Committee of ten members (one being a native), with Mr. G. L. Molesworth, C.E., C.I.E., as President. A copy of the Resolution constituting and instructing the Committee is appended (*vide* Enclosure No. 3). Such a Committee,

we considered, would not only bring varied experience to bear on the points under consideration, but also possess the advantage, in the present state of feeling in the Department, of allowing all classes to be fairly heard.

8. The Committee met on the 3rd September last, and submitted by the end of the month a report, forwarded herewith as Enclosure No. 4. This report and the whole question have now been thoroughly examined, and we proceed to convey, for your Lordship's consideration, our conclusions on the several matters in issue.

Strength of the Department.

9. The Committee (Resolution I.) consider it "inadvisable to fix any definite and invariable strength for the establishment." It may readily be admitted that no strength now fixed is likely to do "duty for all time;" but there is ample proof in the history of not only our Engineering staff, but the Civil and Military Services, that the absence of an ordinarily recognized normal strength and the system of spasmodic increases and reductions, according to the policy of the hour, have been fruitful in past and present difficulties. This fact has long since been fully recognised in the case of the Civil Service, which is now constituted* on the basis of a fixed strength for all India, subject to revision only after a term of years, and of a corresponding fixed recruitment, all temporary or permanent increases found necessary in the interval being supplied by redistribution of charges or employment of extra native agency.

10. To the Engineering Service we think that the same policy should be applied, fluctuating needs being met by Engineers temporarily engaged, as already approved by your Lordship on several occasions. We cannot therefore concur in the Committee's Resolution II., which seems, indeed, to be incompatible with their Resolution I. Against temporary Engineers it is urged, (1) that they are scarce in India and will always demand high salaries; (2) that there are objections to importing temporary hands, who will be inefficient owing to their ignorance of the native language and customs; (3) that this semi-temporary service leads to hopes and perhaps claims for admission into the permanent staff. Objection (3) is discounted by our proposals for a fixed strength and mode of recruitment which, if accepted, will make it almost impossible to increase the permanent strength in the manner indicated. Objection (1) has to be proved, and is now on its trial. It may be admitted that there is some force in the objection (2) as to importing temporary men from England. Judging from the present experience of one year, however, it seems that we have been very fairly successful in obtaining competent temporary Engineers in India; and we have had three applications for these appointments from men out of India—one from England, one from Australia, and

ROYAL ENGINEERS IN THE EAST INDIES, &c.

and another from Ceylon—possessing foreign experience and willing to come to

Rate of pay.	Madras.	Bombay.	Bengal.	N. W. P. and Oudh.	Punjab.	Assam.	State Railways.	Total.
Rs. 950	-	-	-	-	-	-	2	2
800	1	-	-	-	-	-	1	2
750	1	-	-	-	-	-	-	1
650	1	-	-	-	-	-	1	2
600	-	-	-	-	-	-	1	1
550	-	-	1	-	-	-	3	4
500	-	-	-	-	-	-	-	-
450	-	-	-	-	1	-	-	2
400	-	1	-	1	-	-	-	2
350	4	-	-	-	-	-	2	6
300	1	-	-	-	-	1	2	4
Total	8	1	1	1	1	1	14	27

India at their own expense. As men in the country get experience of this temporary employment, it seems likely that there will be a more constant supply of candidates, especially from amongst students who pass out of the Indian Colleges as Engineers, but fail to obtain the guaranteed appointments on the permanent establishment. The statement in the margin shows the number of temporary Engineers now employed on various public works. Several of them have entered upon a second year's

engagement.

We may here remark, however, that we do not expect that the employment of temporary Engineers will be largely resorted to, for some years at any rate, as there will be supernumeraries in the Department itself available for extra work.

11. The numbers to be adopted as normal strength must now be considered.

	Royal Engineers.	Civil Engineers.	Staff Corps Officers.	Total.
On deputation out of the Department	11	29	1	41
In Military Works Branch	68	-	6	74
In Civil Works Branch	134	747	17	898
	213	776	24	1,013

The number in the Department on 1st January 1884, including the lately arrived recruits, may be taken at 1,013, comprising the classes shown in the margin. The present nominal sanctioned strength is 954, or 880, exclusive of

the existing Military Works Branch, as explained in our Despatch No. 50 P. W. of 16th December 1881, and a further gradual reduction of 66 officers within the next few years was contemplated in that communication, thus establishing a normal strength of 888, or 761, exclusive of that Branch after certain transfers to it from the Public Works Department have been carried out.

12. On a complete re-examination of the question, however, we find reasons for doubt whether such a reduction will be practicable.

In the first place, it would seem that, in the calculations resulting in the figure of 954, sufficient regard was not had to the large number of officers on deputation out of the Department, that is, lent to Native and Foreign States, Railway Companies, &c. The number of such officers is now 41, and is likely to increase rather than to diminish under the policy inculcated in your Lordship's Despatches specified marginally. Moreover, we have lately supplied two

No. 128R, dated 28th September 1882, and No. 27R., dated 15th February 1883.

Irrigation Engineers to the Egyptian Government, and are just about to send two more.

A full margin for these calls must obviously be allowed in the sanctioned strength and annual recruitment, though no extra expense is incurred thereby.

Next, the calculations comprised an allowance of only 10 per cent. for absentees, but this is quite insufficient, and affords a substantial grievance, which is represented by the Committee in Resolution V. The allowance which

* Vide paragraph 24 of Note accompanying Despatch No. 71 (Home), dated 19th December 1881.

has been finally ascertained* to be necessary in the case of the Civil Service is 20 per cent. of the whole service, and we do not think that

less than 15 per cent. will suffice for the somewhat differently circumstanced Engineer Establishment.

Thirdly, an important and growing drain on the staff available for new works arises from year to year out of the withdrawal of officers to the "Revenue Establishment" for the maintenance of railways and canals. Every under-

taking on its completion carries off a certain proportion of officers, and though we do our best to keep down the numbers by engaging outsiders on the "non-pensionary scale," such withdrawals can never be avoided altogether. The Committee's Resolutions III. and IV. relate to this subject. There would not be any financial advantage, while there would be some administrative inconvenience, in the separation of such officers which the Committee recommend; but we think that the fact that such officers practically pay for themselves should not be overlooked when considering the strength and cost of the whole Engineering Establishment. Their number at present is no less than 185.

Fourthly, an increased rate of railway extension in future, which will add to both the direct operations of the Department and the calls for loan of its officers to private Companies, appears probable, and is now under the consideration of a Select Committee of the House of Commons. Even if the contract system be largely employed on State Railways, the supervision of contractors will employ a considerable staff.

Finally, there seems some reason to doubt whether the transfer of Military Works in Madras and Bombay can be effected without either some increase of staff or a reduction of the Royal Engineers to be given over below the number of 53, which has been estimated for in the proposal which fixes the ultimate strength of the Military Works Branch at 127.

