Record Book of Scinde Irregular Horse Appendix to the Report (1856)

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but "very little" of the army und GIPE-PUNE-[illegible] Britaler thinks it desirable that the commanders-in-chief "should see more

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Reply by Lieutenant-Colonel Salmond.—The whole Indian army ought to be, and substantially is, under the Governor General of India, who is reponsible for the expenses of India, of which the military are a main branch, and the Governor General has, in late despatches, been specially exhorted to exercise the control with which he is legally vested, habitually and vigorously.

To give full effect, however, to this essential power, the Governor General ought also to be appointed Captain-General, so that no obstacle or counteracting authority may impede or mutilate such orders as he may find it necessary to give with a view to military economy.

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Reply by Major-General Sir J. Malcolm, G.C.B.—14. In answer to the eighth query, I must disclaim refer to my Political History of India, and can only state that all my recent experience confirms of so conviction of the expediency and wisdom of uniting the armies of the three presidencies of India on the principles I have in that work suggested.

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Extract from
of the India
aga. *July 1858)* *Extract from Malcolm's "History of India," pages 213 to 220.*
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into one, * n for consolidating the forces of the three presidencies into one army was recom-
h presid ago as a measure of expediency.
* engal ar have since taken place have rendered it one of necessity. The territories of our
sdicc are no longer divided by seas and continents. Though we do not actually
ns India, we have military occupation of every province of that extensive country;
ntain from twenty to thirty thousand men in stations, which, as far as the position
of forces is concerned, experience has proved to be alike convenient to Bengal, Madras, or Bombay. Besides this fact, no internal rebellion, much less foreign war, can occur, without the troops of the different presidencies being called upon to co-operate. Yet such continues to be their distinct organization, with regard to the pay and establishments both of fighting men and followers, that they can never be brought together without danger of serious discontents if not mutiny. It would be superfluous to expatiate on causes and effects, the nature and consequences of which must be obvious to the most superficial observer. Those whose experience has enabled them to form a better judgment upon the question must see, not merely serious inconvenience, but danger in continuing to leave it unsettled. The remedies are easy, and the application can be opposed only by men whose minds are fettered by local prejudices, or who desire to foster distinctions and divisions amongst those whose harmony constitutes the true safeguard of the state.

From the character of the native army, and the similarity of habits and language of a great proportion of these military classes of whom it is composed, no inconvenience or embarrassment could result from making the three armies of India three divisions of one army. Each division would remain as at present: cadets would be nominated to it and be appointed as vacancies occurred to its regiments. On such an organization taking place, it would be better that officers should rise regimentally to the rank of Lieutenant-Colonel, instead of that of Major as they now do, as such an alteration in the actual system would prevent their removal from distant parts of India, except when an increase was made to the army. On such an occasion the senior officer of each rank would be promoted, not those of any division. The above plan would disturb nothing that is established; the staff would continue as at present, unless it were deemed expedient to select the generals* employed upon it from the whole army, instead of the division where the vacancy occurred. The off-reckonings to commandants of regiments are at present consolidated in one general list, and officers would succeed, if this plan were adopted, to be Colonels of corps by seniority in the Indian army, not in the division to which they had as regimental officers belonged. The pay and allowances of all ranks, from the general who commanded to the lowest public follower, would, on this change taking place, be regulated by clear and understood principles of equality and justice, so as to leave no ground of complaint of any one part of the army from the comparison of its condition with that of another part employed on the same service and the same duty.

That there might be petty difficulties in carrying into execution some of these changes in the constitution of our Indian army, cannot be denied. The chief objections will occur to the minds of men who have not served in that army during the last ten or twelve years, and such will be least sensible of the necessity of making them. Those who know the military stations we now occupy, and who have had opportunites of observing the recent intermixed employment of the troops of the different presidencies, will well understand the absolute necessity of putting an end to distinctions which have embarassed, and will, if not altered, continue to embarrass the public service. The feelings and prejudices of individuals may lead them to suggest doubts as to the wisdom of a plan which proposes in some cases to transfer officers from one division to another. They may bring forward the difference of character of the sepoys, and the different treatment they require, and it may be also alleged that the removal of an officer from one extreme of India to another will be a hardship. To the first of these arguments, it may be said that, whatever was formerly the case, there is at present no essential difference either in language, habits, or character of the native troops of our establishments, and that whatever may be their usages they all require to be treated in the same manner. With respect to the European officer, it is desirable, on every ground, that he should never be local. The more he is exposed to the vicissitudes of the service, and to be employed in different parts of the empire, the more his experience and knowledge will be enlarged, and those qualities, with whatever of inconvenience or hardship their attainment is attended, must ultimately prove as beneficial to the individual as to the Government.

* This discretionary power might safely be entrusted with the Commander-in-Chief of India.

Many and essential benefits would result from consolidating the local armies of India into one; there would then be an end to discontents which have so often arisen concerning a difference in pay and allowances, and from increase of one establishment to the real or supposed injury of another. This was not felt formerly in the manner it must be at this period, when the third of our military stations can be occupied with equal facility by the troops of any one of the presidencies. Whenever an increase of corps is required, it becomes a question of judgment with the Governor General, to which army it shall be given, and a slight previous change in the disposition of the forces will make it easy to transfer the apparent expediency of an increase from one presidency to another. Whatever may be the talent, the justice, or the impartiality of the Governor General, he can never hold the balance in a manner that will prevent discontent. Bodies of men will always have their feelings agitated by measures which so seriously concern their future prospects in life, when these are so liable to be affected by the decision of an individual in power, and if that decision is unfavorable to them, they will impute to him, however insufficient the grounds, motives of partiality or weak submission to the influence of those by whom he is surrounded. The nature and effect of the feelings to which the present system must give rise, will be perfectly understood by all acquainted with the temper and constitution of armies. The remedy of this evil should not be deferred. If there is a dislike to direct the immediate adoption of an arrangement making the benefit of increase of corps general, at any rate all regiments for the future might be equally distributed between Bengal, Madras, and Bombay, commencing with those which the officers are most backward in promotion. What has been before stated will show that the slightest difficulty could occur on the ground of the increase being more wanted at one presidency than at another, as that would be obviated by the transfer of the duties of a station from one presidency to another, as its position was equally convenient to the presidency receiving the benefit of the augmentation.

A second advantage from amalgamating the local armies of India would result from the adoption of a plan by which the nomination of European officers from a general list to newly-raised regiments would be a matter of indifference to those where the men were recruited, or where employed. The consequence would be, that the whole native army would be more disposable than it is at present to serve in any quarter of our dominions. Occasions have occurred, and are more likely than ever to occur, when our safety may depend on our power to employ the natives of Bengal in the territories of Madras or Bombay, or those of the latter in Bengal or Hindustan. Looking to those internal commotions from which we cannot expect exemption, there is no principle of policy likely to be more conducive to the security of the empire; but we must in a great degree be deprived of the advantage it offers till a plan is adopted which shall put an end to the separation of interests now existing among the European officers.

The third advantage of the plan proposed is of consequence for the same object, that of rendering our native army more available in every part of India, and of enabling us to employ them together, without creating a spirit of discontent which has often approached to mutiny. This can be done only by assimilating, on the principles suggested, the pay and allowances of the native soldiery and public followers. These should be fixed with reference to certain general principles, and not be dependant on the establishment to which this or that soldier of the same Government belonged. The military equipments and departments* of the forces of the different presidencies should be constituted on the same general principles, and be as little different in practice as local circumstances would permit; otherwise we shall never have our Indian armies possessed of that efficiency and strength which they should have for united operations.

APPENDIX VII.

Opinions of His Royal Highness the Duke of Cambridge, General Jacob, Sir Sydney Cotton, General Hancock, Sir Charles Trevelyan, Lord Lawrence, Lord Sandhurst, Sir Henry Durand, and Sir Harry Tombs, in support of a re-adjustment of the Bengal Army, and the introduction of a system of Army Corps.

Extract from His Royal Highness the Duke of Cambridge's answers to the questions proposed by the Commissioners appointed (15th July 1858) to enquire into the organization of the Indian Army.

[Appendix No. 73, pages 219-220-21.]

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8. Whether the Bengal army ought not to be divided into two or more armies?

8. I think the Bengal army should remain as at present, and not be further divided; but I think that the Commander-in-Chief should have his head-quarters, if practicable, at a more central station than Calcutta; and I would introduce the system of *corps d'armées* into the Bengal Presidency, to be commanded by Lieutenant-Generals, all being part of the same army, and under the undivided authority of the Commander-in-Chief.

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Native Army.—The experience of the last few years convinces me that the native armies of the three presidencies should be kept as separate and distinct as possible; and there cannot be a doubt that

* This particularly applies to that most important of all military departments, the commissariat. The difference of principle in that of Bengal and those of Madras and Bombay is such that it becomes almost impossible to employ the troops together during any long period of operations.

the suppression of the fearful mutiny from which we are now [illegible] may, in a great measure, be attributed to the totally distinct character and feeling of the native [illegible] of each presidency .....

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As regards the command of the troops, I would leave that much as it is at present. I would not add a fourth army to those of the three existing presidencies, but I would as now make the Commander-in-Chief in Bengal Commander-in-Chief in India, with the same powers he now exercises over the two other presidential armies, and I would denominate the superior officers at Madras and Bombay commanders of the forces in those presidencies, in contradistinction to the Commander-in-Chief. I would, however, as already stated, divide Bengal into *corps d'armée*, probably three in number, the officers commanding these corps to have considerable powers, but still all directly under the authority of the Commander-in-Chief in Bengal. Such an arrangement would greatly reduce the detail labors of the latter, would give him more time to devote to the many important subjects which are daily brought before him, and would in a great measure get over the difficulties consequent upon the vast distances that separate the various stations from one another, and render constant supervision a matter of so much trouble and inconvenience .....

Extract from a paper by BRIGADIER-GENERAL JOHN JACOB, C.B., *embodying a scheme for the re-organization of the Indian Army, published as a supplement to the Report of the Commissioners appointed (15th July 1858) to enquire into the organization of the Indian Army.—Page 93.*

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A fourth presidency, to be styled the North-West Presidency, and a fourth army to be formed, our present Bengal and Bombay armies together being divided into three equal parts for this purpose.

Extract from a despatch, dated 11th June 1858, from Major-General SYDNEY COTTON, *to Major-General* SIR W. R. MANSFIELD, K.C.B., *published as a supplement to the Report of the Commissioners appointed (15th July 1858) to enquire into the organization of the Indian Army.—Pages 121, 122, and 124.*

Paragraph 6.—Of all the changes required in the great army of British India, there is none so much needed, indeed, so imparatively called for, as the power to act on sudden emergencies, by officers holding commands. It is most necessary that they should have the means nearer at hand to obtain instructions from the supreme military authorities and the sanction of proposed measures without delay. The great machinery of military affairs is much too complicated for such a country as India; I would therefore suggest that commanders of the forces, with vastly increased powers to act on their own responsibility, may be so located, and within the reach of the troops, as to remove all possibility of delay in carrying out measures of public utility.

In my humble opinion there should be but one commander-in-chief of all the armies of India, whose motto should be "Ubique," and he, as supreme military authority, should be vested with powers *in ordinary matters* to act, without referring to the Supreme Government of the country. It is impossible adequately to express or to explain the embarrassment caused, and the evils to which the soldiers are liable, by the difficulty and delay which occur in obtaining authority for carrying out the most trifling measures of necessity.

I would have commanders of the forces, but not commanders-in-chief, at the subordinate presidencies, *viz.*, there should be one in Bengal, one at Madras, one at Bombay, and one in the Punjab and adjacent provinces, all four reporting to the chief of the staff, for the information of His Excellency the Commander-in-Chief.

The whole of the armies of India should be under one system, and under the same code of regulations, so that they might be transferred from one presidency to another without difficulty or inconvenience.

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Paragraph 13.—I would divide the army into corps, each corps to consist of at least 20,000 men, and be numbered and kept entirely on field establishments. These *corps d'armée*, as they should be termed, should be under the command of a major-general, with the personal staff of military secretary and two aides-de-camp, with a general staff of assistant adjutant general, assistant quarter-master general, and deputies, so competent to the duties of the command and so complete that business could meet with no hindrance. These *corps d'armée* should have their own commissariat, ordnance, and barrack departments, and be divided into brigades, fully officered, with staff, as on field service. Camp equipage and carriage should always be kept up, so that the troops might move at a moment's notice, and every *corps d'armée* should take the field for exercise two months in every year. The present system of placing 12,000 men of the three arms (sometimes more and sometimes less) under one brigadier, with a single brigade-major, should be at once discontinued. The Honorable the Court of Directors of the East India Company, who have established this system, probably looking to small expenditure, and that only, do not appear to have been aware or mindful of the necessities of armies. These old arrangements may cause a small draft on the treasury for commanders and staff; but they are not economical, because practically (under such circumstances) troops cannot be efficient for immediate service. Every soldier, to whatever arm he may belong, should be kept on the roll of *corps d'armée*, where rigid and strict discipline being maintained, and all the military exercises being practised, none would be deteriorated by being temporarily on detached duties. It must be necessary, of course, sometimes to detach troops from these large bodies, but detachments should be relieved very frequently, and hence very little evil would happen to them.

The great forts, such as "Fort William," might or might not be an exception to this rule. It is impossible for any officer to enter into a detailed statement, pointing out all the necessary localities for

these *corps d'armée* in a political point of view, and, therefore, in writing on the subject, I can only recommend for the consideration of Government the general principles on which I would reorganize the army. The whole of my suggestions are intended to point very distinctly to the great principles on which such a country as India should henceforward be ruled, with a view to its future security, the general reorganization being essentially military.

Extract from a Report by MAJOR-GENERAL H. HANCOCK, *Bombay Army, dated 5th March 1859, published with the Report of the Commission appointed (15th July 1858) to enquire into the organization of the Indian Army.—Page 30.*

The Bengal army is much too large, and is spread over too great an extent of country for efficient control and superintendence. Its immense size and union under one head have always had the evil effect of facilitating a much more extensive and dangerous combination than could possibly have taken place had the same extent of territory been garrisoned by two separate armies, each under a Commander-in-chief of its own, which has been sufficiently proved by the Madras and Bombay armies not having joined in the late mutiny. Had such been the arrangement, in all probability each would have been recruited principally within its own districts, and, like the Madras and Bombay armies, would have had differences in its composition and system of government, which would have similarly lessened very considerably the facilities for combination between the two.

Another evil effect, resulting from the immense size of the Bengal army and its union under one head, has been, that it has held a fixed and most undeserved position of superiority with the Government of India, which has not only shewn it undue favor by placing almost all classes of its officers, by means of a larger proportion of full batta stations, and a higher scale of allowances for staff and other detached appointments, on a much superior footing to those of the minor presidencies, but has regarded it as a model on which to mould the other armies, not unfrequently negativing suggestions, submitted by the commander-in-chief of the latter, for improving their efficiency, upon the sole ground of the particular measure proposed not according with the system obtaining in Bengal. This has probably resulted in a great measure from the circumstance of the Commander-in-Chief in India being also the Commander-in-Chief of the Bengal army, and of all the principal appointments immediately under him and the Government of India being held by officers of that army, who may reasonably be supposed to have been prepossessed in favor of their own system, and whose official influence has doubtless had great weight with those high authorities. But the consequence has assuredly been most disastrous, and the only effectual remedy for the evils above pointed out will be found in making the armies of all the presidencies as nearly as possible equal in size, and entirely so in all other respects. In order to carry this fully out, the commander-in-chief of each army should be made perfectly independent of the others. Although it is almost desirable that uniformity should be maintained in all with respect to pay and allowances of every kind, pensions, and the systems of promotion and field exercise, it is equally so that much diversity should be allowed with regard to all minor matters in view to afford in each a safe field for testing the value of changes which may be suggested from time to time for improving their respective systems of organization and discipline, and to foster that emulation and rivalry between the three armies which cannot but tend to promote the efficiency of them all. It is obvious that if placed under the supreme command of the Bengal Commander-in-Chief, he would be generally led to regard his own army as a model one and be constantly tempted to exercise his authority to bring the Madras and Bombay systems into conformity with that of Bengal, in matters wherein diversity would be more advantageous to the public service.

Extract from the answers of SIR C. E. TREVELYAN, K.C.B., *to the questions proposed by the Select Committee on East India Finance, appointed 7th February 1873.—Pages 59 and 60 of 3rd Report.*

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An army corps sufficiently equipped, a proper proportion of it should always be ready for active service. The same at Bombay: there should be another army corps at Bombay. The same for Lower Bengal and Behar: there should be another there, one advantage of which would be that the military protection of the eastern frontier would be better looked after than it has been of late years. The same for the North-Western Provinces. The same for the Punjab; and in the Punjab this arrangement would be attended with the great incidental advantage of absorbing the separate frontier military force which is under the immediate direction of the Government of the Punjab, and has been open to great objection from the military character it has given to the Government of the Punjab. I believe that we owe to the connection of the Government of the Punjab with that frontier force a great many border expeditions that might well have been saved; it would be a great thing to absorb that into the regular army. Then there might be a large reduction of the artillery.

830. Mr. Dickinson,—You have left out Scinde? Scinde is a thinly-peopled, peaceable country; a very small force suffices for Scinde; that may be taken with Bombay. This large reduction of native force, combined with a considerable reduction of artillery, would amount to a very considerable saving. As regards some branches of the Indian administration, there ought to be a very extensive decentralisation; but as regards the army, the time has come for a very important contralisation. In other words, the time has come when the entire army of India ought to be under the Supreme Government of India.

831. Chairman,—You mean made one army? Made one army under the Supreme Government of India. Everything has approached to that; we are on the verge of it; the difficulties have already practically been overcome,

832. Do you mean that there should be only one general staff, so that the economy should be carried through the whole administration of the three armies, by treating them as one? That there should be one army, one general staff, one general command, and that we should get rid of the separate head-quarter staffs of Bengal, Madras, and Bombay. In mere salaries and allowances that would be a very considerable saving; but the indirect saving of stopping expenditure at its source would be still greater. These head-quarter staffs of the different presidencies, with their old traditional ideas of separate armies and separate commands, have a great tendency to keep up expenditure; they must all have the same establishments; they have actually got separate gun-carriage and gunpowder manufactories, and a complete equipment and outfit for each army, just as if it were the only army. In that indirect way there would be a great economy.

833. Do you attach, then, no importance to the view that has been so often expressed by those connected with Indian administration, that it is extremely desirable to have the military force upon more than one base in India, so that in case of a mutiny or other disturbance of a comparatively local character, there would be a chance of the other forces not being influenced by it? That consideration was entitled to influence in former days; but circumstances now have entirely altered: the old formidable Bengal native army has disappeared; the much smaller native force which we now have in Northern India is well in hand, and the Madras and Bombay armies have virtually lost their separate character, and should be converted into native forces, auxiliary to the local European force. Moreover, we have amalgamated the entire European army; that is a great facility; it is all one army now, all relieved from England; as it is under one command in England, so it ought to be under one command in India. Then, too, the improved means of locomotion by railways and steamers have made one regiment as good as half a dozen.

834. Do you think that the considerations which apply to the English army apply also to the whole native army, and that it is not desirable to continue any amount of separation even between the Deccan and Hindostan? The local principle may be retained within limits. We might make the native auxiliary force local as regards each presidency, that is, as there is now a native local force auxiliary to the European force serving in Northern India, so there might continue to be a small auxiliary native force for service in the Madras Presidency, and the same in Bombay. Each auxiliary native force should be recruited, as far as possible, within its own limits, although liable to serve beyond them in the event of active operations in the field. We should thus retain whatever benefit may be derivable from the existing separation of the three native armies. In fact, that separation would be more complete than ever, which would save the heavy expense of batta to native troops serving out of their own presidency. I consider that merely a matter of detail.

835. You would have a division of the army under a divisional general instead of its being a separate army as it is now? Yes; I would do it by army corps; there would be five army corps.

836. Would you rely mainly for the preservation of the peace upon the new improved local police corps in the different provinces and presidencies? The absence of that new improved local police corps formerly rendered it necessary to employ the native troops on a great scale. The economies that were made in the native military force in the Madras Presidency within the first few months of the establishment of the new police were extraordinary; and but for that we could not reduce the native army. Formerly every jail, every treasury, was garrisoned from the native army; now the native troops are all concentrated for purely military purposes; they have consequently more regiments than they know what to do with; they know not where to put them. They have been retained, not for the sake of the native troops, or for any real use they are of, but owing to the embarrassment of having such a large number of European officers thrown upon the hands of the Government.

Opinion of LORD LAWRENCE *and others* (*Report from the Political and Military Committee of India Office, the 30th June 1859*).—*Page 13.*

36. * * * * * * * *

It is a question with the Committee whether there should not be separate commanders of the forces for the Punjab, for the North-West Provinces, and for Bengal, with two, perhaps, for Bombay, including Scinde, and two for Madras, provided such an arrangement can be carried into effect without any increase of expenditure, which the committee believe, by the remodelling of divisional commands and by re-casting the general staff, to be practicable. These commanders of the forces would carry on all the executive duties of the commanders-in-chief within their own circles. They would, during the proper season, make a tour through their respective provinces, and make themselves thoroughly acquainted with the resources and physical features of the country, and with the officers and troops under their command.