In corroboration of the general tendency of the above remarks, we would cite the opinion of the Committee on Resolution I. (page 20), and the constant applications for more men which we receive from Local Governments, together with the fact that we have at present 27 temporary Engineers in our employ.

13. The preceding considerations all point towards the insufficiency of a fixed strength less by 125 officers than the number now permanently in the Department, and by 152 than the total employed, including temporary Engineers. No practical difficulty can, indeed, result at present from fixing an insufficient standard,

because the elimination of supernumeraries will be a process of several years. But, on the other hand, it seems rash to act on any anticipation that the calls on the Department for officers, for one purpose or another, will be less some years hence than now.

The only condition under which a lower standard might be adopted with confidence is, that a new class of officers, so far superior to Upper Subordinates as to be able to discharge satisfactorily the ordinary duties of Assistant Engineers, and recruited separately in India, shall be constituted. A proposal of this nature has already been negatived by your Lordship (Despatch No. 50 P. W. of 8th September 1881), and we are not disposed to revive it now, though some members of the Committee are in favour of doing so.

14. On the grounds mentioned, therefore, we are of opinion that it would be justifiable now to fix the total sanctioned strength at 1,000 instead of 954, or, in other words, at 873, excluding the *whole* Military Works Branch, as yet to be completely formed, but including some 40 or 50 officers on deputation who will be no burden on the finances of India, and also the staff on open Railways and Irrigation works, who practically pay their own way.

With a normal strength of 1,000, the number of supernumeraries to be worked off would not be so great as it would be with 954 or 888. In other words, the new normal number, though larger than the old, will be worked down to, with the proportionate recruitment proposed, in the same time as the latter. But in either case, some years of increase must necessarily precede any material reduction, as will be understood better by reference to Table K. in Enclosure 6. In the interval the supernumeraries will take the place of temporary men, as pointed out in paragraph 3 of your Lordship's Despatch under reply, and the chief value of the fixed normal number will be for the regulation of recruitments.

15. While thus stating our opinion as to what, in the *present* aspect of affairs, and bearing in mind that no typical standard can be attained except by

by recruiting up to it for many years previously, ought to be the fixed normal strength of the Engineer Establishment, we recognise the possibility that the present aspect may be changed by the anticipated Report of the Select Committee of the House of Commons on Railway Extension or by the devising of a scheme for an intermediary class of Native Engineers more satisfactory than those hitherto proposed. The cost of the higher normal strength, moreover, though necessarily very small for some years, would be considerable in the end. In this view, we should not object, if your Lordship thought such a course preferable, to defer for two or three years the consideration of the increase. No practical difficulty can result from this at present, as we have observed in para. 13.

16. We may here mention that, whenever a change in the fixed sanctioned number may take place, it will not suffice simply to increase or decrease the number of recruits. The entire establishment in its several grades should be revised, so that the rate of promotion may not be affected, but flow on regularly as before.

With regard to the Committee's Resolution VI., we agree that reductions should be made in Royal and Civil Engineers proportionately; but the Committee forget that Royal Engineers cannot be dismissed, or removed from the Indian list, by the Government of India. The most that can be done in their case is to extend the leave rules, as in 1879-80.

Rate and Apportioning of Recruitment.

17. For a fixed strength of 1,000 officers, the fixed annual recruitment would be 37, according to General Hannington's scale, which is certainly a moderate one. This figure corresponds, after allowing for the alteration in normal strength, with the 34 which has been recognised in previous Despatches

* See note to Table K. as the recruitment required for a normal strength of 888.*

18. In our Despatch No. 97 P. W., dated 2nd November 1880, we recommended that the recruitment should be diminished by one-fourth, because we had in view the eventual supply of one-fourth of the whole sanctioned strength of superior officers from a new class of men, to be called Deputy Engineers or Clerks of Works, and to be recruited independently. The constitution of such a class of men did not meet with your Lordship's approval; but, owing apparently to some misconception, or to a change of views not fully explained, the reduction in number of recruits was nevertheless provided for, notwithstanding that the original occasion for it had ceased, and that para. 21 of your Lordship's Despatch No. 50 P. W. of 8th September 1881 recognised that the recruitment must necessarily be regulated by the number fixed upon as the permanent aggregate strength of the Department.

19. The reduced recruitment thus established was accepted in our Despatch No. 50 P. W. of 16th December 1881, and in your Lordship's reply thereto, No. 18 of 22nd March 1883, as a mode of reducing the excess of officers in the Department over the new sanctioned strength. On the further examination of the whole question which has taken place since the receipt of the latter, however, we perceived that such a mode of reduction is at variance with the principle enunciated in para. 21 above quoted, a principle which is indisputably sound, and has been formally accepted by the Government of India in other cases. In order to avoid delay, we took the opportunity of referring to the question which was afforded by our report (No. 36 P. W. of 28th July 1883) on the memorials of various Associations of domiciled Europeans and Eurasians against their exclusion from the Public Works Department. We then remarked as follows:—

“ We recommend that this decision be reconsidered, and that we should be permitted to recruit at once up to the full normal number of 25 required to maintain the Civil establishment of 660 members. Bearing in mind the serious inconvenience and heavy expense which has been caused in other establishments in this country, notably the

See Home Department Despatch, No. 71 of 19th December 1881, and Military Department Despatch, No. 80 of 7th May 1883.

whole Covenanted Civil Service and the establishment of the Madras Army, by short or irregular recruiting, we believe that it would have been advisable to adopt this arrangement in any case; but, under present circumstances, the change would be especially advantageous and opportune, as it would afford a way of meeting the difficulty which has arisen in connection with the Indian appointments to

the Department. We do not overlook the fact that, by thus recruiting, from the first, in full proportion to the total reduced normal strength, the period necessary to come down to that strength will be prolonged, and that some additional annually cumulative expense will for a time be incurred. But we consider that any such outlay, which would be inconsiderable in at least the earlier years, would be very preferable to bringing upon the Engineer Establishment the well-known evils to which we have referred, and would probably be no more than equal to the cost which relief measures in mitigation of those evils would inevitably involve."

20. We fear that we did not express with sufficient clearness the state of the case, for your Lordship's reply (para. 27 of Despatch No. 74, dated 20th December 1883) runs thus:—

"27. I regret that I am unable to assent to the proposals made in the 6th and 7th paragraphs of your letter under reply, to increase the number of appointments made yearly to the Public Works Department in excess of the number which it has been shown will suffice to maintain the establishment at the strength which you consider sufficient. It is only by a strict adherence to the rule that no over-recruitment shall be in any case permitted that trouble can be avoided in the future and stagnation in the service be prevented. The experience in all branches of the public establishments of the necessary results of neglect of this rule is too recent and too serious to allow of any intentional departure from it."

We beg to explain that what we desired was, not to make any appointments in excess of the number necessary to maintain the establishments at the reduced normal strength, but to be allowed to recruit up to that number instead of 25 per cent. below it. Under-recruitment obviously produces, in the end, just the same evil effects as over-recruitment. Undue promotion prevails for a time, accompanied by a deficiency of hands. The latter soon necessitates over-recruitment, to fill up the gap caused by under-recruitment, and the concomitant evils of both errors succeed each other in a vicious circle. As our views regarding these evils are identical with those of your Lordship, we trust that, under this explanation, the full regular recruitment, namely, up to the full number of 34 on the present revised strength of 888 (or the further number of 37 on a strength of 1,000), may be restored at once.

Regarding the apportionment of this recruitment between the Indian and

—	On 888.	On 1,000.
Royal Engineers - - -	9	9
Cooper's Hill College - - -	14	15
Indian Colleges - - -	11	13
	34	37

English Colleges, which is shown in the margin, we shall fully address your Lordship separately, in reply to Despatch No. 74 of 20th December last. We are not aware of the inferiority of the Indian Colleges in respect of practical training, postulated in the Committee's Resolution XXVII., and we see no sufficient reason for

a reversion in part to the system of recruitment by open competition, as recommended in the Committee's Resolution XXVIII.

Re-adjustment of Grades.

21. Your Lordship's proposals on this subject, already summarised above in paragraph 4, Clause 2nd, have been very carefully considered from an actuarial point of view (*vide* Notes II. and III. in Enclosure No. 1), with the result, in the first instance, of showing—

1st.—That the equalisation of numbers in the grades of Executive and Assistant Engineer would indeed give a fair start, but would result in the gradual retardation of the rate of promotion to the Executive class until, in about the year 1900, Assistants would have to serve 16 years before attaining the latter.

2nd.—That a rate of promotion corresponding to a service of about ten years in the Assistant class could be established by a sliding scale, varying year by year for the two classes, but that it would eventually bring about a proportion between them of 2 : 1. This proportion we, on further consideration, agree with your Lordship (paragraph 4) and Mr. Molesworth (Opening Address) in condemning as unsuitable to the practical conditions of work.

3rd. That

3rd.—That the scale of 8, 9, 10, and 12 for the Executive grades would, concurrently with the above, gradually establish a block of promotion in the 4th grade of Executives.

4th.—That it would be possible, by an elaborate series of quinquennial adjustments of scale, to push out gradually through the several grades the inequalities of age and numbers which now block the Department, while affording a fair flow of promotion, and working up to a typical strength and recruitment.

There thus appeared *prima facie* grounds for supposing that these proposals, if adhered to permanently, would not effect the objects desired. It seemed, however, from your Lordship's 6th paragraph, that the necessity of some modifications at an early date was foreseen, though their nature was not indicated; possibly they might be towards the establishment of a proportion between Executives and Assistants of 3 : 2 as in General Strachey's Scheme of 17th May 1881, from which the scale of 8, 9, 10, and 12 is derived. In view of these difficulties, and also of the fact that *none* of the schemes hitherto discussed had gone beyond the establishment of a typical scale, into the arrangements necessary for getting the present heterogeneous *personnel* of the service through the transition stage, we considered further detailed examination of the question by experts to be indispensable. In illustration of this difficulty, we append a diagram (Enclosure 5) showing the remarkable irregularities, due to unequal recruiting in the past, in age and in numbers, among the men of each year of standing in the service, as also the very uneven distribution, in respect of standing, of Royal and Civil Engineers, and officers of the Staff Corps.

At this stage our Secretary in the Public Works Department, Colonel W. S. Trevor, being of opinion that the impossibility of securing a more rapid flow of promotion by any form of the gradation system which had hitherto been suggested was thus established, drew up a scheme for substituting a system of incremental salaries dependent on length of approved service (*vide* Notes V., VI., and VII. in Enclosure No. 1). This scheme contemplated, in the first instance, the placing of every individual officer in the Department in the position to which he was entitled under a typical standard of qualification, based on departmental standing, and then raising his pay by annual increments, subject to duplication or suspension in the case of meritorious service or the reverse. By this, it was claimed, the present difficulties of transfer from one list or Province to another, without trenching on personal rights and prospects, would be overcome, while all would be assured a fair flow of promotion.

22. The relative merits of a graded and an incremental system of promotion were very thoroughly discussed by the Committee, and Resolution VII. in favour of the former was only passed by a majority of six to five. We believe that the subject has attracted much attention throughout the Department, both at the time and since, and that the balance of opinion generally endorses this verdict. The majority of the Committee, while preferring the graded system, consider that it might be better regulated; and upon Resolutions VIII., IX., and X., recommending (1) the adaptation of the various grades to more appropriate periods of service, (2) the conversion of 4th grade Executives into Assistants, and (3) the revision of salaries to suit these new conditions, the Committee are unanimous.

23. As we consider these recommendations to be substantially reasonable, a scheme to meet them has been devised by Colonel Trevor, which we desire now to submit for sanction. This is a question of such intricacy that it has been found necessary to devote to its consideration a separate note and series of tables, in which the scheme has been fully explained (*vide* Enclosure No. 6). The scheme is drawn out for a normal strength of 888, but it is applicable, of course, to any strength which may be determined on, provided that recruitment up to the full ultimate strength is begun at once and regularly continued.

24. According to this scheme, it is also proposed to increase in the three higher

higher grades, by Rs. 50 each, the pay of Civil Engineers and Staff Corps officers who are on the consolidated rate of pay, that is to say—

the pay of the 1st grade from Rs. 950 to Rs. 1,000,	
2nd „ „ „ 800 „ 850,	
3rd „ „ „ 650 „ 700,	

and to have three Executive and three Assistant grades corresponding to the four Executive and two Upper Assistant grades as now constituted.

The present 3rd Assistant and Apprentice grade will remain, as now, outside the above graded establishment, and will be filled, as now, by the Indian recruits, who will also, as at present, be promoted into the graded establishment after passing the prescribed periods in these grades, and after passing the necessary examination for promotion to the present 2nd grade (new 3rd grade) of Assistants.

25. The rates of promotion which it is desired in this scheme to establish commencing from the year 1884, are as follows :—

To the 2nd grade of Assistant after	3 years' service.	
„ 1st „ of „ „	6½	„
„ 3rd „ of Executive „	11	„
„ 2nd „ of „ „	14½	„
„ 1st „ of „ „	19	„

The manner in which this flow is to be maintained, and the restriction necessary at starting, are fully explained in the note and the tables appended thereto. We trust that these grades will be ordinarily attained in the periods contemplated; but in order to meet occasional cases of hardship, increments of Rs. 50 per mensem, which your Lordship (paragraph 9) desires to retain, might be allowed in the event of the posts of Executive 3rd grade and 1st grade not being reached in 12 and 22 years, respectively. This would also meet, to a certain extent, the suggestion in the Committee's Resolution XI.