Extracts from a Minute by HIS EXCELLENCY THE COMMANDER-IN-CHIEF *of the Bombay Army*, LIEUTENANT-GENERAL SIR WILLIAM MANSFIELD, K.C.B. (*Lord Sandhurst*), *dated 2nd January 1861, on the consolidation of the general staff of the Line and Local Armies.*

I would then divide the present Bengal command into three *corps d'armée* to be commanded by lieutenant-generals-in-chief, each of whom would correspond with the Minister of War on all army matters, and with the Horse Guards * in the same manner as is now done by the officers commanding in the several presidencies.

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* It would probably be convenient for the Horse Guards to correspond with the Minister of War in India on subjects of general import to Her Majesty's regiments, as is now done in the communications between His Royal Highness the General Commanding-in-Chief and the Commander-in-Chief in India.

As the Supreme Government found it necessary to divide the immense swollen presidency of Bengal into three governments, to ensure the reality and limitation of local authority, so I believe it to be necessary to divide the Bengal army into three *corps d'armée* for the maintenance of discipline and of personal command. Had the army of Bengal been so divided before 1857, it admits of a doubt whether the mutiny of one portion of it would have entailed the spread of the disorder throughout the other corps. Our experience of the manner in which it was possible to hold the Madras and Bombay armies together, in spite of the example and propaganda to which they were exposed, seems to show that safety would have been found in that division of commands and *corps d'armée* which has now been recommended.

Extracts from the answers of COLONEL H. M. DURAND, C.B., *to the questions proposed by the Commissioners appointed 15th July 1858 to enquire into the organization of the Indian Army.—Pages 224 and 242 of Minutes of Evidence published with Report of the Commissioners.*

There is also another thing which I have omitted mentioning, which I intended to mention before, which is that I think that it is of immense importance to India to keep the presidential armies separate, and that this amalgamation would inevitably lead to fuse those three armies together, which ought to be avoided as much as possible. It is rather a delicate point, but in future we cannot be too careful in keeping the three armies separate, and in fact it would be better if we divided the native portion of the Bengal army into two armies; but merely looking with reference to the three presidencies, I look upon it as exceedingly important not to take any measures which shall fuse those three armies.

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5512. (Major-General Hancock);—You stated yesterday, I think, that in your opinion it would be advisable to divide the Bengal native army into two; upon what ground do you rest that opinion?

Upon the ground which I hold, and which a good many others hold, that in future it would be very desirable (I dwelt upon it incidentally in other parts of my evidence) and necessary to keep the presidential armies separate; so likewise with that great army which belongs to the Bengal Presidency. That presidency may be divided into two or three great areas, in which the people are very distinct, and in which there is a very considerable degree of that sort of jealousy and animosity which always exist between conterminous people. It is advisable for us to take advantage of that sort of feeling. The feeling of the Punjabees, and the heart with which they served us, was partly owing to this sort of national or *quasi*-national feeling on the part of the Punjabees against the Hindustani people; they had no compunction in plundering their cities and working against them. It was just the same, and would have been much more the same, with the Hindustanis when we went into the Punjab if it had not been for preliminary tampering between the Punjab army and the Hindustani. A part of the Punjab army under Runjeet Sing was formed of Hindustanis, because he knew the Sikhs perfectly well, and he took good care to have a portion of his force Hindustani, in order to qualify the preponderance of the Sikh element there. We must take advantage of that; practically, I would divide that great army into two.

Extract from a Memorandum on Army Organization by MAJOR-GENERAL SIR H. TOMBS, V.C., K.C.B.

In putting forward a scheme for the formation of territorial armies for the five provinces of British India, now administered by Governors and Lieutenant-Governors, I pretend to no originality.

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My impression is that, as soon as the system came into working order, there would be five armies, each of which would, in its native element, be nearly homogeneous, and that in the event of mutiny, one of these armies could be safely pitted against another; whilst when serving in the field against a common foe, a spirit of emulation and rivalry would arise between them from which great things might be expected.

APPENDIX VIII.

The abandonment of Jhansi.

Extract paragraph 10, from a letter from COLONEL J. S. PATON, *Quarter Master General, to the Secretary to the Government of India, Military Department, No. 1038, dated the 21st March 1864.*

10. Jhansi is as unhealthy as Gwalior, and, as Commander-in-Chief of this Army, His Excellency ventures to record his opinion that, to leave the cantonment with its British garrison of all arms under the fire of the stronghold of Jhansi, now ceded to the Maharaja of Gwalior, is to place them and the interests which they protect in a very false military position. It is needless therefore to allege any further reasons than the above for the removal of the garrison of Jhansi to a more healthy and military position, and His Excellency would propose to locate the present garrison of Jhansi with that of Gwalior at Goonah and Nowgong.

Extracts from a Minute by the HONOURABLE SIR R. NAPIER, *dated the 24th June 1864, regarding the retention of Morar Cantonment.*

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. . . . I entirely concur with His Excellency in the necessity of removing the troops from Jhansie, as there are no imperative reasons for holding that particular spot; and the Fortress of Jhansie having

been given to Scindia, the cantonment became a false position, in which it would not be proper to retain a British brigade.

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Lullutpore is an important point on this account, but the opening of plenty of good roads is the surest way of diminishing our out-posts.

Extracts from a Minute by SIR JOHN LAWRENCE, *Governor General of India, dated the 27th June 1864.*

Gwalior District.—I am for holding Gwalior as strongly as practicable, and giving up Jhansi, and for concentrating the rest of the troops at the most centrical and important positions in this district. To this end I would add to the present force at Morar a garrison battery to be in the fort, and make up the European infantry to two full regiments, three companies of which would likewise be in the fort.

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Nowgong.—To have a wing of British infantry from Jubbulpore—one battery of field artillery and regiment of native cavalry from Jhansi, also a full regiment of infantry from Jhansi.

Extract from a Minute by SIR HUGH ROSE, *Commander-in-Chief in India, dated the 15th July 1864.*

I have so fully entered into the subject of the advisability of evacuating Jhansi in the distribution of the army, now under consideration, that it is needless here to reiterate my convictions that not only for sanitary, but political, reasons of the highest importance, this station should cease to be occupied by British troops.

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I concur in the withdrawal of the troops from Jhansi. . . . .

C. E. TREVELYAN.

Extract from the Proceedings of His Excellency the Governor General of India in Council, in the Military Department, No. 749, dated the 17th January 1865.

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Resolution.—The question having now been very carefully considered, the requirements of each division and district separately in the first instance, and the whole subsequently reviewed as one question, the Right Hon'ble the Governor General in Council has finally determined on the permanent distribution of the European force in this Presidency as described below.

* * * * * * * * *

Para. 7.—As the Fortress of Gwalior will be retained in British possession, and a recent careful examination of the surrounding country by a special committee convened for the purpose has shewn that there is no other eligible site for the force to be cantoned near the capital, the troops will remain at Morar, of the situation and capabilities of which the committee have recorded a very favorable opinion. The station of Jhansi, however, will be given up, and a better situated and probably more healthy cantonment be formed at Nowgong in the Saugor District. Nagode will also be given up as a station for European troops.

Gwalior and Saugor District.

Extract from a letter from COLONEL P. S. LUMSDEN, C.S.I., *Quarter-Master General, to the Secretary to the Government of India, Military Department, No. 2217, dated the 16th June 1870.*

* * * * * * * * *

Para. 21.—His Excellency believes that Government has directed the evacuation of Jhansi, and this being so, the head quarters wing of the infantry regiment now located there should go, as originally intended, to Nowgong, while the other wing should complete the garrison of Gwalior.

Jhansi, Nowgong.

* * * * * * * * *

Extract from a Minute by MAJOR-GENERAL NORMAN, C.B., *dated 10th September 1870, on the proposed distribution of the Force of British Cavalry and Infantry in India.*

* * * * * * * * *

Gwalior District.— . . . . It was decided in 1865 to give up Jhansi, substituting for it the cantonment of Nowgong, and there seems no reason to alter this decision, nor does the Commander-in-Chief propose it.

APPENDIX IX.

Correspondence regarding the abandonment of Quilon and the transfer of the Native Infantry Regiment, hitherto stationed at Palamcottah, to Trichinopoly.

No. 478, dated Simla, the 23rd September 1879.

From—The Secretary, Army Commission,

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

Referring to paragraph 23 of the Report of the Native States Armament Committee, I am directed by the Army Organization Commission to enquire whether, in the opinion of the Foreign Office, it will not fulfil the obligation of the treaty to station the native infantry regiment now at Palamcottah (Quilon being given up) at Trichinopoly, as the communication by rail would admit of assistance being furnished to the Travancore State with great rapidity.

No. 1316G.-P., dated Simla, the 4th October 1879.

From—A. MARTINDALE, Esq., Offg. Assistant Secy. to the Govt. of India, Foreign Dept.,

To—The Secretary to the Army Organization Committee.

I am directed to acknowledge your letter No. 478, dated the 23rd September 1878, in which you ask the opinion of this Department whether the treaty obligations existing between the Government of India and the Travancore State would be contravened if Quilon were given up as a military station, and the native infantry regiment now stationed at Palamcottah in the Tinnevelli District were transferred to Trichinopoly.

2. In reply, I am to say that in the opinion of this Department there is nothing in these treaty obligations which stands in the way of the arrangements now proposed.

* * * * * * * * *

APPENDIX X.

Correspondence regarding the nature of Treaty Engagements with Native States for the maintenance of subsidiary or contingent forces.

No. 477, dated Simla, the 23rd September 1879.

From—The Secretary to the Army Commission,

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

I am directed by the Army Organization Commission to enquire whether, in reference to treaty engagements with Native States, if the same number or nearly the same number of sabres and bayonets be maintained, the number of regiments or battalions may be altered.

No. 93G.-M., dated Simla, the 4th October 1879.

From—T. J. C. PLOWDEN, Esq., Under-Secy. to the Govt. of India, Foreign Dept.,

To—The President, Army Organization Commission.

In reply to your Secretary's No. 477, dated 23rd September 1879, I have the honor to inform you that, in only two of our treaty engagements with Native States, for the maintenance of subsidiary or contingent forces, are the actual number of regiments, or men, particularly laid down.

2. In Hyderabad we engage to maintain—

(*a*). A *subsidiary force* of not less than eight battalions of sepoys, and two regiments of cavalry, with their requisite complement of guns and European artillery.

Though it would come to practically the same thing if we maintained a number of bayonets and sabres equivalent to the strength of the battalions and regiments, the Foreign Department would prefer not to alter the number of the battalions or regiments so as to substitute a number different from that specified in the treaty,* without reference to the Nizam's Government through the Resident. It is anticipated, however, that no objection will be made, on the understanding that there is no material variation of the number of bayonets and sabres.

*Aitchison's treaty, Volume V, No. L.

(*b*). *The Hyderabad contingent.*—In this the numbers only are stipulated, *viz.*, not less than 5,000 infantry and 2,000 cavalry, with four field batteries of artillery. Thus we have power to arrange the number of regiments as we please.

3. In Baroda we are bound by the treaty of 1805 to furnish a permanent subsidiary force of not less than 3,000 regular native infantry, with artillery. In 1817 an addition was made of one battalion of native infantry, 1,000 strong, and two regiments of native cavalry. Thus the whole force obligatory consists of—

4,000 Infantry.
2 Regiments Native Cavalry.
1 Company European Artillery.
2 Companies of Gun Lascars.

In these agreements with the Baroda State, the number of men appears to form the essential point, so that the division into regiments would rest with the British Government.

APPENDIX XI.

Orders of Her Majesty's Government in regard to the desirability of fixing the strength, transport establishment, &c., of Brigades, Divisions, and Army Corps in India.

No. 92M., dated India Office, London, 1st April 1878.

From—Her Majesty's Secretary of State for India,

To—The Government of India.

I forward for your consideration the accompanying copy of a communication from the War Office,* and its enclosures, regarding the desirability that the details of the strength, transport establishment, &c., of cavalry and infantry brigades and divisions of Indian troops shall be authoritatively laid down.

* From War Office, 2nd March 1878.

2. The Secretary of State for War suggests that the standard adopted should be that for inland operations in India, but that modifications should be prescribed to suit operations in the different countries surrounding India, *viz.*, Afghanistan, Burma, China, and Persia. . . . . .

3. I agree with Mr. Secretary Hardy, and request that your Lordship will cause tables to be prepared for brigades and divisions and army corps on the same principle as that adopted by the War Office, and issued with Army Circulars, dated 1st December 1877, and adapted to the several conditions of country and climate, in which it is probable an Indian force might be called on to serve. It would be also very desirable in the table for the equipment of troops serving out of India that the British equivalent of the Indian equipment for carriages, &c., should be given.

4. I request that I may be furnished with these tables, to be authoritatively adopted under your Lordship's orders, as early as possible. I need not impress on your Government, or on the military authorities, the absolute necessity for reducing the equipment to the lowest possible pitch.

* * * * * * * * *

Dated War Office, London, 2nd March 1878.

From—The Earl of Cadogan, Under Secretary of State for War,

To—The Under Secretary of State for India.

I am directed by Mr. Secretary Hardy to state that his attention has been drawn to the inconvenience that might arise in the event of Indian troops being required at any time to co-operate in the field with British troops, from the want of authorized details of the strength and organization of an Indian brigade or division.

I am to enclose a memorandum which, with a view to the elucidation of this subject, has been drawn up by Captain Collen, First Assistant Military Secretary to the Indian Government, now attached to the Intelligence Branch of this Office. . . . . As an example of the effect of existing arrangements, it is shown in that memorandum that, assuming the organization of a division of that force to be the same as that of an English division, it would, according to the scale adopted in India for single regiments, batteries, &c., require for its field transport as many as—

276 bullocks,
400 ponies,
3,171 followers,
2,090 camels,
308 doolies, and
2,568 bearers,

and these figures would not include the conveyance of rations or supplies.

It appears most desirable that the details of the strength, transport establishment, &c., of cavalry and infantry brigades and divisions of Indian troops should be authoritatively laid down, as has been done for British troops, and it is recommended that the standard to be adopted should be that required for inland operations in India, but that modifications should be prescribed to suit operations in the different countries surrounding India, *viz.*, Afghanistan, Burma, China, and Persia. . . . . .

I am to request that this subject may be brought to the notice of the Secretary of State for India in Council, with a view, should he see no objection, to his giving instructions for the full consideration of the matter by the Indian Government. . . . .

Memorandum on the employment of an Indian Force . . . . its organization and strength, and the information which is required.

* * * * * * * * *

(2.) *The Organization of the Force.*

39. The difficulties of shewing even on paper the components of an Indian division arise from the following reasons :—

i. There is no standing organization laid down in India for a division or brigade, either in respect to its tactical components or its staff and departments.
ii. There is no "war establishment" for corps.
iii. The only scales for camp equipage, baggage, &c., are for inland (*i.e.*, Indian) active operations. The scale of followers is laid down for such operations only.
iv. Commissariat, medical, and transport arrangements are based entirely on the battalion, regiment of cavalry, or battery as a unit, and go no higher.
v. Carriage of small-arm ammunition and its supply in the field is regimental only. Similarly with artillery ammunition.
vi. There is no detail as to ordnance stores and the *personnel* necessary for a field park.
vii. There is no detail laid down for a telegraph train.
viii. There is no detail laid down for a pontoon train.

The necessity for the independent operation of the smaller tactical units in India is the primary cause of all arrangements being based on the regimental system alone.

40. Under these circumstances, it will be best to review briefly the history of the past in regard to the organization of field forces.

I have, therefore, collected the following details from various sources, in order to shew the organization of the most important forces that have assembled, either for inland operations, or for services beyond sea, during the last 50 years or so.

41. The occasions are as follow :—

1. Burmah, 1824.
2. Afghanistan, 1838.
3. First Sikh War, 1845—46.
4. Second ditto, 1849.
5. Burma, 1852—53.
6. Persia, 1856.
7. Indian Mutiny, 1857—58.
8. China, 1860.
9. Abyssinia, 1867—68.
10. Camps of Exercise.

1. *Burmah 1824.*

The force was organized in—

6 Madras brigades, each of 2 or 3 battalions.
1 Bengal brigade=3 battalions.
Artillery was brigaded separately.

2. *Afghanistan War, 1838.*

In the army *first* assembled for service in Afghanistan, the organization was as follows :—

Bengal—
- Cavalry Brigade ... { 1 British regiment. / 2 Native regiments.
- Artillery ... { 2 Troops, Horse Artillery. / 3 Companies, Foot Artillery.
- Sappers and Miners.
- 1st Infantry Division=3 brigades of 3 battalions each.
- 2nd „ „ =2 „ 3 „ „

Bombay—
- Cavalry Brigade ... { 1 British regiment. / 2 Native regiment.
- Brigade of Artillery.
- Brigade of Infantry ... { 2 British battalions. / 1 Native battalion.

3. *First Sikh War, 1845—46.*

Army of the Sutlej—
- Cavalry Division ... { 1 Brigade=4 regiments. / 2 Brigades, each 2 regiments.
- Artillery Division=9 Troops and 11 Companies.
- Engineer Department.
- 1st Infantry Division ... { 1st Brigade=2 battalions. / 2nd „ =3 „
- 2nd Infantry Division (absent) ... { 3rd Brigade. / 4th „
- 3rd Infantry Division ... { 5th Brigade. / 6th „

4. *Second Sikh War, 1849.*

Army of the Punjab—

Artillery Division ... { H. A. Brigade, 6 troops. / F. A. „ 6 companies and park.

Engineer Department.

Cavalry Division ... { 1st Brigade=4 regiments. / 2nd „ =3 „

1st Infantry Division } Each of 2 or 3 brigades, each
2nd „ „ } brigade 2 or 3 battalions.
3rd „ „ }

In the army before Mooltan, December 1848, the division included artillery, engineers, and 2 infantry brigades.

5. *Burmah, 1852-53.*

Bengal Division ... { Artillery. / Sappers. / 2 Troops, cavalry. / 3 Infantry brigades.

Madras Division ... { Artillery, &c. / 2 Infantry brigades.

6. *Persia, 1856.*

1st Division ... { Artillery brigade. / Cavalry brigade=2 native cavalry regiments. / 1st Infantry brigade=1 British and 1 Native regiment. / 2nd „ „ „ „ „

2nd Division: Similar.

7. *Indian Mutiny, 1857-58.*

Delhi—

Artillery force.
Cavalry brigade=4 regiments.
3 Infantry brigades, each of 2 or 3 battalions.
Engineers.
Guide corps.

Relief of Lucknow—

Artillery brigade=3 batteries.
Engineers.
2 Infantry brigades of 3 battalions each.

Army of Oude, 10th February 1858—

Cavalry Division ... { 1st Brigade=3 regiments and detachments. / 2nd Brigade=3 regiments.

Artillery Division ... { Brigade Field Artillery. / „ Siege „

Engineer Brigade=5 companies and corps.
8 Infantry Divisions, each of 2 brigades of 3 battalions each.

Central India Force—

At first 2 brigades of 3 battalions each.

8. *China, 1860.*

Cavalry Brigade ... { 1 British regiment. / 2 Native regiments.

Artillery:
2 Infantry divisions, each of 2 brigades, each brigade 2 or 3 battalions.
Engineers were attached to the Infantry divisions.

9. *Abyssinia, 1867-68.*

For Abyssinia *the Government of India proposed the formation of two divisions, each complete in itself with Artillery, Cavalry, Sappers, and Infantry.*

This was not finally accepted, and in the actual operations the force was organized as follows:—

1st Active Division:
2 Brigades, each comprising cavalry, artillery, and infantry.
2nd Garrison Division:
Garrisons and troops for maintenance of line of communications.

10. *Camps of Exercise.*

In Indian camps of exercise it has sometimes been the practice to mass the cavalry, artillery, and infantry, in separate cavalry, artillery, and infantry divisions, and to combine them only for the days of actual manœuvres.

In the last camp of exercise at Delhi, 1875-76, the troops when formed for manœuvres were organized in 3 divisions, each division as follows:—

1st Division:

1 Artillery Brigade, 3 batteries.
1 Cavalry „ 3 regiments.
1st Infantry „ 1 British battalion.
„ „ „ 2 Native battalions.
2nd Infantry „ 2 „ „

42. From the foregoing summary we may gather the following:—

First.—An infantry brigade in India usually consists of 1 British and 2 Native infantry Battalions.

Secondly.—A cavalry brigade in India usually consists of 1 British and 2 Native cavalry Regiments.

Thirdly.—The practice of combining all arms in a division has frequently been adopted in India, and the organization of the standard English division, as noted below, in its most important elements, may be found in the composition of Indian forces illustrious in the history of war.

43. The English division consists of—

General Staff.
2 Brigades of Infantry of 3 battalions each.
1 Battalion Infantry.
1 Regiment Cavalry.
3 Batteries Field Artillery.
1 Infantry and Artillery Ammunition Reserve.
1 Company Royal Engineers.
1 Troop Military Police.
Veterinary Department.
Chaplain's Department.
Medical Department.
Commissariat ... { Transport. / Supply.
Postal Department.

44. It seems advisable that the composition of the following should be laid down in India by authority:—

1*st.*—Cavalry Brigade.
2*nd.*—Infantry „
3*rd.*—Combined Division.

45. The standard might be fixed for inland operations in India, and it might then be considered what modification would be necessary on such services as,—

(*a*) Operations in Afghanistan.
(*b*) „ „ Burmah.
(*c*) „ „ China.
(*d*) „ „ Egypt.
(*e*) „ „ Persia.