These rates are somewhat more rapid than those proposed in paragraph 7 of our Despatch No. 50 P. W. of 16th December 1881; but not more so, we consider, than may be reasonably allowed, by comparison with other Departments, to a service technically trained and performing responsible and arduous duties under considerable exposure. They are substantially the same as the rates contemplated by your Lordship and General Strachey (No. 50 P. W. of the 8th September 1881), and as those advocated by the Committee.

We may here point out that your Lordship, in paragraph 7 of Despatch of 22nd March 1883, apparently

	Secretary of State.	Total.	Government of India.	Cumulative Total.	Government of India better by
No. of Executives and Assistants only* -	883	—	883	—	—
No. of Executives -	442	—	588	—	—
1st grade -	90	90	118	118	28
2nd „ -	102	192	137	255	63
3rd „ -	113	305	157	412	107
4th „ -	137	442	176	588	146

* Taking present total sanction of 954.

your Lordship desires, instead of to 588 out of the same total, as we proposed, the general effect is totally changed, and the rate of promotion becomes very seriously affected for the worse.

26. The consideration of Colonel Trevor's scheme does not clash with the equalisation of numbers of Executives and Assistants, which we concur with your Lordship in considering desirable. We have therefore taken advantage of the sanction in your Lordship's 7th and 8th paragraphs to make a certain number of promotions at once, while reserving others for future years. A copy of our Resolution is forwarded herewith as Enclosure No. 8.

27. We concur in your Lordship's decision (paragraph 10) that the numbers in the Chief and Superintending Engineer classes must depend on the exigencies of work, and not on any arbitrary proportion. An increase in these classes will

will involve a corresponding decrease in the class of 1st grade Executives on the Civil or Military list, as the case may be.

28. We have said in paragraph 24, that the proposed increase of pay in the Executive grades is intended to apply only to Civil Engineers and Staff Corps men. The question of the relative emoluments of these classes and of Royal Engineers has been very exhaustively discussed in Note VI. of Enclosure No. 1 and in Enclosure No. 2. The Committee have recorded no Resolution on it, as we did not consider it necessary to refer it formally to them, but some observations will be found among the appendices to their report. The circumstances of the two services of Royal and Civil Engineers are so essentially dissimilar that it is most difficult, if not impossible, to make any strictly accurate comparison of their respective emoluments. At the same time, what has been written appears to us to establish the broad fact that, if all advantages, including such as it is now proposed to confer on Civil Engineers, be taken into account, the withdrawal of Military pay proper from the Royal Engineers will place the latter in a comparatively disadvantageous position. And we must add that the withdrawal of their Military pay proper from the Royal Engineers would involve a very serious alteration of the conditions under which the greater number of them entered the Department, and which, under the circumstances, we submit it would not be expedient, if indeed it would be just, to insist upon.

Under these circumstances, we beg strongly to recommend that your Lordship's decision (paragraph 20 of Despatch under reply) to discontinue the Military pay proper of Royal Engineers in the Department should be reconsidered.

29. We need not enlarge upon the ill-feeling which has unfortunately so long prevailed among the Civil members of the Department, originating in the inequalities which they believe to exist between their position and that of Royal Engineers in respect of promotion, pay, and pensions. Much of this feeling has arisen out of misapprehensions of fact which we trust the insight afforded by representation on the late Committee will have tended to remove.

30. For this state of feeling we are disposed to believe that the best remedy lies in diminishing the points of contact between the two classes, rather than in attempting an assimilation and fusion which it may be impossible, from the nature of the Military service, ever satisfactorily to carry out.

Such a diminution might perhaps be effected by the transfer of all Royal Engineers now in the Civil Works Branch from the list in which they are now mixed up with Civil Engineers to a new list, to be formed of them and the Royal Engineers in the present Military Works list combined. The same grades and proportions as have been, in preceding paragraphs, proposed for the Department generally might be fixed as the normal standard for this new Royal Engineers' list, and at once applied fully in the lower grades, and progressively in the higher ones, as the present preponderance of senior Royal Engineers in the Chief and Superintending Engineer classes is worked off by casualties.

31. The advantages of such a measure would appear to be these:—

1st. The ordinary promotion of Royal and Civil Engineers would be perfectly distinct in future, depending in each case on the casualties of one class alone, and no individual of one class could ever be said to supersede another.

2nd. The serious difficulties and discontent arising from Royal Engineers reverting to the British establishment after a term of Indian service, and being replaced by strangers from England who must be inserted in the lists according to their rank (see Resolution XXII.), would be avoided.

3rd. The complaints and occasional injustice caused by transfers from, and exchanges with, the Military Works List, and from the absorption of supernumeraries (Resolutions XXIII. and XXVI.) would be put an end to.

4th. The Royal Engineers, being thus placed on a separate list, might be dealt with separately as Military officers, their emoluments, gradation, rate of promotion, total sanctioned strength, pensions, &c., being varied from time to time as found best, without in any way affecting the Civil Public Works Department as such.

In fact, the Royal Engineers Branch of the Public Works Department would be in greater part an organization for Military Works, but lending to the Civil Works a supply of officers in such numbers and of such rank as might from time to time be wanted. This would, substantially, meet the desire expressed in the Committee's Resolutions XXII. and XXIV.

32. We are, however, aware that there must be considerable difficulties in practically effecting such a separation without injury to the prospects of promotion of either party. We have not yet been able to frame, to our own satisfaction, a scheme for effecting the object in view, but if we should hereafter succeed in doing so, we shall submit it for your Lordship's consideration.

33. The cost of the proposed re-adjustment of grades remains to be stated. The scale from year to year, and the cost for a service *not comprising natives on a reduced rate of pay* have, in the first instance, for convenience sake, been worked out from Colonel Trevor's note and tables, and are shown in Tables R. and S. appended as Enclosure No. 7, to which we would invite special attention. Table S. is intended to show the annual charges entailed by accepting the scheme drawn out in Table R., after making the necessary allowance for absentees, and also for officiating or temporary allowances. It will be seen that the immediate effect of the proposals will be to increase the charges by Rs. 5,53,000 per annum. The cost will, in theory at least, go on increasing year by year, until in the year 1892 it will be Rs. 14,58,000 greater than it is at present. Eventually, in A.D. 1914, with the ultimate establishment of 800 Executives and Assistants, the cost will be only Rs. 1,28,080 greater than at present. Supposing an ultimate establishment of 1,000 to be adopted, the extra annual charge on account of the increase would be only Rs. 16,800 in 1884-85, and it would not reach a lakh of rupees till 1890, but it would of course grow later on, as shown in table S 1.