Except with regard to the substitution of mountain for field batteries, in some cases, it will be found that the tactical constitution of a division will not have to be varied so much as might at first sight be supposed.*

46. The advantages of a similar organization, which shall be imperial, and not local, either for India or England, are too obvious to need repetition. In combined operations uniformity of organization becomes an absolute necessity. As there is nothing laid down in India, a division will, in the present paper, be held to be formed similarly to the standard division of the British army. The tabular statement annexed has been prepared from known regulations and data, according to what is laid down for corps and batteries *for active service in India*, as no regulations exist which are applicable to other contingencies.

47. It need hardly be observed that under no conditions can the Indian division be *identical* with the English division. The strength of the tactical units will for the most part be different, while the systems of *supply* and *transport*, the medical arrangements, &c., cannot be alike.

48. The higher organization may, however, be similar, and the formation be made on the basis of the same general principles.

The actual or normal establishment of the various units represented in the army of India is given below:—

Indian Establishments.

Corps.	Officers.		Non-Commissioned Officers	Rank and File.	a Horses	Guns.	Remarks.
	British.	Native					
Regiment, Cavalry—							
British	25	—	42	414	503	—	6 Troops.
Native	7	13	54	390	489	—	„
Battery, R A.—							
British Mountain	5	—	10	84	—	6	With mules and driver establishment. † 2 in reserve.
Native „	3	2	6	66	—	†4	
Horse	5	—	11	146	189	6	
Field	5	—	11	146	117	6	
Heavy	5	—	8	80	10	7	Including mortars, &c.
Garrison	5	—	5	82	—	—	
Company—Sappers	1	2	‡10	110	—	—	‡ Includes 6 British Non-Commissioned Officers.
Battalion—							
British	30	—	49	836	—	—	
Native	7	16	40	656	—	—	

a The detail of horses includes Officers' horses.

* In *Burmah* and *China* coolie transport, in conjunction with pack-transport, would have to be largely employed.

49. There is no "war establishment" laid down. It may, however, be accepted that the normal *peace* strength has been increased on various occasions of war, and that the above figures do not represent the strengths at which the Government of India or the Commander-in-Chief would probably desire that Corps and batteries should enter into a campaign of any importance.

50. As there are no reserves, corps would be brought up to full *established* strength, after deducting those sick and left at Indian depôts, by drafts from other corps, or would in a similar way be brought up to a higher strength than the normal establishment shown in the foregoing table, as might be decided by the government of the day.

51. In the large table annexed the numbers deal only with existing establishments.

52. This table, it will be observed, deals only with a division.

But in the advance of two divisions on * * * * there would be additional cavalry, reserve artillery, siege train, additional engineers, with Engineer park, pontoons, and telegraph equipment, and auxiliary departments.

53. The strength of one division, with staff, departments, and regimental transport, as laid down in the only regulations existing, *viz.*, for internal Indian Service, is given in the table annexed.* The calculations on which the figures are based are given in the Appendices. It is not possible to guarantee the *absolute* accuracy of the figures, because there are some doubtful elements in the question, and which cannot be settled by me.

54. As an example, I may instance that the only officer (European) with a company of native sappers is shown to be one lieutenant. I am not sure if there is a *regulation* on this head, but I think not. At all events, I have not been able to find one. It is, however, given in the Quarter-master-General's memorandum, dated 5th October 1872, and 320 lbs. is the allowance for this officer's mess. I have, therefore, adopted these figures, as I do not think there is any official regulation showing the establishment of a company of sappers.

55. But although the absolute accuracy of the figures cannot be guaranteed, I believe them to be correct enough for all practical purposes, and the calculations in the Appendices will show the method pursued.

56. The division is shown to consist of—

270 Officers.
8,107 Non-commissioned Officers and men (including Medical and Commissariat Departments, European and Native subordinates).
964 horses.
276 bullocks.
400 ponies.
18 guns.
42 waggons.
3,171 public and private followers.
2,090 camels.
308 doolies.
2,568 bearers.

APPENDIX XII.

Tables showing the war establishments of batteries, regiments of cavalry, and infantry, &c., brigades, divisions, and army corps, proposed by the Army Organization Commission.

TABLE I.

Establishment in Officers, Non-Commissioned Officers, and men of the various units which enter into the composition of proposed Indian Brigades, Divisions, and Army Corps.

Detail.	Infantry.		Cavalry.		Artillery.			Sappers Company.
	Regiment of British.	Regiment of Native.	Regiment of British.	Regiment of Native.	Battery Horse.	Battery Field.	Battery Heavy.	
Officers†	30	9	29	11	5	5	5	3
Non-Commissioned Officers and men ...	1,044	912	586	609	157	157	78	107
Total all ranks†	1,074	921	615	620	162	162	83	110

*Table not re-published.

† Note.—Medical officers are excluded, but they would be detailed to corps as follow (see Chapter IX, paragraph 346). two per regiment of British cavalry or infantry, and one to each battery, and Native cavalry or infantry regiment. Veterinary surgeons are also excluded.

TABLE 2.

Detail of Officers composing the Staff of an Infantry Brigade.

Detail.	Number.
Major-General or Brigadier-General	1
Staff Officer	1
Aide-de-Camp	1
Commissariat Officer	1

TABLE 3.

A Brigade of Infantry forming part of a Division.

Detail of Non-Commissioned Officers and men.

Detail.	Officers and men.			Remarks.
	Officers.	Non-Commissioned Officers and men.	Total all ranks.	
Staff	4	...	4	
1 Regiment British Infantry	30	1,044	1,074	
2 Regiments Native Infantry	18	1,824	1,842	
Total ...	52	2,868	2,920	

TABLE 4.

Detail of Officers composing the Staff of a Cavalry Brigade.

Detail.	Number.
Major-General or Brigadier-General	1
Staff Officer	1
Aide-de-Camp	1
Commissariat Officer	1
Veterinary Surgeons	2

TABLE 5.

A Brigade of Cavalry.

Detail of Officers, Non-Commissioned Officers, and men.

Detail.	Officers and men.			Guns.	Remarks.
	Officers.	Non-Commissioned Officers and men.	Total all ranks.		
Staff	6	...	6	...	
1 Regiment British Cavalry	29	586	615	...	
2 Regiments Native Cavalry	22	1,218	1,240	...	
1 Battery Royal Horse Artillery ...	5	157	162	6	
Total ...	62	1,961	2,023	6	

TABLE 6.

Detail of Officers composing the Staff of a Brigade of all arms.

Detail.	Number.
Major-General or Brigadier-General	1
Aide-de-Camp	1
Staff Officers	2
Lieutenant-Colonel Commanding Artillery	1
Adjutant	1
Commissariat Officers	2
Principal Medical Officer	1
TOTAL ...	9

TABLE 7.

A BRIGADE OF ALL ARMS.

Detail of Officers, Non-Commissioned Officers, Men, and Guns.

DETAIL.	OFFICERS AND MEN.			Guns.	REMARKS.
	Officers.	Non-Commissioned Officers and men.	Total all ranks.		
STAFF	9	...	9	...	
INFANTRY { One Regiment British Infantry	30	1,044	1,074	...	
INFANTRY { Two Regiments Native Infantry	18	1,824	1,842	...	
CAVALRY—One Native Regiment ...	11	609	620	...	
ARTILLERY—Two Field Batteries .	10	314	324	12	
SAPPERS—One Company	3	107	110	...	
TOTAL ...	81	3,898	3,979	12	

TABLE 8.

Detail of Officers composing the Staff of a Division.

Detail.	Number.
Major-General	1
Aide-de-Camp	1
Staff Officers	2
Lieutenant-Colonel, R.A.	1
Adjutant, R.A.	1
Lieutenant-Colonel, R.E.	1
Adjutant, R.E.	1
Assistant Provost Marshal	1
Veterinary Surgeon	...
Commissariat Officers	2
Principal Medical Officer	1

TABLE 9.

A Division.

Detail of Officers, Non-Commissioned Officers, Men, and Guns.

Detail.	Officers and men.			Guns.	Remarks.
	Officers.	Non-Commissioned Officers and men.	Total all ranks.		
Staff	12	...	12	...	
Infantry { Two Brigades Infantry ...	104	5,736	5,840	...	
Infantry { One Regiment Pioneers ...	9	912	921	...	
Cavalry—Two Native Regiments ...	22	1,218	1,240	...	
Artillery { One Battery Royal Horse Artillery	5	157	162	6	
Artillery { Three Batteries Royal Artillery ...	15	471	486	18	
Sappers—Two Companies	6	214	220	...	
Total ...	173	8,708	8,881	24	

TABLE 10.

Detail of Officers composing the staff of an Army Corps.

Detail.	Number.
General Commanding	1
Aides-de-Camp	3
Chief of the Staff	1
Staff Officers	3
Officer Commanding Royal Artillery	1
Staff Officer, Royal Artillery	1
Aides-de-Camp, Royal Artillery	1
Officer Commanding Royal Engineers	1
Staff Officer, Royal Engineers	1
Aides-de-Camp, Royal Engineers	1
Provost Marshal	1
Commissariat Officers	2
Ordnance Officers	2
Principal Medical Officer	1
Total ...	20

TABLE 11.

Detail of Officers composing the Staff of Corps Artillery.

Detail.	Number.
Colonel Commanding Corps Artillery and Ammunition Reserves	1
Adjutant	1
Lieutenant-Colonel Commanding Corps Artillery Batteries	1
Adjutant	1
Total ...	4

TABLE 12.

CORPS ARTILLERY FORMING PART OF AN ARMY CORPS.

Detail of Officers, Non-Commissioned Officers, Men, and Guns.

DETAIL.	ARMY CORPS OF TWO DIVISIONS.					ARMY CORPS OF THREE DIVISIONS.				
	Number of batteries.	OFFICERS AND MEN. Officers.	Non-Commissioned Officers and men.	Total all ranks.	Guns.	Number of batteries.	OFFICERS AND MEN. Officers.	Non-Commissioned Officers and men.	Total all ranks.	Guns.
Artillery staff ...	...	4	...	4	...	...	4	...	4	...
Royal Horse Artillery	2	10	314	324	12	3	15	471	486	18
Heavy Field Battery	1	5	78	83	6	1	5	78	83	6
TOTAL ...	3	19	392	411	18	4	24	549	573	24

TABLE 13.

AN ARMY CORPS OF TWO DIVISIONS.

Detail of Officers, Non-Commissioned Officers, Men and Guns.

DETAIL.	OFFICERS AND MEN. Officers.	Non-Commissioned Officers and men.	Total all ranks.	Guns.	REMARKS.
Staff	20	...	20	...	
Two Divisions*	308	15,670	15,978	36	
Cavalry Brigade	80	1,938	2,018	6	
Corps Artillery*	19	392	411	18	This gives six companies of Sappers for an Army Corps, and there are also two pioneer regiments.
Corps Engineers*	12	428	440	...	
TOTAL ..	439	18,428	18,867	60	

* When divisions are united to form army corps, then only one Native cavalry regiment will remain with each division, the other two regiments forming, with one British regiment, the cavalry brigade, the two batteries royal horse artillery and one heavy battery forming the corps artillery. Similarly, one company of Sappers will remain with each division, and the remaining two will go to the Corps Engineers.

TABLE 14.

AN ARMY CORPS OF THREE DIVISIONS.

Detail of Officers, Non-Commissioned Officers, Men, and Guns.

DETAIL.	OFFICERS AND MEN. Officers.	Non-Commissioned Officers and men.	Total all ranks.	Guns.	REMARKS.
Staff	20	...	20	...	
Three Divisions	462	23,505	23,967	54	
Cavalry Division of two Brigades ...	130	3,922	4,052	12	
Corps Artillery	24	549	573	24	
Corps Engineers	15	535	550	...	
TOTAL ...	651	28,511	29,162	90	

APPENDIX XIII.

Memorandum on Army Organization, by Major-General Sir H. Tombs, V.C. K.C.B.

In putting forward a scheme for the formation of territorial armies for the five provinces of British India, now administered by Governors or Lieutenant-Governors, I pretend to no originality.

2. The scheme embraces the abolition of all local forces, and a consequent considerable reduction in the Native army (or at least the infantry portion of that army). I say "consequent," because I have long been of opinion that the retention of "local" troops has been one great bar to such reduction.

3. I am of opinion that the duties of many of these local troops might well be performed by the police, whilst the effect of having all troops under one code of discipline, and under one commander-in-chief, will make them more efficient in every way, and therefore authorise reduced numbers.

4. The scheme also involves some reductions in the staff, with a corresponding reduction in the cost of the army, without, I believe, impairing in any way its efficiency. I advocate the appointment of a colonel on the staff, Royal Engineers, and a brigade-major, Royal Engineers, for each *corps d'armée*; the former would act as Chief Engineer to the Lieutenant-General, and would be responsible for the allotment and expenditure of the budget sum allowed for military works in each province. I have not gone into the cost of the new appointment, because I am not sufficiently versed in the Department Public Works to be able to state what corresponding reduction in the present staff of Chief and Superintending Engineers would be possible. My scheme would, however, involve that the construction of all military works should be in the hands of the Royal Engineer.

5. The formation of five large *corps d'armée* will give, or ought to give, the Government the services of trained officers of high rank, who have been accustomed to rely on themselves during peace, and will therefore be self-reliant in war. The present system of centralization, teaching, as it does, general officers to refer even matters of comparatively small importance to army head-quarters instead of acting on their own judgment, does not tend to make them self-reliant.

6. A very large item of expense would be cut down by reliefs only taking place within territorial limits, and I am not prepared to say that this should not be carried out with British troops also, who would become more acclimatized than they now do, by being moved from one end of India to another. As each army corps has hill sanitaria within its territory, there would appear to be no reason why the above system of relief should not be carried out.

7. My impression is that, as soon as the system came into working order, there would be five armies, each of which would, in its native element, be nearly homogenous, and that in the event of mutiny, one of these armies could be safely pitted against another; whilst, when serving in the field against a common foe, a spirit of emulation and rivalry would arise between them from which great things might be expected.

Proposed Staff.

Of the Commander-in-Chief.

1 Military Secretary.
1 Interpreter.
3 Aides-de-Camp.
1 Major General Chief of the Staff.
1 Deputy Adjutant General.
1 Deputy Adjutant General, Royal Artillery.
1 Deputy Adjutant General for Musketry.
1 Assistant Adjutant General.
1 Deputy Quartermaster General.
1 Assistant Quartermaster General.
1 Judge Advocate General.

Of a Major General.

1 Assistant Adjutant General.
1 Assistant Quartermaster General.
1 Aide-de-Camp.

Of a Lieutenant-General.

1 Military Secretary and Aide-de-Camp.
1 Interpreter and Aide-de-Camp.
1 Deputy Adjutant General.
1 Assistant Adjutant General.
2 Deputy Assistant Adjutant Generals for Musketry.
1 Deputy Quartermaster General.
1 Assistant Quartermaster General.
1 Deputy Judge Advocate.
1 Colonel on Staff, Royal Artillery.*
1 Brigade Major, Royal Artillery.
1 Colonel on Staff, Royal Engineers.
1 Brigade Major, Royal Engineers.

Of a Brigadier General.

1 Brigade Major.
1 Deputy Assistant Quartermaster General.

* Who would perform the duty of Inspector General in the *corps d'armée*.

Staff in India.

Present.	No.	Proposed.	No.
Commander-in-Chief in India ...	1	Commander-in-Chief in India ...	1
Military Secretary to Commander-in-Chief	1	Military Secretary to Commander-in-Chief	1
Interpreter to Commander-in-Chief ...	1	Interpreter to Commander-in-Chief ...	1
Aides-de-Camp to Commander-in-Chief ..	3	Aides-de-Camp to Commander-in-Chief	3
Adjutant General	1	Major General Chief of the Staff ...	1
Deputy Adjutant General	1	Deputy Adjutant General ...	1
Deputy Adjutant General, Royal Artillery	1	Deputy Adjtant General, Royal Artillery	1
Assistant Adjutant Generals	2	Deputy Adjutant General for Musketry	1
Assistant Adjutant General for Musketry	1	Assistant Adjutant General ...	1
Deputy Assistant Adjutant General ...	1	Deputy Quartermaster General ...	1
Quartermaster General	1	Assistant Quartermaster General ...	1
Deputy Quartermaster General ...	1	Judge Advocate General ...	1
Assistant Quartermaster General ...	1	Lieutenant-Generals	5
Judge Advocate General	1	Military Secretaries and Aides-de-Camp	5
Deputy Judge Advocate General ...	1	Interpreters and Aides-de-Camp ...	5
Inspector General, Royal Artillery ...	1	Deputy Adjutant Generals	5
Brigade Major, Royal Artillery ...	1	Assistant Adjutant Generals ...	5
Commander-in-Chief, Madras ...	1	Deputy Assistant Adjutant Generals for Musketry	10
Military Secretary to Commander-in-Chief	1	Deputy Quartermaster Generals ...	5
Aides-de-Camp to Commander-in-Chief ...	2	Assistant Quartermaster Generals ...	5
Commander-in-Chief, Bombay ...	1	Deputy Judge Advocates	5
Military Secretary to Commander-in-Chief	1	Colonels on Staff, Royal Artillery ...	5
Aides-de-Camp to Commander-in-Chief ...	2	Brigade Majors, Royal Artillery ...	5
Adjutant Generals, Madras and Bombay ...	2	Colonels on Staff, Royal Engineers ...	5
Deputy Adjutant Generals, Madras and Bombay	2	Brigade Majors, Royal Engineers ...	5
Assistant Adjutant Generals, Madras and Bombay	2	Major Generals	12
Assistant Adjutant Generals, Royal Artillery, Madras and Bombay ...	2	Assistant Adjutant Generals ...	12
Quartermaster Generals, Madras and Bombay	2	Assistant Quartermaster Generals ...	12
Deputy Quartermaster Generals, Madras and Bombay	2	Aides-de-Camp	12
Judge Advocate Generals, Madras and Bombay	2	Brigadier Generals	17
Major Generals	12	Brigade Majors	17
Brigadier Generals, 1st class	14	Deputy Assistant Quartermaster Generals	17
Brigadier Generals, 2nd class ...	10		
Assistant Adjutant Generals	14		
Assistant Quartermaster Generals ...	10		
Deputy Assistant Adjutant Generals for Musketry.	11		
Deputy Assistant Quartermaster Generals	17		
Deputy Judge Advocates	18		
Brigade Majors	32		
Aides-de-Camp	12		
TOTAL ...	192	TOTAL ...	183

Cost of Present Staff.

	Per mensem.
	Rs.
Commander-in-Chief in India	8,333
Military Secretary, Rs. 1,500—Interpreter, Rs. 450	1,950
3 Aides-de-Camp, at Rs. 250	750
Adjutant General	3,000
Deputy Adjutant General	1,000
Deputy Adjutant General, Royal Artillery	800
2 Assistant Adjutant Generals	1,100
1 Assistant Adjutant General for Musketry	500
Deputy Adjutant General	500
Quartermaster General	2,500
Deputy Quartermaster General	1,000
1st Assistant Quartermaster General	600
Judge Advocate General	2,400
Deputy Judge Advocate General	800
Inspector General, Royal Artillery	2,300
Brigade Major Do.	354
2 Colonels Commanding Royal Horse Artillery Brigades, at Rs. 1,358 11 Colonels Commanding Royal Artillery Brigades, at Rs. 1,002 — exclusive of command pay which will be drawn by Lieut.-Colonels.	13,738
Commander-in-Chief, Madras	5,833
Military Secretary	1,000
2 Aides-de-Camp, 1 at Rs. 380, and 1 at Rs. 250	630
Commander-in-Chief, Bombay	5,833
Military Secretary and 2 Aides-de-Camp	1,630
2 Adjutant Generals, Madras and Bombay, at Rs. 2,200	4,400
2 Deputy Adjutant Generals, Madras and Bombay, at Rs. 800	1,600
2 Assistant Adjutant Generals, Madras and Bombay, at Rs. 600	1,200
2 Assistant Adjutant Generals, Royal Artillery, Madras and Bombay, at Rs. 500 ...	1,000
2 Quartermaster Generals, Madras and Bombay, 1 at Rs. 2,200 and 1 at Rs. 2,000 ...	4,200
2 Deputy Quartermaster Generals, Madras and Bombay, at Rs. 800	1,600
2 Judge Advocate Generals, Madras and Bombay, at Rs. 2,000	4,000
12 Major Generals, at Rs. 3,500	42,000
14 Brigadier Generals, 1st class, at Rs. 1,400	19,600
10 Brigadier Generals, 2nd class, at Rs. 1,200	12,000
14 Assistant Adjutant Generals, at Rs. 500	7,000
10 Assistant Quartermaster Generals, at Rs. 500	5,000
11 Deputy Assistant Adjutant Generals for Musketry, at Rs. 500	5,500
17 Deputy Assistant Quartermaster Generals, at Rs. 400	6,800
18 Deputy Judge Advocates, at Rs. 500	9,000
32 Brigade Majors, at Rs. 400	12,800
12 Aides-de-Camp, at Rs. 250	3,000
	1,97,251
Deduct	1,70,683
Saving per mensem ...	26,568
	12
Saving per annum ...	3,18,816

Cost of Proposed Staff.