The above figures, however, take no account, for the reason just given, of the intended conversion of one-third of the establishment into Statutory Natives drawing only two-thirds pay. This change can of course only come gradually into full effect, as the recruitment introduces Natives from year to year, but it will bring about a large saving on the above figures, both intermediately and ultimately. The calculation of reduction is given in Table S 2. In this place it may suffice to say that in 1914 when, *at the latest*, the typical condition will be attained, there will be a well-graduated service of 800 Executives and Assistants instead of 940, costing about 4½ lakhs of rupees less than at

* See foot-note to Table S 2. present.*

But it must also be remembered that (1) there will be a large set-off to this charge in salaries and pensionary contribution of the body of officers on deputation, which are paid by their employers, and are no charge on Indian revenues; (2) a further large portion of the charge is, as explained in the third clause of paragraph 12, for Revenue Establishment of open railways and canals, and therefore a directly productive outlay; (3) if the rule of retirement at 50 years be enforced with even moderate strictness, the increase of cost will not only be much less, but the subsequent reduction will be much more rapid; (4) the additional cost of the full recruitment which we have recommended in paragraph 20 will be inconsiderable for several years to come, and will, as it increases, be met to a very appreciable extent by increase also in receipts under the two first heads just named.

34. That it was impossible to secure a proper flow of promotion by any mere reorganisation not involving extra expense, has been more than once recognised in the course of our past correspondence with your Lordship, and indeed is self-evident.

This question of pay and promotion is one of the two fundamental questions involved

involved in the reorganisation, and we can only ask your Lordship to take it up in a broad and liberal spirit, remembering that if an efficient staff of Engineers is to be kept up, they should be treated with at least equal liberality with the other professional services. Under the circumstances, we submit that the proposals, although they involve a considerable increase of expenditure for a time, are not more than the necessities of the case demand, or than the finances, in their present improving condition, will be able to afford.

Improved Pensions.

35. The scale of pensions for European Civil Engineers approved by your Lordship, in paragraphs 13 to 15, although not in some respects so favourable as our proposal, possesses many compensating advantages; it may also be said to be, in the main, thankfully accepted by the Committee. There are, however, various subordinate points upon which a decision is still required. We have, therefore, while taking advantage of the permission in your Lordship's 1st paragraph to make known to the Department without further delay a concession on which they set much store, been careful to do so in general terms only, in a Resolution, of which a copy accompanies as Enclosure No. 9. We have limited the pensions to a certain proportion of average pay, as apparently desired in paragraph 18 of your Lordship's No. 50 P.W. of 8th September 1881. We will now notice the subordinate points in question, on which an early decision is desirable.

36. First.—In paragraph 15 of your Lordship's Despatch, it is said that "the new scale of pensions will be applicable to all the *European Civil Engineers* of the Superior Engineering Branch." We are uncertain whether "European Engineers" means only Engineers who have had a European training, or includes passed students of the Indian colleges. The latter class includes several non-Statutory Europeans,*
* Principally sons of commissioned officers and civilians.
 as such used, up to recent times, to enter the Department through the Thomason College, and these can only be held to be excluded on the ground that "European Engineers" means Engineers who have had an European training.

The Committee recommend (Resolution XV.) that all Engineers now in the Department should be admitted to the new terms. It is, doubtless, extremely desirable to abolish distinction in rules applicable to men of the same service; but it seems that if (a) all passed students of the Indian colleges, and (b) others, (if any) trained and appointed in India,* were admitted wholesale, it would be an adoption of the principle of giving

* Nominal Classified Rolls have been prepared which will show the names and numbers of those who fall under each of the classes denoted, and, consequently, the names and numbers of those affected by the proposals. These classified statements (A to D) are appended as Enclosure No. 10, and are as nearly correct as they can be made at present.

to Natives and Europeans the same pay and pension rules, which your Lordship would disapprove, and might also open the door to the admission of other classes of the Uncovenanted Service to similar privileges. In preference to this, it seems to us that it would be much better to confine the new rules to the four classes named marginally,† but that it would be equitable to declare that Government is willing specially to consider the cases of deserving Europeans (being such by birth, education, and habits) outside these classes, who may rise to the rank of Superintending Engineers in the Department. This is, we think, the utmost that can be reasonably claimed, and such a concession in favour of the best men who have entered the Department from the Indian colleges in time past would doubtless tend to smooth away inequalities which are really anomalous. Men so admitted specially would be but few, and there would be no more in the future, because it would be understood that men admitted to the Department in India in future would be ineligible.

37. Secondly. With reference to paragraphs 16 and 19 of the Despatch under reply, and to the Committee's Resolution XVII., it must be explained that the

classes who, under present rules, count a certain portion of furlough as pensionable service, are the following :—

- (1.) Stanley Engineers.
- (2.) Cooper's Hill Engineers.
- (3.) All Civil Engineers appointed from England before 1st November 1873.

The Government of India originally recommended, in Despatch, No. 253, dated 20th August 1877, that this privilege should be extended to all not of purely Asiatic birth, but in the Secretary of State's reply, No. 63, dated 28th February 1878, it was confined to the above three classes to the exclusion of—

- (4.) Guaranteed railway men, and others trained in England, but taken into the employ of the Government of India.
- (5.) Passed students of the Indian colleges (European or Native).
- (6.) Others (European or Native.)

In paragraph 19 of the present Despatch it is said that, in accordance with the general principle established, those only to whom the more favourable leave rules apply will enjoy the privilege of reckoning certain portions of service for pension. We would point out that there is a misapprehension here, for those who count furlough as service, and those who enjoy the more favourable leave rules are not the same persons. All of classes 4, 5, and 6 (not being pure Asiatics), who, on the 3rd January 1872, held the rank of assistant engineer, 3rd grade, or higher rank, come under the more favourable leave rules, as well as the other classes; but they do not, as already explained, count furlough for pension. Probably, however, your Lordship intended to limit the privilege to classes (1), (2), and (3), as at present.

What we would now recommend is the extension of the privilege, (a) to class (4) unreservedly, as this will bring under the same rule all *European Engineers* in the sense apparently used by your Lordship in regard to the new pension rules; and (b) as suggested in paragraph 32 in the case of the more favourable pension rules, to deserving individuals of classes (5) and (6) who are *bonâ fide* Europeans, and rise to the rank of Superintending Engineers. With reference to concession (a) we would state that there are a good many of class (4), some of them men high up in the service, who labour under this disability. All such anomalous inequalities are a source of constant irritation far outweighing any petty advantage arising from them to the State, and we are in favour of eliminating them wherever this can be done.

38. Thirdly. The Committee's Resolution XII. recommends the extension of a privilege which is limited by the rules to trained Engineers appointed before the 1st November 1873 to a grade *above* the 1st grade of Assistants, to other Engineers similarly situated and appointed *in* the 1st grade of Assistants. The privilege is that of adding three years to the pensionable service in the case of those who did not receive a bonus from a Guaranteed Railway Company when they left the service of the latter. Thus the rule principally affects those who took Indian Government employ on their services being dispensed with by Guaranteed Railway Companies. The only extension in the rule, as it now stands, hitherto admitted by the Government of India, is in the direction of men who were appointed after the 1st November 1873 in the *Executive* grades. This date was fixed because it was then that the first batch of Cooper's Hill Engineers arrived. There is, however, only one trained Engineer who was appointed in the Executive grade after that date; Mr. Dibblee was another, but your Lordship has lately extended the privilege to him.

The number of such men so appointed in the grade of 1st Assistant is, however, larger. Such cases as this your Lordship would, doubtless, entertain favourably: for the correspondence on the subject, particularly paragraph 6 of Despatch No. 63, 28th February 1878, shows that it was never intended that any hard-and-fast line should be drawn. Looking, in fact, at paragraph 8 of Financial Despatch, No. 210, dated 6th July 1871, in which the concession was first mooted, it seems not improbable that, if in any individual instance hardship were

were proved by the limitation of the privilege to men appointed above the assistant class, the case must be favourably considered, the privilege having been then offered in general terms to *men of mature age*. We append (Enclosure No. 10E.) a list of the men who would be affected by a change in the rule, and we propose that the case of each of these should be considered on its merits, and that such additional service as may be considered fair, if any, and not exceeding three years, should be credited to them.

39. Fourthly.—In regard to the Committee's Resolution XVI, we do not think it desirable to extend to Executive Engineers the increased pension allowed to Superintending Engineers. We should say it would be better to take up any particular hard case than to make such a radical amendment in the rules themselves. Special recommendations made in such cases should be limited to men who had served in the 1st grade of Executives and had failed to obtain promotion to the Superintending Engineer Class *solely from there being no vacancy to which to promote them*. Such cases, it may be observed, may not be uncommon in some of the crowded years, when but a small number even of men eligible will obtain promotion to the higher posts.

40. Fifthly.—Resolution XVIII of the Committee applies to men of the permanent establishment who retired in 1879, and have been re-employed as temporary Engineers. These men may receive any salary not exceeding

950 rupees; but if their salary and the pension* they were granted in 1879 together exceed

the substantive salary they were drawing at the time of their retirement in 1879, they have to cease drawing pension, or they can only be credited with so much pension as will bring up their new salary to their old. This is a matter on which there has been an immense amount of writing at various times, and which has given much trouble. The working of the rule, also, is difficult, and causes much correspondence. We have lately had a correspondence with the Bombay Government regarding deductions on account of pension, made under orders of Government, from the salaries of officers with whom a distinct contract had been made by the Southern Mahratta Railway Company for certain salaries. As a general rule, so long as the condition is fully known by these officers at the time of their engagement, they can, unless they expect the high pay (950 rupees) that can be given, so arrange their terms as still to get as much net pay as they expect; and there will probably be a tendency on the part of their employers to assist them in this. A case lately before us, in which the pay of an officer was actually raised in his second year's engagement to meet the difficulty, illustrates this fact, and there is no doubt that the officers engaged for the Southern Mahratta Railway, had they and the Company known the conditions, would have obtained higher salaries.

In the case of men retired similarly in 1879, and subsequently engaged by local fund committees and municipalities, it was determined, after long discussion, that no retrenchment of salaries should be made on account of the pensionary sums received by them, but that, in fixing their salaries under the local funds, due consideration should be given to the fact of their income being supplemented by those amounts. We have already shown that the same rule works the reverse way in fixing the salaries of men from whom deductions are made on account of their pensions; the effect being that their salaries, chargeable to the works for which they are engaged, are raised instead of being diminished. Under these circumstances, we do not hesitate to recommend that the action of Section 183 of the Civil Pension Code, sixth edition, be suspended.

We would add that it seems doubtful whether the operation of this rule upon appointments which are confessedly made for not more than a year, and, if continued, have then to be renewed, and some of which only do last a year, or less, is not contrary to Rule 3, Section 188 of the same Code.

41. Sixthly.—The Committee's recommendation in Resolution XIII, that the retirement terms of 1879 be re-opened, may conveniently be noticed last in the series regarding pensions. The proposal is, we believe, not made with any idea of accelerating promotion, and its acceptance would certainly not have that effect, but because there are a few Cooper's Hill Engineers who consider that

they were brought into the service by representations regarding their prospects which have turned out to be incorrect.

This is so far true in that promotion has undoubtedly been slower than it would have been had the establishment been organised as it should have been for men entering the service with the prospects the Cooper's Hill men might reasonably expect, and as we now propose, rather late in the day, to organise it. If the terms of retirement were re-opened after the new scheme has been accepted and its intentions thoroughly explained to the Department, and were limited, perhaps, to those Cooper's Hill men whose promotion has been in the past slower than we propose to make it in the future, as explained in paragraph 10, we do not think many would accept the terms. At the same time, by having offered terms on these conditions, Government would have cleared itself with any of the men who consider themselves to have been injured irretrievably in their careers, and would start on a new basis, without any grounds for complaints on the part of the Engineers. There would be some advantage in this, but we think a decision on the point may be postponed for the present, until the new scheme has been put in working order.

42. In the cases explained in the preceding five paragraphs (36 to 40), we solicit your Lordship's approval of our recommendations.

Regarding compulsory retirements, we accept your Lordship's ruling in paragraph 11 of the Despatch under reply. It was also approved in the Committee's Resolution XX. We are entirely in favour of the policy of retirements at the age of 55, but do not see, with reference to the Committee's Resolution XXI, the necessity for any reiteration or strengthening of the rule on the subject.

Resolution XXV, recommending the retention in the Department of Royal Engineers who have been compulsorily retired under the age and length of service clauses of the Warrant of 1881, touches on a point which is of great importance to Royal Engineers of the Imperial List, but it need not be discussed here, as it is, strictly speaking, outside the present question, and is being separately considered between the Military, Public Works and the Revenue and Agricultural Departments.

We are unable, for obvious reasons, to support the Committee's Resolution XIV, that all pensions drawn out of India shall be paid in sterling.

The question of pensions for natives shall be separately considered, as desired in your Lordship's 22nd paragraph, and reported on hereafter.

43. This question of pensions may be considered the second fundamental one of the re-organisation, as the question of the rate of pay and promotion is the first. We forward, as Enclosure No. 11, a statement which has been prepared to show the probable annual charge on the revenues up to the year 1900, entailed by the extension of the new rules to Civil Engineers, as compared with what the charge would be under the old rules.