	Per mensem.
	Rs.
Commander-in-Chief in India	8,333
Military Secretary at Rs. 1,500—Interpreter at Rs. 450	1,950
3 Aides-de-Camp, at Rs. 250	750
1 Major-General Chief of the Staff...	3,500
Deputy Adjutant General	1,500
Deputy Adjutant General, Royal Artillery	800
Deputy Adjutant General, Musketry	600
Assistant Adjutant General	800
Deputy Quartermaster General	1,500
Assistant Quartermaster General	800
Judge Advocate General	2,400
5 Lieutenant-Generals, at Rs. 4,500	22,500
5 Military Secretaries and Aides-de-Camp, at Rs. 500	2,500
5 Interpreters and Aides-de-Camp, at Rs. 350	1,750
5 Deputy Adjutant Generals, at Rs. 800	4,000
5 Assistant Adjutant Generals, at Rs. 600	3,000
10 Deputy Assistant Adjutant Generals for Musketry, at Rs. 500	5,000
5 Deputy Quartermaster Generals, at Rs. 800	4,000
5 Assistant Quartermaster Generals, at Rs. 600	3,000
5 Deputy Judge Advocates, at Rs. 800	4,000
*5 Colonels on Staff, Royal Artillery, at Rs. 2,200	11,000
5 Brigade Majors, Royal Artillery, at Rs. 400	2,000
12 Major Generals, at Rs. 3,000	36,000
12 Assistant Adjutant Generals, at Rs. 500	6,000
12 Aides-de-Camp, at Rs. 250	3,000
12 Assistant Quartermaster Generals, at Rs. 500	6,000
17 Brigadier Generals, at Rs. 1,200	20,400
17 Brigade Majors, at Rs. 400	6,800
17 Deputy Assistant Quartermaster Generals, at Rs. 400	6,800
TOTAL	1,70,683

* *N. B.*—These will be the only Colonels, Royal Artillery, in India, as it is proposed that Lieutenant-Colonels shall command Royal Artillery brigades.

Statement shewing approximately the difference in cost of the Present and Proposed Army in India.—See "Abstract" at end.

	Rs.	Rs.
Cost of Decrease.		
2 Garrison Batteries, at Rs. 95,494	1,90,988	
6 Native Field Batteries, at Rs. 63,499	3,80,994	
1 Native Cavalry Regiment	2,58,929	
18 Native Infantry Regiments, at Rs. 1,80,260	32,44,680	
3 Native Garrison Artillery Companies, at Rs.20,416	61,248	
		41,36,839
Cost of Increase.		
4 European Field Batteries, at Rs. 1,86,803	7,47,212	
1 European Mountain Battery	1,54,696	
1 European Cavalry Regiment	5,79,856	
1 European Infantry Regiment	6,79,325	
½ Native Mountain Battery, at Rs. 65,861	32,930	
		21,94,019
Gain		19,42,820
Gain on Staff as per Statement "A" attached		3,18,816
Total Gain per annum		22,61,636

1st ARMY, BENGAL.

Consisting of British Burma and as far north as Chittagong, Presidency, Fort William, Assam, and North-Eastern Frontier up to Raptee River on the west, including Goruckpore, Tirhoot, Benares, Dinapore, Chota Nagpore, Cuttack.

Lieutenant-General Commanding (at Presidency).

		British.						Native.			
		H. A	F. B.	M. B.	G. B.	Cav.	Infy.	M. B.	Cav.	Infy.	Sapper Comps.
Fort William ... ... Barrackpore ... ... Bhaugulpore ... ... Midnapore ... ... Cuttack	Brigadier General Commanding at Presidency.	...	2	...	1	...	2	...	½	7	...
North-Eastern Frontier ... Shillong .. .. Assam ... ... Sylhet ... ... Cachar ... ... Darjeeling	Brigadier General Commanding at Shillong.	...	...	1	..	...	½	1	...	6	1
Dinapore ... ... Benares (Rajghat) ... Goruckpore ... ... Mozuffernuggur (Tirhoot) ... Segowlee ... ... Hazareebagh ... ... Dorundah	Brigadier General Commanding at new Cantonment on the Soane River near Arrah.	...	1	...	1	...	1½	...	1½	3	...
Burma and to the north as far as Chittagong.	Major General Commanding at Rangoon.	...	2	...	2	...	2	...	...	4	1
		...	5	1	4	...	6	1	2	20	2

Alterations in present dispositions proposed:—

Divide the regiment at Hazareebagh between that place and Darjeeling.

Remove the regiment of Native cavalry now at Segowlee to Goruckpore with detachment at Segowlee.

Remove the present cantonment now at Dinapore to a site on the Soane River near Arrah, where quarter a force of—

1 British Infantry Regiment, 1 Field Battery, 1½ Regiment Native Infantry, Wing of Native Cavalry; quarter a Wing Native Infantry at Mozuffernuggur, Tirhoot, with a Wing of Native Cavalry. Abolish the present cantonment at Benares, and hold the fortified position of "Rajghat" with 2 Companies British Infantry, 2 Companies Native Infantry, from Dinapore, and a Garrison Battery with 6 or 8 Rifled guns.

Destroy Chunar Fort.

2ND ARMY, N.-W. P.

Consisting of Allahabad, Saugor and Nerbudda Territories, Cawnpore, Oudh and Rohilkund, Meerut and Sirhind Divisions.

LIEUTENANT-GENERAL COMMANDING (AT MEERUT).

		BRITISH.						NATIVE.			
		H. A	F. B	M. B.	G. B.	Cav.	Infy	M. B.	Cav	Infy	Sapper Comps.
Allahabad ... ... Jubbulpore ... ... Cawnpore ... .. Nowgong ... ... Saugor	Major General Commanding, Head Quarters, Allahabad.	...	4	...	1	...	3	...	4	5	1
OUDH DIVISION. Bareilly ... Nynee Tal ... Raneekhet ...	Brigadier General Commanding Rohilkhund District, Head Quarters, Bareilly. — Major General Commanding, Head Quarters, Lucknow.	1	4	...	1	1	6	...	3	6	...
Meerut ... ... Muttra ... ... Delhi ... ... Chuckrata ... ... Roorkee ... ... Agra, Brigadier General Commanding.	Major General Commanding, Head Quarters, Meerut.	2	2	..	2	2	4	..	1	4	3
Umballa ... ... Jutogh ... ... Kussowli ... ... Dugshaie ... ... Subathoo, &c. ...	Major General Commanding, Head Quarters, Umballa.	2	...	1	...	1	3	...	1	2	1
		5	10	1	4	4	16	..	9	17	5

The disposition of the troops is little altered from that now existing.

3RD ARMY, PUNJAB AND SCINDE.

Consists of the Lahore and Rawal Pindee Divisions, Peshawar District, and the whole trans-Indus Frontier down to Kurrachee.

LIEUTENANT-GENERAL COMMANDING (AT RAWAL PINDEE).

		BRITISH.						NATIVE.			
		H. A	F. B	M. B	G. B.	Cav	Infy	M. B	Cav.	Infy.	Sapper Comps.
Lahore, Ferozepore, Jullunder, Govindghur, Mooltan — Brigadier General Commanding. Sealkote — Brigader General Commanding.	Major General Commanding, Head Quarters, Meean Meer.	2	4	...	3	1	5	...	3	7	1
Rawal Pindee, Campbellpore, Abbottabad, Attock, Jhelum, Murree	Brigadier General Commanding, Head Quarters, Rawal Pindee	2	1	1	1	1	2	...	2	6	2
Peshawar, Hoti Murdan, Nowshera	Major General Commanding, Head Quarters, Peshawar.	1	2	...	1	...	3	...	4	6	1
Trans-Indus and Scinde, Kohat, Jacobabad, Dera Ismael Khan, Kurrachee — Brigadier General Commanding at Kurrachee.	Major General Commanding Derajat, Head Quarters at Dera Ismael Khan.	.	4	...	2	...	2	2	7	11	1
		5	11	1	7	2	12	2	16	30	5

An additional British Infantry regiment is proposed to be located trans-Indus at Dera Ismael Khan, and a reduction of 1 Native Cavalry regiment; also an increase of 1 Native Mountain battery at Jacobabad.

4TH ARMY, MADRAS.

Consisting of Travancore, Trichinopoly, Arcot, Mysore, Nizam's Dominions, and the Berars.

LIEUTENANT-GENERAL COMMANDING (AT BANGALORE).

	British.						Native.			
	H. A.	F. B.	M. B.	G. B.	Cav.	Infy	M. B	Cav.	Infy.	Sapper Compe
Bangalore ... Mysore ... } Major General Commanding ...	1	2	...	...	1	2	...	1	4	2
Major General Commanding Secunderabad ... Brigadier General Commanding Hyderabad ... }	1	4	...	1	1	3	...	4	8	3
Madras ... Trichinopoly ... Cannanore ... Malabar ... } Brigadier General Commanding Southern District.	...	3	...	3	...	1	...	..	10	1
Kamptee ... Nagpore ... } Brigadier General Commanding Northern District.	...	2	...	...	...	1	...	1	7	1
Brigadier General Commanding Ceded Districts, Head Quarters, Bellary.	...	1	...	...	...	1	...	1	2	...
	2	12	...	4	2	8	...	7	31	7

A reduction of one Native Cavalry regiment.

5TH ARMY, BOMBAY.

Comprising Aden, Poona, Ahmedabad and Mhow Divisions, Rajpootana, and Gwalior.

LIEUTENANT-GENERAL COMMANDING (AT POONA).

	British.						Native.			
	H. A.	F. B	M. B.	G. B.	Cav.	Infy.	M. B.	Cav.	Infy.	Sappers.
Mhow Division—Major General Commanding ...	1	2	...	1	1	2	...	2	5	1
Ahmedabad Division—Major General Commanding ...	...	2	...	...	...	2	...	1	5	1
Brigadier General Commanding at Aden ...	...	...	...	1	...	½	1	...	1	1
Brigadier General Commanding Gwalior District ...	1	2	...	1	...	2	...	1	2	1
Brigadier General Commanding Rajpootana ...	...	...	...	...	...	...	...	2	5	...
Poona District ... Bombay ... } Brigadier General Commanding {	1	3	...	...	1	2	...	2	6	2
	...	...	...	2	...	½	...	...	3	...
	3	9	...	5	2	9	1	8	27	6

An extra regiment of British Cavalry is recommended for this army, to be quartered where it is much needed,—in Rajpootana.

ABSTRACT.

	British.						Native.					
	H. A	F. B.	M. B.	G. B.	Cav.	Infy.	F. B.	M. B.	Cav.	Infy.	Sapper Comps.	Garrison Arty. Comps.
1st Army	...	5	1	4	...	6	...	1	2	20	2	...
2nd do.	5	10	1	4	4	16	...	...	9	17	5	...
3rd do.	5	11	1	7	2	12	. .	2	16	30	5	...
4th do.	2	12	...	4	2	8	...	...	7	31	7	...
5th do.	3	9	...	5	2	9	...	1	8	27	6	...
	15	47	3	24	10	51	...	4	42	125	25	...
Old Establishment	15	43	2	26	9	50	6	3½	43	143	25	3
New Establishment { Increase ...	...	4	1	...	1	1	...	½	...	. .	...	...
New Establishment { Decrease ...	...	...	...	2	...	...	6	..	1	18	...	3

H. A. Batteries	Remain as formerly.
Artillery Brigade Head Quarters	Ditto ditto.
Field Batteries	6 Native reduced, 4 European raised,—total guns the same.
Mountain Batteries	1 European raised, and the 1st Division of N. M. Artillery in Bombay Presidency completed to a full battery for service at Aden.
Garrison Batteries	Reduced by 2 and 3 Native Artillery Companies.
British Cavalry	Is increased by 1 regiment quartered in Rajpootana, where, in my opinion, we are very weak in cavalry.
British Infantry	Is increased by 1 regiment to be stationed at Dera Ismail Khan.
Native Cavalry	Decreased by 1 regiment.
Sappers	Remain as formerly.
Native Infantry	Reduced by 18 regiments.

APPENDIX XIV.

Statements showing the Cost of the Higher Army Administration in India.*

* *Note.*—This statement is intended to afford a comparison between the cost of the higher administrative machinery in India and that at the War Office in England, or in other armies. Only the administrative officers at the head-quarters of the Armies and Governments have been shewn. The difficulties in compiling this table have been considerable, and it must be noted that the total cost does not tally with that given at paragraph 116 of the report, in consequence of the numbers and cost of establishment for certain offices having first been included, but excluded at the final revision. The number of officers employed is 143 instead of 145, and the cost £478,395 instead of £494,498.

GOVERNMENT OF INDIA.

Departments.	Officers.		Clerks.		Servants †		Extra and travelling allowances, office rent, contingent expenses, and postage charges, &c	Totals.	Grand Totals.
	Numbers.	Cost.	Numbers.	Cost.	Numbers	Cost.			
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Military Member of Council	1	79,992							79,992
Military Department	5	99,490	70	1,51,100	81	8,400	36,220	2,95,210	
Accounts Branch of Military Department.	2	35,200	21	49,404	20	1,432	27,050	1,13,086	
									4,08,296
Commissariat Department	3	50,435	52	57,612	24	1,800	17,750	..	1,27,597
Ordnance ,, ...	3	59,801	30	39,012	11	924	11,690		1,11,427
British Medical ,, ...	3	61,800	15	25,716‡	13	1,002	8,394		96,912
Indian ,, ,, ...	2	48,000	16	19,764	8	612	6,102	..	74,478
Office of Controller of Military Accounts	2	42,000	27	52,824	19	2,220	2,700	99,744	
Accounts Branch of Office of Controller of Military Accounts.	1	7,989	48	65,196	15	1,260	2,020	76,465	
Pay Department	2	29,880	93	1,05,168	26	2,472	3,650	1,41,170	
Examiner of Commissariat and Remount Accounts	1	22,235	92	94,356	14	1,128	10,581	1,28,300	
Examiner of Medical Accounts	1	16,965	20	19,572	4	312	2,785	39,634	
,, of Ordnance and Clothing Accounts.	1	11,989	62	55,956	15	1,188	3,015	72,148	
Examiner of Fund Accounts ...	2	12,600	21	10,234	7	588	736	24,158	
									5,81,619
Carried over ...	29	5,78,376	567	7,45,914	257	23,338	1,32,693	...	14,80,321

† Servants connected with the offices, messengers, &c.

‡ British Medical Department ... ... Rs. 22,116
One Apothecary 3,600
Total ... 25,716.

GOVERNMENT OF INDIA.—(*contd.*)

Departments.	Officers		Clerks.		Servants.		Extra and travelling allowances, office rent, contingent expenses, and postage charges, &c	Totals.	Grand totals.
	Numbers	Cost.	Numbers.	Cost.	Numbers.	Cost.			
		Rs.		Rs.		Rs.	Rs.	Rs.	Rs.
Brought forward	29	5,78,376	567	7,45,914	257	23,338	1,32,693	...	14,80,321
Superintendent of Army Clothing	1	23,435	12	15,612	6	504	2,400	...	41,951
Director of Army Remount Operations	1	21,935	3	5,400	7	492	3,260	...	31,087
General Superintendent of Horse Breeding Operations.	1	16,519	...	.	...	...	...	...	16,519
	32	6,40,265	582	7,66,926	270	24,334	1,38,353	.	15,69,878
Military Secretary and Aides-de-Camp to His Excellency the Viceroy.	6	54,956	5	7,752	1	156	1,440	...	64,304
Punjab Military Department ...	1	18,335	8	13,680	16	1,272	3,713	...	37,000
Total ...	39	7,13,556	595	7,88,358	287	25,762	1,43,506	...	16,71,182
Army Head-Quarters.									
Commander-in-Chief in India, his Aides-de-Camp and Military Secretary, and the office of the latter.	10	1,79,627	7	14,040	12	1,284	39,900	2,34,851	
Adjutant General's Department ..	5	94,890	42	1,00,200	38	3,156	33,328	2,31,574	
Deputy Adjutant General for Royal Artillery in India.	2	31,437	11	19,260	8	540	7,000	58,237	
Quarter Master General's Department .	3	61,905	32	65,880	31	2,268	45,527	1,75,580	
Intelligence Branch of Quarter Master General's Department.	3	...	...	. .	...	...	...	24,349	
Inspector General of Artillery in India	2	37,282	.	...	...	...	5,680	42,962	
Judge Advocate General's Department	2	48,335	11	16,500	9	613	3,415	68,863	
Principal Veterinary Surgeon ...	1	13,854	1	864	...	. .	4,880	19,598	
Director of Garrison Instruction ..	1	13,690	...	...	..	...	2,880	16,570	
Inspector of Gymnasia ..	1	13,690	2	2,292	8	432	5,842	22,256	
Superintendent of British Army Schools	2	13,280	1	1,200	...	...	7,360	21,840	
Do. of Native do. ...	1	10,579	...	. .	...	...	2,240	12,819	
									9,29,499
Total ...	33	5,18,569	107	2,20,236	106	8,293	1,58,052		
Grand Total ...	72	12,32,125	702	10,08,594	393	34,055	3,01,558		26,00,681

GOVERNMENT OF MADRAS.

Military Department	1	30,000	17	28,320	20	2,172	3,968		64,460
Commissariat Department	2	48,635	23	20,340	12	1,062	950		70,987
Ordnance Department	2	45,987	24	18,900	13	1,068	1,750		67,705
British Medical Department	2	40,800	12	5,280	7	551	1,398		48,029
Indian ,, ,, ...	2	48,300	13	7,140	8	648	1,432		57,520
Controller of Military Accounts ...	1	26,400	15	16,886	6	534	800	44,620	
Accounts Branch of Controller of Military Accounts' Office.	1	6,309	42	32,831	8	666	1,175	40,981	
Pay Department.	2	27,035	53	39,882	17	1,710	5,020	73,647	
Examiner of Commissariat, Clothing and Remount Accounts.	1	21,035	55	41,688	12	1,194	800	64,717	
Examiner of Medical Accounts	1	16,527	13	8,414	4	264	310	25,515	
,, of Ordnance and Barrack Accounts.	1	11,891	30	25,323	9	792	300	38,306	
Examiner of Fund Accounts	1	1,800	16	11,040	7	636	280	13,756	
Pension Pay Office	1	15,935	25	8,532	8	624	1,953	27,044	
									3,28,586
Remount Agent	2	27,457	20*	12,993		26,418	1,040		67,908
Superintendent of Army Clothing ...	1	19,835	21	13,800	7	720	1,100		35,455
Total .	21	3,87,946	379	2,91,369	138	39,059	22,276	...	7,40,650
Army Head-Quarters.									
Commander-in-Chief, Madras Army, his Aides-de-Camp and Military Secretary, and office of the latter.	5	1,05,019	2	1,800	2	162	6,500	1,13,481	
Adjutant General's Department	3	64,098	22	23,640	6	666	6,562	94,966	
Assistant Adjutant General, Royal Artillery.	1	18,387	9	5,922	...	...	3,478	27,787	
Quarter Master General's Department	2	44,891	20	16,146	5	528	6,027	67,592	
Judge Advocate General's ,, ...	1	24,000	4	3,720	3	246	1,664	29,630	
Inspecting Veterinary Surgeon ...	1	16,373	.	...	...	...	1,820	18,193	
Chief Garrison Instructor	1	1,141	...	...	..	...	335	1,476	
Superintendent, Army Schools ...	1	10,090	...	...	...	..	5,140	15,230	
Total	15	2,83,999	57	51,228	16	1,602	31,526		3,68,355
Grand Total ...	36	6,71,945	436	3,42,597	154	40,661	53,802		11,09,005

* Includes Warrant and Non-Commissioned Staff.

GOVERNMENT OF BOMBAY.

Departments.	Officers.		Clerks.		Servants.		Extra and travelling allowances, office rent, contingent expenses, and postage charges, &c.	Totals.	Grand Totals
	Numbers	Cost.	Numbers.	Cost.	Numbers.	Cost.			
		Rs.		Rs.		Rs	Rs.	Rs.	Rs.
Military Department ..	2	39,000	26	28,700	15	2,100	12,200		82,000
Commissariat Department	2	48,635	19	22,884	6	540	3,710		75,769
Ordnance Department ...	2	43,784	15	17,280	5	444	2,000		68,508
British Medical Department ...	2	40,800	8	6,720	2	168	882		48,570
Indian ,, ,, ...	2	45,600	8	8,160	7	516	800		55,076
Office of the Controller of Military Accounts.	1	24,167	14	23,400	20	1,848	2,103	51,518	
Accounts Branch of Office of the Controller of Military Accounts.	1	9,289	39	36,840	4	348	2,525	49,002	
Pay Department	2	18,889	38	46,860	5	408	2,578	68,735	
Examiner of Commissariat, Barrack, Clothing, and Remount Accounts	1	14,891	46	49,776	5	432	1,415	66,514	
Examiner of Medical Accounts ...	1	12,929	15	11,184	2	168	449	24,730	
,, ,, Ordnance ,, ...	1	5,409	32	30,672	3	240	962	37,283	
,, ,, Fund ,, ...	1	1,800	10	7,620	3	264	445	10,129	
									3,07,911
Superintendent of Army Clothing ...	1	19,835	13	10,308	5	552	500		31,195
Total ...	19	3,30,028	283	3,00,404	82	8,028	30,569		6,69,029
Army Head-Quarters									
Commander-in-Chief, Bombay Army, his Aides-de-Camp and Military Secretary, and the office of latter	6	97,275	2	2,280	5	400	14,681	1,14,636	
Adjutant General's Department ...	3	61,367	24	32,340	12	948	9,225	1,03,880	
Assistant Adjutant General of Royal Artillery.	1	18,027	Establishment included with Adjutant General's Department.					18,027	
Quarter Master General's Department	2	43,691	32	34,680	15	1,338	17,580	97,289	
Judge Advocate General's Department	1	24,000	3	2,160	4	336	959	27,455	
Inspecting Veterinary Surgeon	1	16,519	..	...	...	...	2,820	19,339	
Chief Garrison Instructor	1	9,289	.	...	...	...	856	10,145	
Superintendent, Army Schools	1	10,200	...	..	...	...	4,278	14,478	
Total ...	16	2,80,368	61	71,460	36	3,022	50,399		4,05,249
Grand Total ...	35	6,10,396	344	3,71,864	118	11,050	80,968		10,74,278

APPENDIX XV.