The increase in charge is not considerable, and even in the last two years, when the incidence becomes highest, it only amounts, when capitalised, to 2,71,701 rupees. The table shows the maximum charge for pensions on the supposition that all remain in the service until the age of 55, but the actual charge will, of course, be less, to whatever extent compulsory retirement at the age of 50 is practically enforced.

Provident Fund.

44. Your Lordship proposes to form a voluntary Provident Fund; 5 per cent. to be deducted from the pay of those who join it, and any one to be at liberty to contribute 5 per cent. in addition; compound interest at 4 per cent. to be credited annually; and the accumulated sum to be paid over on retirement, or, in the event of death, to the representatives; the question of compulsory contribution of those who enter the Department in future to be left over for the present.

The Committee recommend (Resolution XIX) that subscription to the fund be voluntary in the case of all those now in the Department, but compulsory on all who enter in future. They further recommend that all who wish be allowed to make a lump-sum contribution now, equal to what each would have subscribed had he subscribed from commencement of his service, compound interest

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interest being allowed from date of payment; and they recommend as the rate of interest $2\frac{1}{2}$ per cent., credited half-yearly, instead of 4 per cent. credited yearly.

The original proposal by the Government of India was to give 2 per cent. compound interest, credited half-yearly, on contributions of 50 rupees; but also that Government should double the contributions, so as to credit every officer below the rank of superintending engineer, with a monthly contribution of 100 rupees, namely, 50 rupees out of his present salary, and 50 rupees more as deferred salary. This was more liberal than the present proposal; but, on the other hand, it is contemplated now to increase the pay of the three higher grades by 50 rupees.

The Committee's proposal, as compared with that of your Lordship, would increase the eventual payment due to an officer retiring at 55 years of age as chief engineer, 1st class, after passing through all the grades, by 2,796 rupees only, as shown below,* so that the increase is not a very great matter to the individual.* At the same time, it would, in the aggregate, somewhat increase the annual payments to be made by the State. We are therefore prepared to accept the proposal of your Lordship as it stands. But we would submit that, in view of the Committee's recommendation that subscription should be obligatory on all who enter the Department hereafter, it is not worth while to defer making it so, as contemplated in the 18th paragraph of the Despatch under reply. We would also support the Committee's suggestion that back payments in the lump be permitted.

*

Period of Service.	Rank.	Pay.	Monthly Subscription to Fund.	AMOUNT OF SUBSCRIPTION AT END OF EACH PERIOD.		AMOUNT OF SUMS IN COLUMNS 5 AND 6 AT DATE OF RETIREMENT.	
				According to Secretary of States's Proposal.	According to Committee's Proposal.	Secretary of State's Proposal.	Committee's Proposal.
1.	2.	3.	4.	5.	6.	7.	8.
		<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
1st year to 4th	2nd Assistant Engineer.	350	17-5	892	909	2,781	3,304
5th " 8th	1st Assistant Engineer.	450	22-5	1,146	1,162	3,055	3,535
9th " 12th	4th Executive Engineer.	550	27-5	1,401	1,429	3,192	3,638
13th " 16th	3rd Executive Engineer.	700	35-0	1,791	1,818	3,489	3,874
17th " 20th	2nd Executive Engineer.	850	42-5	2,166	2,208	3,606	3,933
21st " 22nd	1st Executive Engineer.	1,000	50-0	2,224	2,242	1,884	2,026
23rd " 24th	3rd Superintending Engineer.	1,100	55-0	1,346	1,366	1,916	2,039
25th " 26th	2nd Superintending Engineer.	1,350	67-5	1,652	1,676	2,174	2,289
27th " 28th	1st Superintending Engineer.	1,600	80-0	1,959	1,987	2,333	2,482
29th year - -	3rd Chief Engineer -	1,800	90-0	1,080	1,090	1,263	1,302
30th year to 31st	2nd Chief Engineer -	2,000	100-0	2,448	2,484	2,648	2,715
32nd " 33rd	1st Chief Engineer -	2,500	125-0	3,060	3,105	3,080	3,105
						31,461	34,247
							31,451
							2,796

Excess of Fund at date of retirement according to Committee's proposal - - - 2,796

This table is calculated on the supposition that the sums are credited and interest begins to accrue at the end of each year, and may be taken as giving approximately correct results.

Miscellaneous.

45. We have observed, equally with your Lordship, the complaints which have from time to time been made regarding the distribution of patronage between Royal and Civil Engineers, and in appointments to the Secretariats and the Railway Control Staff.

The complaints regarding simple supersession arise, for the most part, from an ignoring of the sub-division of the Department into eight distinct lists, as per margin, and the further distinction, within some of these lists, between men employed on irrigation and other branches of work. Promotion on some of these lists is, from time to time, unavoidably faster or slower than on others, and, with every desire for impartiality, it is impossible for nominations to be made in an order at all corresponding with that in which all the engineers would stand in one general list based on strict seniority. Occasionally, it is indispensable to transfer men from one list to another to redress glaring inequalities caused by varying rates of casualty, or to introduce into some list men who have been withdrawn for political or military duty under a promise of re-instatement. Moreover, while promotion by merit is the established rule, and a rule which the Department generally prefers to promotion by absolute seniority, it is obvious that the test of seniority, on which these complaints mostly rest, is inapplicable. We believe that the new gradation and scale of pay now proposed will tend to make such complaints less frequent than in times past, but inequalities are inseparable from a system of lists, and past experience has shown that any other system is impossible.

With regard to complaints of preference of Royal Engineers for high appointments, we would point out that at the present time the bulk of senior officers in the Department, and consequently in the superior grades, happen to belong to that corps, but that in a very few years the preponderance will be the other way. We append, however, a statement (Enclosure No. 12) of the *personnel* of the Administration on the 1st January 1884, which will show that a considerable proportion of superior posts of trust and importance are now held by Civil Engineers, and that we have now two Deputy Consulting Engineers for Railways, and one Under Secretary to the Government of India, who belong to that branch. We can only assure your Lordship of our desire invariably to select, without distinction of class, the individuals who may be most competent.

We have, &c.
 (signed) *Ripon.*
D. M. Stewart.
J. Gibbs.
T. F. Wilson.
C. P. Ilbert.
S. C. Bayley.
T. C. Hope.
A. Colvin.

Public Works.—No. 71.

To his Excellency the most Honourable the Governor General of
 India in Council.

My Lord Marquis,

India Office,
 London, 13 November 1884.

1. IN continuation of my Despatch of the 22nd March 1883, No. 18, Public Works, in which, with reference to the earlier part of your Letter No. 15, Public Works, dated the 21st April last, I communicated to your Excellency the conclusion at which I had arrived as to the normal strength of the engineering branch of the Public Works Department and the rate and apportioning of recruitment for the next three years, I have now to convey to you my decision in Council in regard to the other points connected with the general subject of reorganisation which were noticed in that letter, and remain for settlement.