Memorandum shewing the routine of correspondence between Army Departments.

As an example, we may trace the course of a question taking its origin in a regiment of the Madras Army. The letter passes through the officer commanding the station from his staff office to the office of the Adjutant General's or Quartermaster General's Department of the district, who submits it to the General commanding the district. The General then sends it with his remarks through his staff office to the Adjutant General or Quartermaster General, Madras Army, who, if necessary, submits it to the Commander-in-Chief. If involving a question of expense or finance, or any change, it must go to the Local Government, *i. e.*, to the Military Department, Madras. The Military Department then refers it for report, as to the expense involved, to the Controller of Military Accounts, who of course may have to consult his subordinate branches. Then the Controller sends it back with his report to the Military Department, which takes the orders of the Local Government thereon. If the latter decide they can deal with it, the whole process is repeated until the decision finally reaches the regiment. But in many cases the matter has to be referred to the Government of India. The whole of the papers are then, as a rule, printed as "Proceedings of the Government of Madras in the Military Department," and travel to Simla or Calcutta. After passing through the office process of the Military Department, Government of India, these papers would usually go for the opinion of the Commander-in-Chief in India, but would be addressed to the Adjutant General or Quartermaster General, as the case may be. If involving expenditure, the Accountant-General in the Military Department would also be consulted, and if, as frequently, a question of equipment, the Inspector General of Ordnance, Bengal Presidency, would be asked his views, though his position is not that of ordnance adviser for India, but for Bengal only. All the several office processes are gone through and sometimes again and again until the matter is in a complete state for the decision of the Governor General in Council, and the file of papers, even for a matter involving no elaborate discussion,

has, with letters, memoranda, office notes by Assistant Secretaries and Secretaries, and précis by clerks, reached a bulk which is, sometimes beyond the importance of the question. When the decision of the Governor General is recorded, the process is repeated downwards.

This represents the system of communication even for matters not requiring much correspondence between separate departments; but in treating subjects of greater magnitude, the evil becomes excessive.* It can well be imagined that numerous cases involve the action or opinion of several departments: thus the Departments of the Adjutant General, of the Quartermaster General, the Commissary General, and the Inspector General of Ordnance, and, if expenditure is involved, the Controller of Military Accounts, may all be employed on one question. If it be considered that the difficulties of the present complicated system have at all been exaggerated reference should be made to the Proceedings of the Government of India, and of the Madras and Bombay Governments, and between the lines, for each step, the office processes detailed by the heads of departments in their evidence, and given in Appendix IV, Section M, should be interpolated.

But actual facts are of more value than opinion. If we turn to the Proceedings of the Madras Government in the Military Department for January, we notice a question of whether a battery in Burmah should practise at Thayetmyo. The battery commander sent his proposal to the Royal Artillery Office, British Burmah Division; thence it passed to the General Officer Commanding; from him to the Quartermaster General, Madras; he referred it to the Assistant Adjutant General of Royal Artillery, who again corresponded with the Quartermaster General; the latter sent the proposal through the Controller of Military Accounts to the Madras Military Department, which, having also referred it to the Controller, took the orders of Government thereon and communicated them to the Quartermaster General, the Adjutant General and the Controller, the process being repeated as before.

The Commander-in-Chief in Bombay has given an instance of the circumlocution existing in the following terms:

"A very considerable amount of correspondence might be saved by the Commander-in-Chief's views, in his military capacity, being recorded on the Council paper, instead of, as now, in an official letter through the Adjutant or Quartermaster General's Department. The course of a letter through the several channels will illustrate my meaning.

"This letter is (1) recorded in the Secretariat; a short summary of the subject is made, and it is transmitted (2) to the Governor, who returns it (3) to the Secretary for transmission (4) to the Commander-in-Chief in Council. The Commander-in-Chief initials the docket, or records his views on the subject in a minute, and, if necessary, sends it on to the Civil Members of the Council; but under ordinary circumstances he returns it (5) to the Secretary, by whom it is sent (6) to the Adjutant or Quartermaster General (as the case may be) for the opinion of the Commander-in-Chief.

"The correspondence is then again submitted by the departmental officers (7) to the Commander-in-Chief, and his views are recorded by the departmental officers, who return the letter (8) to the Secretary, by whom, if necessary, the correspondence is again submitted (9) to the Governor before being sent (10) to the printing office. On the return (11) of the printed form, the Government Resolution is again sent (12) to the staff officers of the Commander-in-Chief and to the Military Department of the Army to which it belongs, to be acted upon. Thus, after a lapse of at least a fortnight, and the transmission of the correspondence by post or messenger through twelve different stages, *an order from the Government of India may be acted upon or replied to by the Commander-in-Chief of the Bombay army.*"

Although it would be impossible to burden this appendix with an account of the office procedure and routine entailed on every office of the army administration, it is necessary to take a simple case involving only the action of four out of the numerous departments and chief offices dealing with military affairs in India.

The following office processes and routine are entailed in correspondence between (say) the Military Department, Government of India, the Adjutant General, the Quartermaster General, and the Inspector General of Ordnance:—

Military Department.

The following is the procedure followed in dealing with letters received in the Military Department, an office divided into five sections. The letter is taken by the receiving clerk from the messenger or postman who brings it, and the cover containing it is sent down, unopened, to the Secretary; who opens it, reads the contents, and sends them up to the chief clerk. The chief clerk, after acquainting himself with the subject of the communication, sends it to the general register-keeper, who enters it in his register,† and makes it over to the superintendent of the section to which it belongs, according to the subject-heading. The superintendent of the section then has it docketed and entered in the section inward-register‡ and marked as submitted to the Assistant Secretary in charge of the section. The Assistant Secretary, if possible, passes orders on the case at once, but generally returns it to the section with the order to complete with previous references and papers. The paper is then marked off in the inward-register to the clerk who completes papers; and he, after putting up the papers, countermarks them in the inner fold of the docket sheet of the new letter, and then sends it back to the superintendent of the section, who sees that the case has been properly completed, and if not, has this done, and then sends it on to the précis-writer, to bring it on the précis of the case if there is one, or else to begin a new one. The inward-register is again marked to show that the case has been given to the précis-writer; and the latter, after doing his work, gives it to the superintendent, who, after

* It appears that in the various branches of the higher army administration corresponding to the War Office in England, the total average of letters, telegrams, &c., ordinarily received amounts to about 45,000 each month, and the number issued to about the same. In preparing for the Afghan Campaign of 1878-79 during the two months before actual hostilities took place, nearly 10,000 separate letters, &c., were issued, and during the war till peace was signed, about 28,000.

† This shows all the letters received daily in the office, and the section to which each has been sent.

‡ This is a register of all letters received in the section, and shows the different hands through which the paper has to pass before the reply issues.

satisfying himself that what has been written on the précis is correct, makes any suggestions he can offer, and sends the case down to the Assistant Secretary in charge, the inward-register being again marked. If the case be not a simple one which he can dispose of, the Assistant Secretary in charge makes his remarks on the précis and passes it on directly to the Secretary, who adds his views and sends it to the Military Member in charge for orders; and he, if deemed necessary, sends it to the Viceroy for confirmation of the orders suggested. In some important cases the papers are circulated to the Members of His Excellency the Viceroy's Council, which is done by the Secretary without the papers having to pass through the office. When orders have been passed, the case comes back to the Secretary, who, if he does not draft the reply or letter ordered to be written, sends the case on to the Assistant Secretary in charge, who may draft it or send the case up to the office to its proper section, the superintendent of which reads the orders passed and sends the case to the drafter, the inward-register being marked. After the draft has been written and approved of by the section-superintendent, it is submitted to the section officer for approval; and, when finally approved; it is docketed by the drafter, who notes any alterations that may have been made in it, and sends it to the copying branch. Each time the case changes hands the section register is marked. After it has been fair-copied, it is returned to the section, where any one who may be available examines the fair copies. It is then numbered in the outward-register,* and the numbers marked opposite the case in the inward-register. The fair copies are then sent to the section-superintendent, who, after reading them over, sends them down for signature, the rough draft and papers being at the same time sent by the register-keeper to the despatcher, who, on receipt of the signed letters from the section-superintendent (to whom they are returned by the Secretaries after signature), despatches them, and marks having done so on the original draft. The original drafts are collected daily by the despatcher and circulated throughout the office; and an office copy of it, with connected papers, is returned to the section-superintendent, who sees if the case requires to be held over, and if not, marks it "Record A" or "B," according to its importance. The papers then go to the register-keeper again, who, if they are to be held over, marks his book accordingly, and puts them into their proper pigeon-hole in the "hold-over" press; to be taken out after a month for issue of reminder if no reply comes in the meantime. If the case is for record, it is so marked in the register and sent to that department. In some cases the opinion of the Accountant General, Military Department, has to be taken; and in these the additional procedure involved is that, after the précis has been written and the case submitted to the Secretary of the section, he writes on it "To Accountant General for opinion," &c., and returns to his section. The register-keeper then marks his book showing that the case has gone to the Accountant General, and a list of all the papers in the packet is made, the subject of the case and the purpose for which sent to the Accountant General entered briefly in a peon book, and the case is then despatched. On its return from the Accounts Branch, the notes of that branch are read by the section-superintendent; and if any papers are quoted, these are put up by the section-completer, and the case is then sent down for orders, the inward-register being marked at every stage. After this the procedure becomes the same as previously described.

Let us now suppose that the result of the foregoing procedure is that a letter is sent to the Adjutant General.

Adjutant General's Department.

On receipt of the letter from the Military Department is sent by the chief clerk (who opens the post) to the head clerk of the branch to whom the subject may appertain.

If it refers to previous correspondence, the branch head clerk makes the letter over to his record-keeper and diarist (one man), who gets out necessary previous papers and returns letter with previous papers to head clerk. The latter then scrutinizes the papers, and, finding them complete, makes them over to one of his clerks, who brings the contents of the letter on the précis docket of the case, stitches up the letter at end of compilation, and then hands the papers to diarist. The diarist enters the letter under its subject-heading in diary, noting as a catch at bottom of entry the diary number of previous entry in same case, to maintain check links. He also enters in a nominal index sheet, kept with the diary, the names or officers of men referred to in letter. He then writes on précis of letter the diary number he has given it. The case completed, he hands it to his head clerk.

The head clerk reads up the case, and notes clearly on précis how it stands, quoting orders or precedents, and suggesting action for its disposal.

He then sends it to the officer of branch, who notes his remarks and opinion on précis, and submits the case to Adjutant General.

The Adjutant General reads the précis docket (which in all cases is a covering history of the matter from the beginning down to the letter we are following), and refers to the compilation where necessary. He finds on consideration that the subject is one he cannot well dispose of himself; so he notes his views on précis, and orders it into "schedule," *i.e.*, for submission to Commander-in-Chief.

All papers from Adjutant General are delivered to the chief clerk for distribution, &c., and thus the chief clerk has received the particular case in which the letter we are following is marked "For schedule." He sends it to the branch officer that he may see the orders passed by Adjutant General.

It then goes to branch head clerk; he hands it to the diarist, who writes "Schedule" opposite diary entry of case, and sends it again to chief clerk.

The case is now briefly entered with others by chief clerk in a printed form of registers schedule, and submitted by Adjutant General to the Commander-in-Chief.

His Excellency (like every one else) writes his orders on the précis, and the case comes back again from the Adjutant General to chief clerk, to branch officer, to branch head clerk, who has now prepared the draft reply for Government, and sends to officer of branch, who submits to Adjutant General for approval. Adjutant General amends or approves, and the papers again find their way

* This shows the letters issued by each section.

to the branch, where the draft is fair copied, examined, and sent to officer of branch, who initials it in pencil and forwards to Adjutant General for signature. This done, the letter goes to branch, where it is numbered, dated, and despatched to Government.

The draft is then circulated for perusal with other drafts of the day (every branch does this daily) to branches and officers, so that all may know what is being done throughout the office.

After circulation, the draft is stitched up with its case (we do not make book copies of our letters). The head clerk then notes on précis "P" or "D," *i.e.*, "pending" or "deposit," and hands it to diarist, who makes in diary column a brief abstract of the reply given to Government (our diaries are indexes of receipts and issues; we do not keep separate indexes). He notes therein also "P" or "D," and puts away in the pending or deposit almirah of current year, the case *containing the Government letter we have followed.*

The foregoing follows a letter requiring His Excellency's personal orders. But of course quite two-thirds of our receipts are disposed of by order of the Adjutant General under regulation, important and special matters only being submitted to His Excellency.

Nevertheless, the Adjutant General in India states, in hundreds of cases the procedure described is lengthened and work increased when circular reference is made to departmental, general, or commanding officers for opinion before final orders are passed.

The letter now passes to the Quartermaster General, and enters the following office processes:—

Quartermaster General.

The letter is opened and stamped by the chief clerk, and sent by him with the rest of the delivery to all the officers for perusal and return. It is then passed on to the head clerk of the branch to which it properly belongs: by him it is sent to the diarist, who enters it in his diary, puts up previous papers, if any, and returns it to the head clerk of the branch. The latter causes a précis-docket to be prepared; writes an explanatory note thereon, if necessary; and submits it to the officer of his branch through the chief clerk, who scrutinizes it before passing it on.

The officer of the branch writes his remarks or orders on the précis-docket, and returns the case to the chief clerk, to submit to the Quartermaster General for final orders, or pass on to the head clerk of the branch for action, as the case may demand.

On receiving back the case, the head clerk of the branch arranges for the preparation of a draft of the action ordered, which he submits through the chief clerk for the approval of the officer of his branch, who returns it to the chief clerk for final approval by the Quartermaster General, if necessary, or to pass on to the head clerk of the branch.

The latter, on receipt of the approved draft, sends it to the head native clerk, by whom it is given to a copyist; the fair copy is carefully compared with the draft by the two European clerks whose weekly duty it may be to examine the copyists' work, and is then sent by the head clerk of the branch, through the chief clerk, for signature. After signature, the chief clerks sends it to the despatching clerk, who gives a number and dates it, marks the action taken on the letter to which it is a reply on the précis-docket and upon any previous drafts there may be in the case, weighs and affixes postage labels to the cover, and sends it to the chief clerk for frank. When this has been done, the despatcher sends it to the post office for delivery,—sends the case to the record-room for deposit, and the draft action to the indexer for entry in the index of letters written and filed.

If the matter be connected with equipment, the Quartermaster General might, under the orders of His Excellency the Commander-in-Chief, ask the opinion of the Inspector General of Ordnance. The letter with the papers originally received from Government would issue to the Inspector General of Ordnance, and it would pass through his office in the manner described in that officer's evidence—See Appendix IV, Section M.

Inspector General of Ordnance and Magazines.

It would be opened by the Assistant to the Inspector General of Ordnance, and submitted to the latter, pointing out anything requiring early attention.

The Inspector General initials and dates it, and, passing his orders briefly on it, sends it out to the senior clerk present, who notes the name of the clerk whose business it is to deal with it.

The clerk, after entering it in his consecutive diary and giving it a subject heading, hands it over to the assistant of the class to which it belongs, who enters an abstract of the subject in his diary, puts up the previous correspondence on the same subject (if there be any), and returns it to the senior clerk who now numbers it, looks through the papers, and, if correct, sends it to the clerk to whom it is assigned.

The clerk deals with the letter according to the rules of the office and the previous papers, and sends it, with a memorandum of the proposed action on it, to the senior clerk, who initials it, and submits it to the Inspector General of Ordnance for approval. After approval by the Inspector General, a draft reply is framed and submitted for approval; and after approval it is fair-copied, signed, and despatched.

The letter and the rough draft reply, after the latter has been dated by the despatcher, are sent to the record department, where the draft is entered in the diary, after which both are put up and recorded with other papers on the subject, if there be any.

Frequently, however, the papers would go back to the Military Department from the Adjutant General and Quartermaster General, and the Military Department repeating its office process would itself ask for the opinion of the Inspector General of Ordnance.

APPENDIX XVI.

Correspondence regarding the concentration of Divisional and District Offices in the three Presidencies.

Extract from the Adjutant General's letter No. 3743A., dated the 11th November 1873.

I am instructed to state that the experiment of working the offices of Assistant Adjutant General, Assistant Quarter-Master General and Brigade-Major, under one roof, was successfully carried out at the head-quarter stations of the Oudh and Sirhind Divisions.

2. As the experiment has been proved to have worked satisfactorily and to be a great improvement on the existing system, I am desired to recommend its general adoption throughout this command.

* * * * * * * * *

6. The Commander-in-Chief is of opinion that this scheme, if universally carried out, would much diminish routine work, and facilitate the transaction of public business. Another advantage would be that, whenever any individual staff officer was unavoidably absent, one of the other officers could always take up his duties as a temporary arrangement, and thus delay in carrying out the ordinary detail work, and consequent inconvenience to the service or to individuals, would be avoided.

Extract from letter from MAJOR-GENERAL SIR H. TOMBS, K.C.B., V.C., *Commanding Oudh Division,—No. 2681, dated the 6th December 1872.*

* * * * * * * * *

In conclusion, I beg to offer it as my opinion that if Government would either build or buy a suitable building, in large cantonments, for the amalgamated offices, and deduct the sums supposed to be allowed for office rent from the salaries of staff officers, the arrangement would be far preferable, and probably not more expensive than the present one.

Extract from a letter from the Adjutant General in India,—No. 199 (Camp), Staff Offices, dated the 12th December 1874.

* * * * * * * * *

3. It seems most necessary for the convenience of all, and to secure increased efficiency, that all the offices in every station should be under one roof, in a building centrically situated, and the property of, or hired by, the State.

Extract from a letter from the Secretary to the Government of India, Military Department,—No. 859, (Establishments—Departmental), dated Fort William, the 16th January 1875.

* * * * * * * * *

3. For this and other reasons, His Excellency in Council considers that it will suffice as a beginning merely to adopt the simple plan of concentrating all staff offices, or such as can conveniently be brought together, in one building, the present staff of clerks being retained, and a few soldier-clerks from the regiments at the same station taken on in place of the native clerks as vacancies occur.

Extract from letter from the Quarter Master General, Bombay,—No. 4-2—2385, dated Poona, the 19th June 1877.

* * * * * * * * *

I fully concur in the opinions expressed by Lord Mark Kerr regarding the desirability of concentrating the divisional staff offices in one building, in a central situation, and within a convenient distance of the residences of the staff officers; but I can hear of no building, either public or private, that would be suitable.

Extract from letter from the Quarter Master General, Bombay,—No. 1195, dated Bombay, the 15th June 1877.

* * * * * * * * *

2. With reference to "whether a public or private building centrally situated is available for concentrating the offices," I beg to state that the Town Hall, which meets all these requirements, already accommodates the following offices *viz.*:—

(*a*) The office of the Brigadier General Commanding the District.
(*b*) The Brigade Major's Office.
(*c*) The Assistant Quarter-Master General's Office.

(*d*) The office of the Surgeon General, Indian Medical Department.
(*e*) The office of the Surgeon General, British Troops.
(*f*) The office of the Deputy Surgeon General, Indian Medical Department.
(*f1*) The Administrator General.

3. The Town Hall is admirably adapted for concentrating the military executive offices, being only five minutes' drive from the marine lines, where the Brigadier-General, the Brigade-Major, and the Assistant Quarter-Master General reside.

4. Pending, therefore, the construction of the proposed new military offices, there is no building in Bombay more conveniently situated for the purpose; but in order to bring all the executive offices together, it is very desirable that room should be provided in the Town Hall for the following two offices also, by which arrangement all immediate requirements of troops, both officers and men, can be met under the one roof, *viz.*,—

(*t*) Office of the Deputy Surgeon General, British Troops.
(*u*) Office of the Presidency Pay Master.

* * * * * * * * *

8. I beg most strongly to urge these proposals on the consideration of His Excellency the Commander-in-Chief.

Extract from letter from the Quarter-Master General, Madras,—No. 80, dated Ootacamund, the 5th June 1876.

I am desired to state that Sir Neville Chamberlain considers it to be of the very greatest advantage to the public service that in all large cantonments the divisional staff offices should be placed in a central building.

2. For some years* past this has been the case at Bangalore, and with very beneficial results. At Fort Saint George, with one exception, all the offices of the district staff are located therein and in close proximity one to the other.

* O. G., No. 2177, 2nd July 1857.
" No. 762, 28th February 1862.
" No. 1457, 4th May 1863.
" No. 1275, 16th April 1872.

* * * * * * * * *

4. At Rangoon in particular, where officers and details are constantly passing through, either arriving from or returning to India, the establishment of a central office is much to be desired; similarly, also at Secunderabad, by reason of the large extent of ground over which our troops are located.

Extract from letter from Quarter Master General, Madras,—No. 531, dated Ootacamund, the 14th September 1876.

BANGALORE.

By blocking up an archway and providing a door in the present public offices, at a cost of about Rs. 100, accommodation could be made available for the Assistant Adjutant General for Musketry. This officer now has his office in his private residence, but receives no rent for the same from Government. His Excellency considers it desirable that this change should be effected.

BELLARY.

The Brigade-Major is the only staff officer provided with public office accommodation at this station, two rooms being set apart for his use in a building, which also contains a court-martial room, and the two enclosed verandahs of which form—the one, a pension pay office, and the other, a guard-room for the guard over the pension and station cash chests.

2. The building is centrally situated as regards the troops, though nearly three miles distant from the residence of the Officer Commanding the district.

3. The Deputy Assistant Quarter-Master General's office is situated immediately opposite to the railway station, and about mid-distance between the Brigade-Major's office and the quarters of the Brigadier General Commanding. This is not a Government building.

4. The Barrack Master's office is contained in his own quarters, which are centrally situated as regards the troops, and about half a mile from the Brigade office, and one and a half mile from the office of the Deputy Assistant Quarter-Master General.

5. The Brigade-Major's office being centrally situated, there appears to be no drawback attendant upon the other staff offices being where they now are.

6. There is no building within the cantonment that could be hired suitable for public offices, neither is any public building, as far as can now be foreseen, likely to become vacant, which could be so appropriated.

7. Two rooms could be added to the Brigade office building for the use of the Deputy Assistant Quarter-Master General, at an estimated cost of Rs. 5,400, and one for the Barrack Master in conjunction with them at that of Rs. 2,000.

8. The saving to Government by this arrangement would amount only to Rs. 30 per mensem, which the Deputy Assistant Quarter-Master General draws as office allowance, for the Barrack Master has his office in his own quarters, and draws no office rent.

9. His Excellency is of opinion that it is, on principle, desirable to concentrate the three offices under one roof; but as the work cannot be considered of an urgent nature and is estimated to cost

Rs. 7,400, he cannot now recommend the expenditure. The Officer commanding the District might be instructed to report to army head-quarters when any public building may become vacant, which could be utilized for the purpose.

SECUNDERABAD.

There is no public or private building at present available for the concentration of staff offices at Secunderabad; but when the heavy battery of artillery is eventually moved from its present position to Trimulgherry, the barrack they now occupy will, with a few minor alterations, suit admirably for the purpose, and its position is perhaps the most central in the cantonment.

2. His Excellency recommends the adoption of this course, and that instructions be sent to the Officer Commanding the Hyderabad Subsidiary Force to report when the measure can be carried out.

KAMPTEE.

The offices of the Brigade-Major and Deputy Assistant Quarter-Master General are under one roof. They each draw Rs. 30 per mensem as office rent, and they hire a bungalow for the purpose.

2. The Barrack Master's office is in an old Government building, and centrally situated near the British Infantry barracks.

3. The Engineer's estimate for building a central office for the staff officers of the force is Rs. 38,000, but the Brigadier General Commanding recommends the purchase of a house, which, by position and by the accommodation it affords, he considers well adapted to the purpose; but as the purchase of the property, together with the expense of making certain necessary alterations, is estimated to cost nearly Rs. 20,000,* and the only set-off would be a saving of Rs. 60 a month in office rent, the Commander-in-Chief cannot at the present moment recommend the outlay.

* Original cost Rs. 15,000.
Alterations „ 4,000.

RANGOON.

	Rs.
Deputy Assistant Quarter Master General ...	30
Brigade Major	30
Assistant Adjutant General for Musketry ..	20
Total ...	80

The staff officers draw rent as per margin and find accommodation for their offices in their private houses.

2. There are no public buildings, either available or likely to be available, in which their offices might be concentrated, neither is any private house obtainable for the purpose within military limits.

3. The Executive Engineer estimates the cost of building offices for the staff at Rs. 12,000. The Commander-in-Chief is of opinion that, under present circumstances, it is better for Government to continue to pay the monthly rent of Rs. 80 than construct a new building.

Extract from Bombay Public Works Department Resolution No. 260M.-W., dated 15th August 1876.

RESOLUTION.—It would be a great improvement to concentrate the offices of the divisional staff in one building; in this view, the Superintending Engineer, Central Division, should place himself in communication with the officers named in the margin, and should ascertain whether their offices can be accommodated in the building which will shortly be vacated by the Adjutant General of the Army. If this building will not answer the purpose, it should be ascertained whether there is any other available which would be suitable. The Superintending Engineer should also report the terms on which a suitable building can be secured.

1. The Assistant Adjutant General, Poona Division.
2. The Assistant Quarter Master General, Poona Division.
3. The Deputy Judge Advocate General, Poona Division.
4. The Brigade Major, Poona.

No. 565-67, dated Simla, 14th October 1879.

From—The Secretary to the Army Organization Commission,

To—The Chief of the Staff in India.

„ Quarter-Master General, $\frac{\text{Madras}}{\text{Bombay}}$ Army.

I am desired by the Army Organization Commission to enquire what progress has been made in the scheme for concentrating divisional and district offices in the Bengal, Madras, and Bombay Presidencies.

No. 4-35—3244, dated Poona, 20th October 1879.

From—Lieut.-Colonel B. H. POTTINGER, *for* Quarter-Master General, Bombay Army,

To—The Secretary, Army Organization Commission, Simla.

In acknowledging the receipt of your letter No. 567 of the 14th instant, I am desired to forward a copy of the précis of reports from General Officers commanding divisions and districts, regarding concentration of divisional and district offices, together with a copy of Government Resolution No. 4188, dated 10th October 1877, and Government Resolution No. 3969, dated 13th October 1879, on the subject, and to inform you that nothing further has been done in the matter.

Précis of Reports by Officers Commanding Divisions and Districts on concentration of divisional offices.

Poona.—No building, either public or private, with sufficient accommodation available.

Twelve rooms required. House-rent so high that concentration would cost much more than the present arrangement.

Ahmedabad.—No public building available, nor any private building sufficiently commodious. There are barely enough houses for the accommodation of the officers of the garrison.

Deesa.—No building, either public or private, available. Impracticable to hire a house, as there are only enough for the residents of the station.

Belgaum.—No building, public or private, centrally situated available for concentration.

Mhow.—There is want of accommodation for officers of the garrison. Only one house, rent Rs. 120, occupied at present by the garrison school, would suit, but would necessitate breaking up the school.

Kurrachee.—No building centrally situated within camp limits is available.

Bombay.—With the exception of Deputy Surgeon General, British Forces, and Military Pay Master, all the offices are concentrated in the Town Hall, which is very conveniently situated and points out the great inconvenience and exposure to which sick officers are subjected by the above two offices being detached; to obviate this General Officer recommends that an exchange of offices be effected between the above and those of the Surgeon General, Indian Medical Department, and of the Administrator General.

QUARTER MASTER GENERAL'S OFFICE,
Poona, 16th June 1877.

STANLEY EDWARDS,
Offg. Depy. Qr. Mr. Genl.

Extract from the Proceedings of the Government of Bombay, Military Department,—No. 4188, dated Bombay Castle, the 10th October 1877.

Read—

Letter from the Quarter-Master General of the Army, No. 4-2—2385, dated 19th June 1877.—Referring to Government Resolution No. 2018, dated 7th May last, forwards reports by the General Officers Commanding Divisions and Districts on the question of the concentration of the staff offices in large stations in one building, and states that on account of want of suitable accommodation in any central place, it is not possible to carry out the scheme at present in any of the stations named in the Resolution above referred to except Bombay. Brings to notice the inconvenience arising to officers and others arriving at and leaving Bombay (many of them sick) from the office where the Medical Board is held and the Military Pay Office being at considerable distance from the other offices, and brings to notice the benefit which would arise if an exchange of offices could be arranged between the Military Pay Office and office of the Surgeon General, British Forces, on the one hand, and the Administrator General and the Surgeon General, Indian Medical Service, on the other.

Memorandum from the Secretary to Government, Military Department, to the address of the Quarter-Master General of the Army, No. 4941, dated 6th August 1877.

Letter from the Quarter-Master General of the Army, No. 4-2—3311, dated 16th August 1877.—In reply to Government memorandum No. 4941, dated 6th August, submits a report by the Brigadier-General Commanding Bombay District, regarding the provision of accommodation for the office of the Surgeon General, Indian Medical Department, Bombay, together with a return of offices in Bombay, shewing where they are now situated and where they are proposed to be moved to.

Memorandum from the Secretary to Government, Military Department, to the address of the Chief Secretary to Government, General Department, No. 6264A., dated 21st August 1877.

Memorandum from the Secretary to Government, Military Department, to the address of the Controller of Military Accounts, No. 6264B., dated 21st August 1877.

Letter from the Controller of Military Accounts, No. 1209, dated 4th September 1877.

Resolution of Government in the Financial Department, No. 3825, dated 6th September 1877.

RESOLUTION.—The reports furnished by the Quarter-Master General with his letter No. 4-2—2385, dated 19th June last, show that for want of suitable accommodation in any central place, it is not possible to concentrate the staff offices at the following stations:—

Poona,	Belgaum,
Ahmedabad,	Mhow,
Deesa,	Kurrachee.

2. The scheme of concentration of the offices at Bombay as proposed by the Brigadier-General Commanding Bombay District is good and desirable; but the result of the enquiries instituted on the subject proves that it is not practicable at present.

3. A report to this effect to be made to the Government of India, with reference to Secretary Colonel Burne's letter No. 161S., dated 21st April last, *Establishments—Departmental.*

Extract from the Proceedings of the Government of Bombay, Military Department,—No. 3969, dated Bombay Castle, the 13th October 1879.

Read—

Letters from the Quarter Master General of the Army, No. 4-30—2161, dated 29th July 1879.—Submits a representation of the unhealthy nature of the accommodation provided for the office of the Deputy Surgeon General, British Forces. Invites attention to his paragraph 3 of letter No. 4-2—2385, dated 19th June 1877, and hopes that it may now be possible to find suitable accommodation for the Military Pay Office in some building in the Fort, in which case suggests that the offices of the Surgeons General should be moved into the present Military Pay Office, and that the accommodation in the Town Hall, now allotted to them, should be handed over for the office of the Deputy Surgeons-General.

Memorandum to the Secretary to Government, Public Works Department, No. 1016, dated 9th August 1879.—Enquiring if there is any building, the property of Government, in charge of the Public Works Department, situated in or near that part of Bombay known as the Fort, which would be suitable for occupation by the Presidency Pay Office.

Memorandum to the Chief Secretary to Government, General Department, No. 1017, dated 9th August 1879.—Enquiring whether there is any Government building in Bombay in charge of that Department which could be made available for the accommodation of the office of the Presidency Paymaster.

Memorandum from the Under Secretary to Government, Public Works Department, No. 168E., dated 20th August 1879.—Stating that there is no vacant public building in charge of the Public Works Department in or near the Fort suitable for occupation by the Presidency Pay Office.

Memorandum from the Under Secretary to Government, Separate Department, No. 154, dated 18th August 1879.—Intimating that the bungalow attached to the old Secretariat, formerly in the occupation of the late Mr. Miles, and now rented to Mr. Trail, Acting Deputy Superintendent, Government Central Press, can, if approved after inspection, be made available for the accommodation of the office of the Presidency Paymaster.

Letter from the Controller of Military Accounts, No. 882, dated 29th August 1879.—States reasons which render the old Medical Stores buildings unsuitable for occupation by the Presidency Pay Office. Is of opinion that the rooms lately occupied in the Town Hall by the Administrator General, and which are now filled with stationery stores, would be suitable for the Deputy Surgeon General, British Forces, the stores in question being removed to the rooms now occupied by that officer. States that the Deputy Surgeon General would be quite willing to exchange, and that the move would be convenient for his office as being in the Town Hall, where so many other military offices are located.

Memorandum to the Chief Secretary to Government, General Department, No. 52P., dated 2nd September 1879.—Enquiring whether the rooms under the Town Hall, lately vacated by the Administrator General, could be made available for the office of the Deputy Surgeon General, British Forces, Presidency Circle, if the building occupied by that officer is placed at the disposal of the General Department.

Memorandum to the Chief Secretary to Government, General Department, No. 64P., dated 13th September 1879.—Asking for an early reply to the above.

Government Resolution in the Financial Department, No. 3206, dated 19th September 1879.—Forwarding copy of a memorandum from the Superintendent of Stationery, with an intimation that the rooms referred to are not available.

RESOLUTION.—Government regret that it is not possible to carry out the arrangement proposed by the Quarter-Master General.

2. It is understood that the Deputy Surgeon General desires to vacate the present building in order to avoid noise, heat, and bad smells. The first objection is one common to almost all public offices in Bombay, the second is inseparable from service in the tropics, and the third is one which should be brought to the notice of the Municipal Commissioner in view to the cause of the bad smells being removed by the sanitary branch of his department.

3. In the course of this enquiry the fact has been elicited that the Deputy Surgeon General occupies a Government building, although he is in receipt of an office allowance which is ordinarily viewed as covering all expenses, office-rent included. The Surgeon General, British Forces, should therefore be requested to state the precise authority which exists for specially exempting the Deputy Surgeon General, British Forces, Presidency Circle, from the operation of this rule.

No. 4551B., dated Simla, 21st November 1879.

From—Lieut.-Colonel C. SCOTT, *for* Adjutant General in India,

To—The Secretary to the Army Commission, Simla.

In reply to your letter No. 565, dated 14th October 1879, I have the honor to state that the following arrangements have been made by the several General Officers Commanding Divisions and Districts for carrying out the scheme for concentrating under one roof their divisional and district staff offices.

2. In the Meerut, Sirhind, and Oudh Divisions all the staff offices, save that of the Deputy Judge Advocate, are now located in one building on a monthly rental of Rs. 89, Rs. 90 and Rs. 100 respectively. In the Lahore Division the scheme was only partially carried out, but in the Allahabad and Rawal Pindee Commands no steps have been taken, owing to suitable buildings for the accommodation of all the offices not being available at the head-quarter station of those divisions.

3. As regards the district staff offices in the Gwalior, Saugor and Eastern Frontier Districts, they are all located in one building at the head quarter station of those Commands, but in the Presidency District, only the offices of Deputy Assistant Adjutant General and Deputy Assistant Quarter-Master General are in the Fort, those of the Deputy Judge Advocate and Assistant Adjutant General for Musketry being elsewhere located for want of sufficient accommodation in the garrison. No action has yet been taken on the subject in the Peshawar District, nor has the Rohilcund District reported the steps which have been taken in the matter.

No. 8357, dated Fort St. George, 25th November 1879.

From—Brigadier General H. O'CONNELL, Quarter Master General, Madras,

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

With reference to your letter No. 566, dated 14th October 1879, enquiring what progress has been made in the scheme for concentrating divisional and district offices in the Madras Presidency, I have the honor, by order, to state as follows:—

Bangalore.—The offices of the Assistant Adjutant General, Assistant Quarter Master General, and Barrack Master are located in one block of buildings.

Bellary.—There is no public building in *Bellary* in which the whole of the divisional offices could be placed under one roof.

The Brigade office is the only one provided with public accommodation, two rooms being set apart in a building which also contains a court-martial room, and the two enclosed verandahs of which form, the one a pension pay office, and the other a guard room for the guards over the pension and station cash chests.

Secunderabad.—There is no suitable public or private building at present available for the concentration of the staff offices at Secunderabad; but when the heavy battery of artillery is eventually moved from its present position to Trimulgherry, the barracks they now occupy might be altered and will suit admirably for the purpose. This will be carried out when the heavy battery moves into new barracks.

Kamptee.—The offices of the Brigade-Major and Deputy Assistant Quarter Master General are under one roof. They draw each Rs. 30 per mensem as office-rent, and they hire a bungalow for the purpose. The Barrack Master's office is an old Government building and centrally situated near the British infantry barracks. The estimated cost of building a central office is Rs. 20,000, and the outlay has not been recommended by the Commander-in-Chief to Government.

Rangoon.—There are no public buildings either available or likely to be available in which the offices might be concentrated, neither is any private house obtainable for the purpose within military limits. The Department Public Works estimates the cost of building offices for the staff at Rs. 12,000.

The Staff officers draw rent and find accommodation for their offices in private houses.

Fort Saint George.—All the offices of the district staff are located in public buildings in close proximity within the Fort.

APPENDIX XVII.

Statements of the matters dealt with in the month of January 1879 in the Military Departments of the Governments of India, Madras, Bombay, and the Punjab, with additional statements showing the subjects which emanated from the Government of India, or were referred to it by the Local Governments.

STATEMENT No. I.

Index to the Proceedings of the Government of India, Military Department, for the Month of January 1879.

ACCOUNT DEPARTMENT.

ESTABLISHMENTS.—Central offices of account—Formation at Umballa for commissariat accounts, expeditionary force—See *Field Operations—Kabul.*

Extra temporary office of Examiner, Pay Department, for check and audit of charges—See *Field Operations—Kabul.*

Offices, temporary—Formation at Umballa for audit of field commissariat accounts—See *Field Operations—Kabul.*

Pay office for General Stewart's Division refused—See *Field Operations—Kabul.*

ACCOUNTS.

Cash balances with disbursing officers, Military Department, Bengal, on 1st September 1878 and 1st January 1879.

Receipts and charges for the first two months of year ending 31st May 1878 and for official year ending 31st March 1878—Consolidated statements.

——————— Military Department in India, for first three and first four months of current official year—Consolidated statements.

Treasure chest with General Stewart's Division to remain under commissariat charge—See *Field Operations—Kabul*

ADJUSTMENTS.—Advances of pay, &c., to regiments coming to India.

Credit-note system—Errors in payment.

BUDGET.—Department of Horse-Breeding Operations for 1880—Comments.

DISBURSEMENTS.—Actual—on frontier military operations—Financial Resolution regarding—See *Field Operations—Kabul.*

Irwin, Private J., } 1-3rd Foot—Sum due for judging-distance prizes included in War Office
Hutchinson, Private T., } List.

IMPERIAL.—Receipts and disbursements, Home Treasury, Government of India—Statements.

Statement of receipts and disbursements of Home Treasury from 1st April to 31st October 1878.

RECOVERIES.—Medical officer's pay overpaid in England.

Falconnet, Lieutenant-Colonel G. P. deP., R.E., Madras—Sum due to Sappers' mess.

Farquhar, Lieutenant F. J. W., 13th Hussars.

McKay, Brevet-Colonel J., commanding 3-2nd Brigade Depôt, late commanding 2-12th Foot—Enquiries suggested before the claim is transmitted to England.

REDUCTIONS AND SAVINGS.—Staff salary for command of European veterans.

Tents for soldiers' families—Question of maintenance and charge.

REMITTANCES—To be made by Brigadier-General.—Decision regarding the extent of—noted in Pay Code.

Unpaid on 30th June 1878.

73rd Foot, 1-14th Foot } Gratuities.

Black, Corporal E., 1-5th Royal Artillery—Sum for repayment in India to be included in next list.

Collard, Private H., Davies, Private T., Forsythe, Sergeant-Major J., Gurner, Corporal J., Stevens, Farrier-Major J., 9th Lancers ... } Gratuity.

Read, Saddler-Sergeant H., 6th Dragoon Guards ... } Gratuity.

Crawford, Conductor W., Ordnance Department—Refund if not paid to remittee.

Enright, Lance-Corporal J., 59th Foot—Payment to the remittee.

Foord, Mrs. *Eliza Elizabeth*—Alteration of name to *Ann.*

Hallisey, Private M., 39th Foot—Paid.

Hodgins, Sergeant W., 40th Foot—Savings bank balance.

Kelly, Sergeant C., 1-18th Foot—Payment to the remittee.

Kirk, Private J., 92nd Highlanders—Returned to India.

Teesdale, Private G., 2-22nd Foot—Enquiry about payment to remittee.

REMOUNT DEPARTMENT.—Office of Superintendent, Horse-Breeding Operations—Adjustment of charge for stationery.