2. The first and most important is that of the readjustment of grades and the fixing of salaries. It has been agreed that the classes of Chief and Superintending

intending Engineers shall "depend on the exigencies of the work, and not on any arbitrary proportion." It is, therefore, only necessary to deal with Executives and Assistants.

3. It was proposed in my Despatch of the 22nd March 1883, that there should be an equal number of executives and assistants. You are of opinion that, although an equality would give a "fair start," it would result, in 16 years' time, in causing assistants to serve 16 years before attaining the rank of executive, and in producing a block of promotion in the 4th Grade of Executives. All the various schemes suggested, when scrutinised, have, on the calculations made, been found to fail in some way or other, in accomplishing all the objects desired, and this led to a proposal to establish an incremental system, by which pay would be annually increased, subject to certain conditions. Such a plan, however, appears to me, and to the majority of those consulted, to be unsatisfactory.

4. The scheme you now submit for sanction would largely increase the numbers in the higher grades, and would divide the service into three grades of executives, and three of assistants, the consolidated pay of all the executive engineers being increased by 50 rupees each per mensem, and a second grade of assistants being introduced at 450 rupees; increments also of 50 rupees per mensem being allowed to those who may not have reached the position of third and first-grade executives in 12 and 22 years respectively.

5. The immediate additional cost of these changes would be 5,53,000 rupees per annum, and is estimated by you to reach a maximum of 14,58,000 rupees in 1892, and to diminish in 1914 to 1,28,080 rupees.

6. With every desire to consider this matter in a liberal spirit, I regret that I am unable to see sufficient justification for sanctioning so large an increase to the expense of the permanent staff. I admit, however, that in the middle grades, there are grounds for reconsidering the rates of pay, and I am quite prepared to make some concessions in the direction proposed.

7. While maintaining the existing pay of the first and second grade executives at 950 rupees and 800 rupees per mensem respectively, I sanction your raising the third and fourth grades to 700 rupees and 600 rupees. It seems to me also especially necessary to improve the position of the assistant engineers, and I authorise the pay of the first grade being fixed at 500 rupees, and that of the second grade being continued at 350 rupees, with an addition of 50 rupees per mensem to all who have served three years in it. You will understand that the increased pay, sanctioned in paragraph 9 of my former Despatch for executive engineers of the first grade after four years' service, is to be maintained.

8. In sanctioning these improvements in the remuneration of the superior engineering service, it has, you will observe, been my desire that the change should be made with as little disturbance as possible of existing arrangements. I am not, therefore, disposed to approve of any alteration in the system of grading now adopted. In order to secure a more even flow of promotion, I sanctioned, in my former Despatch, the proposal that the number of executives and assistants on the list should be made equal. After deducting 64 from the normal strength of 888 for chief and superintending engineers, there remain 824, of whom 412 would be assistants, with 206 in each grade, and 412 executives, who may be divided in the proportion of 8, 9, 10, and 12, as before sanctioned, and contain, say, the following numbers:—1st, 82; 2nd, 94; 3rd, 108; 4th, 128. The present number being in excess of 888, there will necessarily be supernumeraries. I see no objection to your dividing them in the same proportions. But I leave it to you so to arrange that they shall be fairly placed, and that no block to the general promotion should be produced thereby.

9. You state in paragraph 35 that you have adopted the scale of pensions proposed in my Despatch of 22nd March 1883, and you have made the Department acquainted with this decision by your Resolution, No. 449, of the 18th April 1884. You point out that it is not quite clear which of the European Engineers in the service are to come under the new rules. The rules were

applicable, under my former Despatch, to the first three classes* mentioned in your 37th paragraph, and it was proposed in paragraph 19 of my former Despatch to give the privilege of counting furlough for pension to all appointed from England before 1st November 1873. entitled to the more favourable pension rules, but to no others unless specially admitted.

10. In order to remove as far as is reasonable all inequalities, and especially with the view of not retarding promotion, I agree to admit to the new pension rules, including all the privileges above-mentioned, the Engineers with English training appointed in India whose names are contained in Lists (a) and (b) of Appendix B. to Enclosure No. 10 of your letter under reply.

11. As regards the 5th and 6th classes† referred to in your 37th paragraph, I do not object to your proposal to consider favourably from time to time the cases of officers who rise to the rank of Superintendent Engineer, but the same privilege should be extended to Natives, with any general restriction that may be prescribed as to the amount of pension payable to public servants who are natives of India.

12. I may here state that I cannot consent to extend to Executive Engineers the extra pension sanctioned for Superintending and Chief Engineers.

13. You have raised in paragraph 38 the question of adding time to the pensionable service of certain Engineers who have been appointed to the Department after they have left other employment in India. I consent to your allowing, on account of previous experience, a period not exceeding three years to the service qualifying for pension of any of the officers mentioned in Appendix E. to Enclosure 10, provided such previous experience was not acquired before the age of 25.

14. As regards the retrenchment of salaries to officers employed by local authorities and companies on account of pensions which have been allowed to them upon leaving the service of Government, it has already been decided that men so employed should not be mulcted of their pensions, and I approve of the suspension in such cases of the effect of Section 183 of the Civil Pension Code.

15. I see no valid reason for the proposal (paragraph 41) that the retirement terms of 1879 should be reopened. There are great objections to such a measure, and I cannot encourage the expectation that it will be entertained if brought forward.

16. In regard to the Provident Fund, I am not disposed to alter the terms stated in my Despatch of March 1883, but I agree that subscriptions should be compulsory on all who join the Department in future. I am willing also to allow those now in the Department, who wish to join the fund, the option of paying up arrears at the authorised rates from the commencement of service, but, of course, with interest only from the date of payment.

17. Upon a reconsideration of the question of withdrawing military pay from the Royal Engineers in the Department, I agree with you in the conclusion that the pay in question may be continued as heretofore; but I do not approve of the proposal to establish separate lists of the Civil Engineer and Royal Engineer members of the Department, and I am not surprised that you found great difficulty in framing any scheme for the purpose.

18. I trust that the scheme of reorganisation which has now been sanctioned will fulfil the objects which, during the long discussions on the subject, have been continually kept in view by your Government, and by successive Secretaries of State in Council, and that the series of changes which have been made, embracing as they do a very considerable improvement in the scale of both pay and pension, may produce more rapid promotion and an amelioration in the position of the Department generally.

I have, &c.
(signed) *Kimberley.*

EAST INDIA (PUBLIC WORKS
DEPARTMENT).

COPIES of or EXTRACTS from CORRESPONDENCE
relating to the Relative Position of CIVIL ENGI-
NEERS and of Officers of the ROYAL ENGINEERS in
the PUBLIC WORKS DEPARTMENT.

(Sir George Balfour.)

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