AGRICULTURAL.
Condition of Coimbatore district.
Ferry and bridge toll—See *Commissariat—Carriage.*
APPOINTMENTS.
Officers—Established strength to accompany each Madras regiment—See *Field Operations—Kabul.*
Sanitary officer, special, for each column of the force not required—See *Field Operations—Kabul.*

Adye, Lieutenant A., 5th Infantry, Hyderabad Contingent, volunteer for field service—See *Field Operations—Kabul.*
Arbuthnot, Brigadier-General C. G., R.A., to Artillery of General Stewart's Division—See *Field Operations—Kabul.*
Baines, Captain J. E., 2-6th Foot, volunteer for field service—See *Field Operations—Kabul.*
Blair, Major W. F., R.E., at Commander-in-Chief's disposal, for employment as field engineer—See *Field Operations—Kabul.*
Bruce, Colonel E. J., R.A., to command siege train, Lieutenant-General Stewart's Division—See *Field Operations—Kabul.*
Featherstonhaugh, Captain A., R.E.—Sub-marine mining duty at Bombay.
Finnis, Major J., 3rd Punjab Infantry, volunteer for field service—See *Field Operations—Kabul.*
Graham, Major G. F. J., District Superintendent of Police, Shahjahanpur, volunteer for field service—See *Field Operations—Kabul.*
Hayter, Major C., M.S.C., volunteer for field service—See *Field Operations—Kabul.*
Hoskyns, Lieutenant C., R.E., Public Works Department., at Commander-in-Chief's disposal—See *Field Operations—Kabul.*
Lanning, Captain A. R., R.A., as adjutant of siege train, Lieutenant-General Stewart's Division—See *Field Operations—Kabul.*
Newmarch, Major O. R., Officiating Accountant General, as Accountant General, Military Department.
——————— Deputy Accountant General, Military Department—Date as Accountant General, Military Department.
Noble, Major W. H., Secretary, Special Ordnance Committee, as staff officer to siege train—See *Field Operations—Kabul.*
Onslow, Lieutenant G. C. P., R.E., at Commander-in-Chief's disposal—See *Field Operations—Kabul.*
Orr, Lieutenant W. J., 16th Bombay Native Infantry at Foreign Department's disposal, for employment with Bhopal Battalion—See *Field Operations—Kabul.*
Ottley, Captain J. W., R.E., volunteer for field service—See *Field Operations—Kabul.*
Smith, Lieutenant H. W., R.E., at Commander-in-Chief's disposal—See *Field Operations—Kabul.*
Stevens, Lieutenant C., 1st Madras Light Cavalry, volunteer for active service—See *Field Operations—Kabul.*
Triphook, Captain S B., 1-12th Foot, as extra staff officer for passing troops and stores through Jhelum—See *Field Operations—Kabul.*
ACCOUNT DEPARTMENT.—On departure of Colonel J. G. Touch and Captain J. A. Miley on furlough, and on return from furlough of Lieutenant-Colonel W. S. Hunt.
Paymastership—Committee formed, owing to Colonel A. Hill, 34th Foot, having taken over duties of station staff officer, Ranikhet.

Carter, Major C. A. E. S., Military Accountant, as Examiner of Commissariat Accounts, Expeditionary Force—See *Field Operations—Kabul.*
Cowper, Captain H. H. P., Military Accountant, 2nd class, 1st grade—Assumption of place in department on return from furlough.
Gillilan, Colonel T., Controller of Military Accounts, Madras—Vacation on attaining colonel's allowances.
Hunt, Lieutenant-Colonel W. S., Military Accountant, 2nd class, 2nd grade, assumed charge of Pay Office, Madras, on return from furlough.
ARMY REMOUNT DEPARTMENT.—Examination tests for Stud Department—Modification.

Daly, Lieutenant E. D. H., Officiating junior assistant superintendent—Continued retention during Major Capel's absence.
Smith, Lieutenant-Colonel H. C., Superintendent, Reserve Remount Depôt, Saharunpore, appointed Remount Agent, North-Western Provinces and Punjab.
ARMY STAFF.—Artillery Branch, Adjutant General's Department—Permanent addition of officer.
Chief of the Staff unnecessary at present—See *Field Operations—Kabul.*

Anderson, Captain A. D., R. A., to be artillery brigade-major, Lieutenant-General Stewart's Division—See *Field Operations—Kabul.*
Kinloch, Major A. A. A., 4-60th Rifles, as assistant quartermaster general to Lieutenant-General Maude's Division—See *Field Operations—Kabul.*
Nicholson, Captain M. H., brigade-major, Kurrachee, as brigade-major, Quetta Field Force—See *Field Operations—Kabul.*
Saward, Captain M. H., Officiating Deputy Assistant Adjutant General, Royal Artillery in India—Confirmed.
Young, Captain H. R., 39th Foot, to officiate as brigade-major, Rawal Pindi.
CIVIL.—Officer as transport agent, Jhelum Railway terminus—See *Field Operations—Kabul.*

Cody, Surgeon-Major T., Bombay medical establishment, now under Baroda State, replaced at Bombay Government's disposal.
Halpin, Surgeon A. J., in temporary medical charge, Northern Bengal State Railway establishment, replaced at Commander-in-Chief's disposal.
Loch, Captain W., A D.C to His Excellency the Viceroy, at Foreign Department's disposal, for employment as Officiating Principal, Mayo College, Ajmere.
McDonnel, Surgeon J. O., Officiating Civil Surgeon, Maldah, replaced at Commander-inChief's disposal.
Searle, Colonel G. A., M.S.C., not required by Public Works Department on expiry of leave.
Spry, Surgeon-Major W. H., 18th Native Infantry, also to be temporarily in charge of civil station, Jalpaiguri.
St. John, Major O., R E, on special political duty at Quetta, and as political officer with General Stewart's Column—See *Field Operations—Kabul.*
Walker, Colonel J. T., R.E., Surveyor-General of India—Retention till he succeeds to colonel's allowances.

APPOINTMENTS—*contd.*

CIVIL—*contd.*—Weir, Surgeon P. A., 5th Bengal Cavalry, also to be in medical charge, Bundlecund political agency.

Young, Captain G. F., Officiating Cantonment Magistrate, Ferozepore, at Commander-in-Chief's disposal.

COMMISSARIAT DEPARTMENT.—Officers for field transport duty under Commissary] General—See *Field Operations—Kabul.*

In place of Colonel W. B. Seton, Deputy Assistant Commissary General, Bombay, proceeded to Mooltan on field service, refused.

Lewis, Lieutenant T. L.,
Spence, Lieutenant M. R.,
Wingate, Lieutenant G.,
} Sub-Assistant Commissaries General on probation, confirmed.

COMMISSIONS.—Dayrell, Major T.,
Grant, Major F. W.,
Irwin, Major L. B.,
Webster, Major H. W.,
} S.C.,—Recovery of stamp duty.

Macpherson, Lieutenant D. A. A., Officiating Military Accountant, 2nd class, 2nd grade, refused value of commission.

GARRISON INSTRUCTION.—MORRIS, Captain G. T., 3rd Bengal Cavalry, as garrison instructor.

MEDICAL DEPARTMENT.—Officers proceeded to India to fill vacancies on Indian establishment—List.

Brown, Surgeon-Major J. B. S., Medical Store-keeper, Allahabad—Secretary of State's refusal to interfere with decision declining promotion to administrative grade.

Govan, Surgeon-Major G. M., 3rd Goorkhas—Promotion to administrative grade negatived.

Jameson, Surgeon-Major J. L., } to superintendence of Peshawar and Allahabad circles, respectively, as
Lundey, Surgeon-Major E. L., } officiating deputy surgeons-general.

Mackinnon, Mr W. M.—Non-acceptance of his services as dental surgeon to field forces—See *Field Operations—Kabul.*

ORDNANCE DEPARTMENT.—Artillery officers not willing to accept—except Lieutenant W. D. B. Fenton—See *Field Operations—Kabul.*

Commissaries, 3rd class—Additional temporary—in view to depute officers for field service—See *Field Operations—Kabul.*

Dobie, Lieutenant H, 12-9th Royal Artillery, ordered for duty at Peshawar arsenal—See *Field Operations—Kabul.*

Fenton, Lieutenant W. D. B., R.A., temporarily as 3rd class commissary—See *Field Operations—Kabul.*

PERSONAL STAFF —Aides-de-camp not allowed to brigadiers-general—Case of Brigadier-General R. Phayre—See *Field Operations—Kabul.*

Biddulph, Lieutenant S. J, 34th Foot, as A. D. C. to Major-General M. A. S. Biddulph, commanding Quetta Column—See *Field Operations—Kabul.*

Chamberlain, Lieutenant N F. F., squadron officer, 2nd Central India Horse, as orderly officer and officiating A. D. C. to General Officer Commanding Kohat Column—See *Field Operations—Kabul.*

Dean Pitt, Captain D. C., A. D. C to His Excellency the Governor of Bombay, also to officiate as orderly officer to Brigadier-General R. Phayre.

Hamilton, Lieutenant G. H. C., 14th Hussars, as extra A. D. C. to Lieutenant-General Sir Sam Browne—See *Field Operations—Kabul.*

Stewart, Lieutenant N. R., 68th Foot, as A. D. C. to Lieutenant-General D. M. Stewart, commanding 1st Division, Field Force.

Wilson, Lieutenant G. F., R.E., Assistant Engineer, 1st grade, North-Eastern System of State Railways, temporarily at disposal of Lieutenant-Governor of Bengal.

REGIMENTAL.—Medical officer allowed for each battery and garrison artillery—See *Field Operations—Kabul.*

3rd and 2nd Cavalry and 6th Infantry, Hyderabad Contingent.

4th Punjab Infantry, Punjab Frontier Force.

Brereton, Surgeon S. M., 9th Bengal Cavalry, at Commander-in-Chief's disposal on arrival of regiment at Bombay.

Burn Lieutenant A. P., 33rd Native Infantry, at Foreign Department's disposal, for appointment to Mhairwarra Battalion.

Corbett, Surgeon J. L, officiating medical officer, 33rd Native Infantry, temporarily at Foreign Department's disposal, for employment as officiating medical officer, Bhopal Battalion.

Hastings, Captain F. E, 2nd Sikhs—Application for appointment as wing-commander or 2nd-in-command of proposed new regiment—See *Field, Operations—Kabul.*

Heathcote, Lieutenant-Colonel M., 17th Bengal Cavalry, assistant quartermaster general to Lieutenant-General Maude's Division, to rejoin his regiment—See *Field Operations—Kabul.*

King, Lieutenant R. A. C., B-3rd Royal Artillery, to do duty with No. 3 Peshawar Mountain Battery—See *Field Operations—Kabul.*

Martin, Lieutenant A. R, wing officer, 5th Goorkhas, as adjutant.

Orr, Lieutenant W. J., acting sub-assistant commissary general, temporarily at Foreign Department's disposal, for employment with Bhopal Contingent.

Passy, Lieutenant D. D., 4th Madras Native Infantry—Remarks on his appointment as officiating wing officer and quartermaster.

Penton, Lieutenant A. P., officiating subaltern No. 1 Field Battery, Hyderabad Contingent, as subaltern No. 3 Field Battery.

Salmon, Captain W. H., wing officer, 6th Infantry, Hyderabad Contingent; also to act as adjutant.

VETERINARY DEPARTMENT.—Anderson, Veterinary Surgeon J, on special duty, Lucknow, for further period in connection with cattle disease enquiries in Oudh.

NATIVE ARMY.—Commissions—Sent to Controller of Military Accounts.

Form of commissions for Native officers of Indian army—Copies printed by Surveyor General.

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Bengal Sappers and Miners
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9th Native Infantry
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} Promotion.

Ahmed Ali Khan, praying to be sent with his relations on field service—See *Field Operations—Kabul.*

Gurdut Sing, volunteering for field service and to bring recruits—See *Field Operations—Kabul.*

Mohomed Hossain Khan, Jessaldar, 7th Bengal Cavalry, volunteer for field service—See *Field Operations—Kabul.*

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and ammunition for apprentices at Dehree training school.
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——— for Punjab constabulary—See *Equipment—Police.*
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——— Victoria smooth-bore, for the Chief Commissioner, Ajmere.
——— Martini-Henry, brought from England by garrison batteries, &c.—See *Field Operations—Kabul.*
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Martini-Henry carbines. Issue to H-1st Royal Artillery and B-B Royal Horse Artillery.
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Rifles, Martini-Henry, for royal artillery in Bengal—See *Equipment—British Troops.*
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——— Bhopal Battalion armed—See *Field Operations—Kabul.*
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——— in lieu of Martini-Henry carbines for garrison batteries coming out—See *Field Operations—Kabul.*
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——— for Executive Engineer, Mahanadi Division.
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and periodicals, European and American, for army and departments under Military Department—Resolution.

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British Burma Gazette Index for 1870, 1871, and 1872, received.
"Hand-book for the siege train," by Major W. H. Noble, R.A.—Publication and issue—See *Field Operations—Kabul.*
Indexes with key-words—Compilation in departments under Local Governments and Administrations recommended.
"Manual and firing exercises for the Henry carbine" promised by Secretary of State—Periodicals, &c., required for office of Surgeon General, Indian Medical Service—Continuance of supply in 1879-80 by Messrs. Thacker, Spink & Co
Rules for transport trains—Copies sent to Bombay Government—See *Field Operations—Kabul.*
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INDENTS AND ESTIMATES.—Indents to state number of regiments, &c., whose requirements form basis of calculation as to number of copies required.
MILITARY.—Rules for guidance of field transport train officers—See *Field Operations—Kabul.*
NEWSPAPERS.—Indian Medical Gazette—Subscription for 1879 to Messrs. Wyman & Co.
ORDERS.—Army List, *Gazette of India*—Supply of copies to Additional Examiner of Commissariat Accounts, Umballa.
G. G. Os. & G O. C C.—Supply to Secretary of State.
List of changes in war material—See *Ordnance—Stores.*
Royal artillery regimental orders, W. O. auxiliary and reserve forces circulars, and Horse Guards general orders for October and November 1878—Supply by Secretary of State.
War Office Form No. 263—Supply of copies to Executive Engineer, Sialkot Division.
PROCEEDINGS.—Monthly and annual—of departments of Government of India—Uniform plan of preparation.
REGULATIONS.—Bengal Army—Copy for Officer Commanding 14th Madras Native Infantry.
Bengal Army—with corrections sent to General Officer Commanding 2nd Division, Peshawar Valley Field Force.
Revised section 5 "General Staff Officers" approved with modifications.
Substitution of rules in G. G O. No. 531 of 1864 for paragraphs 361, 367, regarding examination tests for Stud Department.
Native Army—Advance to Major Mackinnon for expenses in preparing translations.
WAR OFFICE FORMS.—Nos. 298 & 1114—(Annual return of sick and wounded—Annual confidential report on officers)—Distribution.

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——— ordered on field service—Compilation of papers—See *Field Operations—Kabul.*
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Knee-boots for I-A Royal Horse Artillery sanctioned—Officers prohibited obtaining private supply in future.
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In charge quartermaster, late 11th Brigade Royal Artillery, returned to Alipore Agency.
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Surplus, in charge of quartermaster, late 11th Brigade Royal Artillery, returned to Army Clothing Agency for re-issue to other batteries.
REGULATIONS—For British troops serving in India—Revised publication.
Scale for recruits enlisted in India—Embodiment in revised Code.
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Gordon, Brigadier-General W. S. C., brought permanently on brigade staff.
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Forbes, Lieutenant-General J., Bombay Cavalry, commanding Mhow Division, to complete tour of command.
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Hibbert, Captain J., Deputy Assistant Commissary General, Bombay,
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Rubie, Honorary Captain P., Commissariat Department, reported fit for further service.
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————for troops arriving at Bombay from England—Secretary of State asked for—
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Sanderson, Mr. G. P., appointed Superintendent of Kheddahs, Dacca.
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Narain Dass *versus* Jullundur Cantonment Committee } for compensation for land—Government Advocate, Lahore, to take up case.
Sooklall, trial, for defaming Executive Commissariat Officer, Umballa, postponed.
Seetul, sepoy, 3rd Native Infantry, sentenced to imprisonment for house-trespass—Judgment.
COURTS-MARTIAL.—District—Original proceedings sent to Judge Advocate General, London.
DESERTERS.—Naik from 2nd Punjab Native Infantry and sepoy from 1st Punjab Native Infantry with rifles.
Zakkakhels with rifles from Guide Corps—Report.
INDIAN ARTICLES OF WAR.—Extension to camp-followers and others not strictly officers or soldiers while serving out of British India.
MAPS.
Railway—of India—Distribution.
MEDALS.
List of war—conferred on Indian army—Copies sent to Secretary of State.
Sutlej ribbon promised by Secretary of State.
ANNUITIES.—Tonge, W., Transport Sergeant-Major, granted good service medal and annuity; declined to Sergeant-Major Cadd and Aire and Sergeant McDermott.
BHOOTAN.—31st Punjab Native Infantry—Unclaimed, received.
Goolab Singh, Shere Singh, } sepoys, 31st Native Infantry—Duplicate sent.
Juggobundhoo, constable, deceased—No heirs, received.
CHINA.—Burrows, late pensioned Sergeant-Major—Medal sent to widow.
LOOSHAI.—Hurgobin Singh, Hurria Ram, } sepoys, 44th Native Infantry—Duplicate sent.
N. W. FRONTIER—Jowaki Afridis—Recommended to the Secretary of State.
3rd Bombay Native Infantry—Sent
Farquhar, Surgeon-Major T., Bengal establishment, retired—India with clasp will be issued.
PUNJAB.—Sheik Nedie, 3rd troop, 2nd Bengal Horse Artillery—Certificate that the Punjab medal with Goojerat and Chillianwalla clasps was awarded to him.
UMBEYLA.—Allyar Khan, Jemadar, Bhawalpur Contingent—Duplicate sent.
Rohilmula, sepoy, 6th Punjab Infantry—Duplicate sent.
MEDICAL DEPARTMENT.
Base field hospital in Peshawar Valley—Formation—See *Field Operations—Kabul.*
Clerks—Military Department office—Certificates for absence.

MEDICAL DEPARTMENT—*concld.*
Depôt hospital at Kohat—Formation—See *Field Operations—Kabul.*
———— Mooltan—Formation—See *Field Operations—Kabul.*
———— Thull for European and Native soldiers—Formation—See *Field Operations—Kabul.*
Details of arrangements—See *Field Operations—Kabul.*
Field hospital—Necessity for establishing at Rajanpore—See *Field Operations—Kabul.*
General hospital site—See *Field Operations—Kabul.*
Officer allowed for each battery and garrison artillery—See *Field Operations—Kabul.*
Officers—Number to be reserved with European and Native troops for miscellaneous duties in the field—See *Field Operations—Kabul.*
Pay—Gubbins, Surgeon W. L., staff surgeon civil charge—Chakrata allowance refused.
Précis of field service arrangements by Surgeon General, British Forces, issued for trial—See *Field Operations—Kabul.*
AMBULANCE.—Camel kajawah, Lieutenant J. V. Hunt's pattern, to be made up and adopted—See *Field Operations—Kabul.*
ESTABLISHMENTS.—Cutler, Native, not to be employed with each field column—See *Field Operations—Kabul.*
Doolie-bearers on field service to be supplied with sodawater bottle covered with leather—See *Field Operations—Kabul.*
Langree entertained for depôt hospital, Native troops, Mooltan—See *Field Operations—Kabul.*
Medical store depôt, Madras—Temporary clerks not made permanent subject to report after 12 months.
Servants, extra, not required for field hospitals, if authorized—Scale accompany regiments and batteries—See *Field Operations—Kabul.*
Sweeper for detachment 3rd Native Infantry, Benares—Entertainment.
HOSPITAL EQUIPMENT—Clothing rules for better care and custody.
Scale—See *Field Operations—Kabul.*
Kajawahs for wounded and sick men—Construction at Ferozepore arsenal, sanctioned.
Mule trunks for carriage of hospital stores on line of march and on service—Trial in Bombay.
———— pettarrahs, and medical companions for conveyance of medical stores on line of march—Pattern.
———— for stores for troops going on service—Public Works Department asked to make up—See *Field Operations—Kabul.*
Tents, scale—See *Field Operations—Kabul.*
INDENTS AND ESTIMATES.—Chloroform for Madras promised
Stores for the three presidencies during 1880-81—Estimates sent to Secretary of State.
OFFICERS.—Admission into service in February 1879.
Surgeons—Admission to Indian Medical Service.

Fairland, Surgeon E. J., Staff Surgeon, Lucknow, to accompany Sir Neville Chamberlain to Calcutta.
Owen, Surgeon C. W., Bengal establishment—Secretary of State's approval to his accompanying Sir John Strachey to England
PAY.—Officers attached to troops on the field to draw unemployed rate—See *Field Operations—Kabul.*

Fairland, Surgeon E. J., 13th Hussars—Staff salary for charge of divisional and brigade staff, Lucknow.
REGULATIONS.—Bengal—Part I—Inclusion of order for better care and custody of hospital clothing
STORES.—Apparatus for transfusion of blood—Dr. Roussel's—Further trial in Mayo Hospital, Lahore.
Instruments, proposed local manufacture in Bengal.
———— simple, manufacture in Bombay Medical Store Depôt.
Medical officers responsible for proper custody and use.
Medicine supply arrangements for 83rd Bombay Native Infantry—See *Field Operations—Kabul.*
Pocket case of surgical instruments—Issue on payment to Surgeon-Major A. F. Bradshaw, Surgeon to Commander-in-Chief.
Salicylic acid and salicylate of sodium—Supply by Secretary of State.
Supplied to Amir of Kabul—Adjustment of cost.
———— to local charitable dispensaries to be charged for.
Surgical issue and surgical wadding—Trial.
SUBORDINATE.—Apothecaries of Bengal and Madras establishments recommended for honorary rank of surgeon.
Dismissals.
Apothecary class—Graduates of Calcutta Medical College and Lahore Medical School—Returns not required.
Hospital apprentices, passed, going on service, allowed soldier's field ration—See *Field Operations—Kabul.*
———— Loan of extra blanket, waterproof sheet, and great-coat—See *Field Operations—Kabul.*
Students, 2nd year's military class, Calcutta Medical College, not required for duty with troops in the field—See *Field Operations—Kabul.*

Connolly, Apothecary H. C., promoted to honorary rank.
Daley, F. J., Unpassed Hospital Apprentice, 70th Foot—Loan of extra clothing, bedding, &c.—See *Field Operations—Kabul.*
Hughes, late Hospital Apprentice A. B.—Nothing due by him to the State.
Reid, Assistant Apothecary J., at Commander-in-Chief's disposal.
Vyall, J., Garrison Apothecary, Chunar—Retention of appointment refused.

Dismissals—Hospital assistant class, Native medical pupils, and hospital assistants.
Hospital assistant for each battery and garrison artillery—See *Field Operations—Kabul.*
Hospital assistants and Native medical pupils—Date of passing English qualification examination.
———— Passage to Rangoon.
Men with a knowledge of English for hospital assistant class—Modification of orders for securing—unnecessary.
Promotions to passed medical pupils.

Mahomed Hatheem, Hospital Assistant—Resignation.
Syud Abdool Rohoman, Hospital Assistant, to be placed at Bengal Government's disposal.

MILITARY BUILDINGS.
Accommodation for presidency medical store depôt.
Bathing-places in lines of 8th Native Infantry, Poona—Construction refused.
Bells-of-arms—None at Deesa.
Building known as Presbyterian Church, Subathu—Hire for school accommodation.
Bungalow No. 23 at Umballa, lately occupied by cattle sergeant—Sale.
Clothing Agency, Alipore—New tailor's shop—Construction deferred.
Custody and supply of ammunition to army.
Huts for lascars of Rawal Pindi arsenal to be built by themselves.
Hut, new, at Jutogh for a scripture reading-room—Construction.
Latrines constructed for troops and followers halting at Saharunpore—Charge passed—See *Field Operations—Kabul.*
Latrines for Agra Ordnance Ammunition Depôt—Construction.
Provincial telegraph line from Rajanpur to Mithankot—Extension postponed—See *Field Operations—Kabul.*
Ration sheds at hill stations in India—Proposed provision.
Recreation-room and double-skittle shed on Ross Island—Construction.
Repairs to Remount Depôt will not be carried out this year.
Requirements for 1879-80.
Road at Ali Musjid and at Lundi Khana in bad state—Working party sent—See *Field Operations—Kabul.*
Road, Dagshai cantonment—Charge.
Roads between Jacobabad and Shapur—Condition and restoration.
Road from Khanpur to Chachar and Mithankot to be put in proper condition for passage of troops to Quetta—See *Field Operations—Kabul.*
———Peshawar to Hurri-Sing-ka-Boorj—Metalling—See *Field Operations—Kabul.*
—— between Rawal Pindi and Kushalghur ordered to be repaired, to enable bullock train to ply—See *Field Operations—Kabul.*
——Rawal Pindi-Kohat—Necessity for repair and maintenance in repair.
Saddle and store rooms in cavalry barracks at all stations—Provision.
Sheds near Jhelum railway terminus for protecting military stores, &c.—Provision—See *Field Operations—Kabul.*
Shelter for European and Native troops and stores at Quetta during winter—Provision—See *Field Operations—Kabul.*
Military works—Statements of expenditure for August 1878.
Urinaries for new artillery barracks, Mhow—Construction.
——— under construction—Substitution of quarterly for monthly progress reports.
APPROPRIATION.—British detachment wash-house disused, Chunar, as wash-house and privy for Sergeant Assistant Warder, State Prison.
Guard-room recently constructed at Subathu.
Hospital in old Native cavalry lines, Morar, as station staff hospital permanently.
Rooms on upper storey of Dhullunda Garrison Hospital—Conversion into permanent latrines.
Wards, Nos. 3 and 4 European Infantry Family Quarters, Kamptee, as quarters for station butcher.
No. 9 Single Men's Barracks at Agra as hospital.
BRIDGES.—Boat, permanent, at Kushalgurh—Maintenance.
Erection over Kosi at Dekli and Kumeria on the Ramnagar and Ranikhet road—Opinion asked.
COMMISSARIAT.—Engine 12 H.-P.—Transfer from Umballa Division, Public Works Department, to Commissariat Department.
Mill machinery at Rawal Pindi—Setting up.
Sheds at Barrackpore for slaughter cattle for Port Blair—Construction.
DEMOLITION.—In Native Infantry lines, Neemuch.
HOSPITALS.—Native followers, Jutogh—Question of providing increased accommodation postponed.
NATIVE LINES.—Dâk horse stables at Dehra—See *Horses—Remounts.*
Detachment Native Infantry, Simla—Additional accommodation.
NATIVE LINES.—In Bombay presidency—Proposed construction by Public Works Department.
Marine Battalion detachment, Gwadar—Incidence of cost for making improvements.
Syces of Royal Horse Artillery, Morar—Removal and grant of full hutting-money to men refused.
13th Native Infantry, Agra—Advance for repairs.
35th Native Infantry, Allahabad—Full hutting-money refused.
ORDNANCE—Harness and Saddlery Factory—Extension.
STABLES—Horse Infirmary—Assembly of Committee for modifying present standard design.
New—at Sialkot and Morar—Information as to appearance of Ludhiana disease.
MILITARY DEPARTMENT.
Credit for Rs. 1,000 for telegraph and other charges—Application.
Crooked Lane, No. 2—Enquiry as to possession by the servants.
Repairs to drain expedited.
Telegrams to Captain Deane (Camp Lahore), erroneously re-addressed to Military Department, Calcutta—See *Field Operations—Kabul.*

Collen, Captain E. H. H., Assistant Secretary—See *Furlough.*
Crookshank, Captain A., Officiating Secretary at Calcutta, detailed for Governor General's camp, Lahore—See *Field Operations—Kabul.*
Deane, Captain T., Officiating Deputy Secretary, to go with small office from Simla to Governor General's camp, Lahore—See *Field Operations—Kabul.*
ACCOUNTS BRANCH.—Accountant General and Consulting Naval Officer's offices—Statement of work done sent to Committee for revision of Secretariat establishments.

Newmarch, Major O. R., Deputy Accountant General, Military Department—Date of appointment.
——————— Officiating Accountant General—Appointment as Accountant General, Military Department.
ADJUSTMENTS.—Telegraph charges objected to in absence of receipts.
CONSULTING NAVAL OFFICER.—Office of—Statement of work done in the—
ESTABLISHMENT.—Bills for September 1878 paid at Simla Treasury—Objections by Accountant General, Bengal, to items.
Medical certificates to be granted by officers in charge of hospitals and dispensaries.

Murray, Captain J., Chief Clerk, not in receipt of any pension.
OFFICE.—Laid Imperial paper—One ream for—
Present area of accommodation and probable requirement.

MISCELLANEOUS.

Bullock train formations—See *Field Operations—Kabul.*

Photographer to siege train at Sukkur—See *Field Operations—Kabul.*

Anstin, Mr. C, special correspondent, *London Times,* allowed to join Peshawar Force—See *Field Operations—Kabul.*

Blane, Colonel Sir Seymour, Bt., special correspondent, allowed to join Peshawar Force—See *Field Operations—Kabul.*

Boyle, Mr. F., special correspondent, *London Standard,* allowed to join Quetta Force—See *Field Operations—Kabul.*

Cooper, Mr. J. H., offering to raise a Marine Contingent for present field service—See *Field Operations—Kabul.*

Cory, Colonel A., Retired List, to join General Stewart's Division as special correspondent—Scale of baggage and camp equipage to be allowed—See *Field Operations—Kabul.*

Coulson, Mr. J. B. B., refused permission to accompany troops as spectator—See *Field Operations—Kabul.*

Hensman, Mr. J., special correspondent, *Pioneer,* allowed to join Peshawar Force—See *Field Operations—Kabul.*

Macpherson, Mr. M., to join Kohat column as special correspondent—See *Field Operations—Kabul.*

Simmons, Mr. J., offer of services in managing a captive balloon for reconnoitring purposes not accepted—See *Field Operations—Kabul.*

Simpson, Mr. W., special correspondent, *Illustrated London News,* allowed to join Kuram column—See *Field Operations—Kabul.*

Stewart, General D. M, Commanding 1st Division, Quetta Column—Assistance given by subordinate department, Bombay—See *Field Operations—Kabul.*

Vaughan, Lieutenant-General J. L., special correspondent of the *Times,* allowed to join Expeditionary Force—See *Field Operations—Kabul.*

Walker, Mr. P. F., special correspondent, *Bombay Gazette,* allowed to join Peshawar Force—See *Field Operations—Kabul.*

Weir, Dr., to join Kohat column as special correspondent—See *Field Operations—Kabul.*

Williams, Mr. C., special correspondent, *Morning Advertiser,* allowed to join General Stewart's column—See *Field Operations—Kabul.*

ORDNANCE.

Artillery officers not willing to be employed in department except Lieutenant W. D. B. Fenton—See *Field Operations—Kabul.*

Coal for Kirkee Factory—Description.

Commissaries, 3rd class—Additional temporary appointments—See *Field Operations—Kabul.*

Commissary, 3rd class, with warrant officer, to be sent to Quetta—See *Field Operations—Kabul.*

Machinery for protecting iron from rust, Barff's—Specification and drawings asked for from England.

Officers named for duty in the field—Movements—See *Field Operations—Kabul.*

32-pr. gun and 66-pr. howitzer in 2 parts of 9 cwt. each for elephant carriage—Proposed construction and capacity, elephant for the load.

Dobie, Lieutenant H., 12-9th Royal Artillery
Devine, Bombardier " "
Wills, Corporal F. " "
} Ordered for duty at Peshawar Arsenal—See *Field Operations—Kabul*

Walker, Major A., Superintendent, Dum-Dum Small-Arm Factory, to study the manufacture of warlike stores while on furlough.

CAMP EQUIPAGE—For troops going on service from the several presidencies—Supply arrangements—See *Field Operations—Kabul.*

Lascar pâls for men of General Maude's Division whilst on picquet duty in Khyber pass—Supply—See *Field Operations—Kabul.*

——— from Peshawar Arsenal for E-3rd Royal Artillery in camp—Irregular issue.

——— for field staff hospital, Camp Hurri-Sing-ka-Boorj.

——— Pâls, lascar, of Hazara battery—Alteration.

—— sepoy, for the Postal and Telegraph Departments with the Kuram Field Force.

Sepoy tents and lascar pâls for Field Commissariat Department—Detailed information as to requisition called for—See *Field Operations—Kabul.*

Tents, European privates', for Jamrud Post Office—See *Field Operations—Kabul.*

——— for surplus men of depôts, 12th and 28th Native Infantry, at Jullundur.

—— for the Calcutta Fancy Fair of 1879.

———hospital purposes—Scale—See *Field Operations—Kabul.*

———Madras—Local manufacture; all to conform to standard patterns.

——wards and staff of Kidderpore house during its repair.

——Loan to Agricultural and Horticultural Gardens, Alipore.

—— European privates'—Loan to Telegraph signallers, Lahore.

—— N. P., European privates'—Conversion of outer flies into pâls undesirable.

—— and pâls, sepoy, 20th Punjab Native Infantry—Charge for providing flaps sanctioned.

—— small, with necessary tent—Loan to Sir Alexander Arbuthnot, Member, Viceroy's Council.

—— sergeants' additional, for field telegraph offices—See *Field Operations—Kabul.*

——, staff sergeants', for post office at Huri Sing-ka-Boorj and Jamrud.

——— for field telegraph offices with General Stewart's column—See *Field Operations—Kabul.*

Adamjee Peerbhoy's offer to supply lascar pâls for Bengal presidency declined—See *Field Operations—Kabul.*

Watson, Colonel J., Commanding Punjab Contingent Force—Supply of tent and servants' pâl—See *Field Operations—Kabul*

ESTABLISHMENTS.—Ammunition Depôt, Mooltan—Extra writer for arrears of work connected with Kabul operations.

Armourers for Peshawar arsenal—Temporary entertainment and application to Bombay for others.

Depôt at Sukkur unnecessary.

Lascars to be sent with 6 3-inch howitzers to Sukkur—See *Field Operations—Kabul.*

Non-commissioned officer appointed magazine sergeant but subsequently returned to his battery—Travelling expenses borne by the State.

Pay while in hospital to two men of extra establishment, Foundry and Shell Factory, Fort William, who were injured doing their duty.

Sub-Conductor appointed to assist Transport Agent, Jhelum Railway Terminus, in despatching military stores—See *Field Operations—Kabul.*

Writer, extra, temporarily for office of Commissary of Ordnance, Fort William.

ORDNANCE—*contd.*
Pierson, Conductor J., completed course in Machinery branch, Woolwich arsenal.
Regan, Conductor P., instruction at Woolwich.
FACTORIES.—Engine, portable, high-pressure, sent from England for Ishapore—Particulars about—
Gunpowder Factory, Ishapore—Report of operations, 1877-78.
Tramway between Chitpore and Cossipore near Powder Factory—Extension.
INDENTS.—Ammunition for 6·3-inch howitzer.
Ammunition for siege train.
Bed—trial wrought-iron—for a 7-pr. R. M. L. gun of 150 lbs. manufacture.
Bengal, special, for guns, ammunition carriages, and other stores for R. M. L. siege trains and heavy batteries in three presidencies.
Carriages and equipment for 6·3-inch howitzers promised by Secretary of State.
Coal from England for Gunpowder Factory, Kirkee.
Equipment Regulations—Copies required by Madras and Bombay.
Forms (I. O), Indian Ordnance requisition—Introduction for use of siege train in the field.
For stores required for the three presidencies during 1879-80 sent to Secretary of State.
Guns, R. M. L., and carriages, wrought-iron, for siege trains and heavy batteries in India—Number demanded from England.
Howitzers, 6·3-inch—Advice of shipment of ten to Bombay.
Madras indent for coal complied with by Secretary of State.
Pistols, B. L. rifled, ·577 bore, with ammunition, for 1st Bombay Light Cavalry—Demand cancelled.
Plugs, steel, for pivots for 9-inch guns—Special indent sanctioned by Secretary of State.
Shells for 6·3-inch howitzer.
Siege train and heavy battery requirements of three presidencies—Final orders.
Special Ordnance Commission—Report called for by Secretary of State.
Stores—Annual—from Madras for 1878-79—Compliance with.
——— on account of Kabul expedition.
——— Annual—for 1879-80 sent to Secretary of State.
Wheels, spare 40-pr. siege train, to be made up locally.

Campbell, Colonel W.—Duties of President, Ordnance Committee, taken over from Major W. H. Noble.
ORGANIZATION—Arsenal, Belgaum—Question of abolition.
Arsenal, Ferozepore—Question of transfer.
——— Fort St. George—Question of position.
——— main, for Western India—Question of location, whether at Bombay or Kirkee.
——— Secunderabad—Question of abolition.
Depôts at Hyderabad Contingent, Aurungabad, Ellichpore, and Hingolee—Question of abolition.
Depôt—Proposed at Kirkee.
Factory, Cawnpore—Question of supply of harness, &c., to Madras and Bombay.
Foundry and Shell Factory, Cossipore—Proposed maintenance.
Gun-Carriage Factory, Bombay—Question of abolition.
Small-Arm Ammunition Factory, Kirkee—Question of extending—
Stores—Supply to depôts.
STORES—Ammunition boxes of field artillery—Adoption of spring lock besides hasp and spring turn buckle for securing lids.
Ammunition, Martini-Henry carbine, and camel slings to be sent from Bombay to Sukkur—See *Field Operations—Kabul.*
——— reserve to be maintained for each field column—Unnecessary carriage to be avoided—See *Field Operations—Kabul.*
Arms and ammunition for apprentices at Dehree Training School.
—— received damaged from England—Report on care taken in packing—
Carriages, travelling—Wrought-iron—for five 40-pr. R. M. L. guns sent from Bombay to Ferozepore—See *Field Operations—Kabul.*
——— wooden, smooth-bore siege for R. M. L. siege ordnance—Trial of converted—Rewards for recovery of shot and shell fired during experimental practice.
———, wrought-iron, horse and field batteries—Method of lettering.
——— limbers and wagons for 40 and 25 pr. R. M. L. guns and 6·3-inch howitzers, and platform wagon for heavy batteries—Working drawing and hand-books for their equipment asked from Secretary of State.
Cartridges, ball, for police of Junaghar State in Kattywar.
Clause 3066, War-Office List of Changes, 1st April 1877—Gunpowder service P²—Application to India.
Concentration of supply departments at army head-quarters or with Government on military operations being continued—See *Field Operations—Kabul.*
Enfield rifles, ammunition and accoutrements, &c.—Issue to Native States Contingent—See *Field Operations—Kabul.*
Engineer siege train, Sukkur—Commanding Engineer, 1st Division, to indent from Hyderabad arsenal—See *Field Operations—Kabul.*
Engineer—Tables of—See *Equipment—Native Army.*
For troops going on field service—Indents complied with from Peshawar arsenal—See *Field Operations—Kabul.*
Forges for siege trains and heavy battery on Mooltan Division and for heavy battery, Peshawar Field Force—See *Field Operations—Kabul.*
Fuzils and ammunition—Supply on payment to Meywar Durbar from Allahabad arsenal.
Gatling guns—Inclusion in siege trains in India.
——— with carriages and ammunition being sent from England—Number to be sent to Ferozepore and Mooltan—See *Field Operations—Kabul.*
Graphite for glazing gunpowder—Trial in factories in India.
Guns 9″ 12 ton—Statement of charges connected with transport to Madras.
—— four 40-pounder R. M. L., with carriages, sent to Gwalior to replace the B. L. carriages withdrawn—See *Field Operations—Kabul.*
Hand-book for the siege train—See *Field Operations—Kabul.*
Howitzer, 6·3-inch R. M. L.—Practice result report.
Howitzers, 6·3-inch, &c., to be sent to Ferozepore from Bombay on arrival from England.
——— 6·3-inch, with ammunition, carriages, &c., sent from Bombay to Sukkur and Ferozepore—See *Field Operations—Kabul.*
Hydraulic jack for Gunpowder Factory, Bombay.
———indented for from England—Explanation regarding non-receipt.
———issued to troops on payment—Rates for recovery of cost.
Kit bags, canvas, for General Roberts from Peshawar arsenal.

ORDNANCE—*concld.*
STORES (*contd*)—Lists of changes in war matériel—Application to India of clauses.
Martini-Henry ammunition, mark IV—Manufacture at Kirkee.
M. L. R. howitzers of 18 cwt. ten 6·3-inch wrought-iron supplied to Bombay—Examination papers.
Muskets and carbines, percussion, for the Nawab of Malaur Kotla—See *Arms—Native States.*
Oil bottles for Native cavalry armed with snider carbines.
Park—Movement to Sukkur—See *Field Operations—Kabul.*
Pattern for the three presidencies—Supply by Secretary of State.
Photographs—Supply from England.
Strengthening plates to gun-carriages with box girder axle-tree beds—Correction of order allowing—
Pebble powder manufactured at Madras—Experimental trial; and supply for trial of gunpowder sample from England.
Revolver, Adams', and ammunition received from England ex S.S. *Dorunda.*
R. F. G² powder, Kirkee manufacture, tested at Woolwich—Report from Secretary of State.
Rockets, 200 new Woolwich pattern, with machines—Secretary of State asked to send out—See *Field Operations—Kabul.*
Scabbard sockets damaged from defective packing—Report from the Secretary of State.
Scales and weight for batteries at Bombay, Kirkee, Mhow, and Aden.
Shells, common and shrapnel—Issue of sections for instructing royal artillery in India.
Shoes and nails, spare, in Bombay presidency for horses and mules—Distribution to 1st Division, Field Force, and Peshawar arsenal—See *Field Operations—Kabul.*
Shot and shell for 9 and 6 pr. guns—Number available in Ferozepore and Peshawar arsenals—See *Field Operations—Kabul.*
Required by the Inspector-General of Ordnance and Magazines, Bengal—Supply by the Secretary of State.
Returned by 2nd Battalion Royal Scots and 65th Foot to the Allahabad arsenal damaged—Officers in charge relieved of responsibility.
Siege train for 1st Division, Field Force—Formation—See *Field Operations—Kabul.*
——— to proceed *viâ* Sukkur—See *Field Operations—Kabul.*
Under provision by Director-General of Stores for India—Bi-monthly return forwarded by Madras and Bombay.
Under supply from England to Madras and Bombay—Bi-monthly returns to be regularly furnished.
Snider in lieu of Martini-Henry carbines for garrison batteries coming out—See *Field Operations—Kabul.*
Tarpaulins and flag for Fort Jamrud.
——— and telegraph wire to be sent with Madras Sappers and Miners going on service—See *Field Operations—Kabul.*
Trough, wrought-iron, for boiling guns—Explanation of refusal of Executive Engineer, Umballa Division, to receive—
Tulwars suitable for Native followers—Local purchase ordered—See *Field Operations—Kabul.*
Wheels for 6 3-inch howitzer carriages ordered to be made up at Fatehgarh Gun Carriage Factory.
——— 40-pr. siege train, Bombay, to adapt for carriages and limbers of 6·3-inch howitzers arriving from England.
Wood from the Nepal hills—Arrangements for procuring—
Working drawings of platform wagon for heavy batteries.
ORGANIZATION.
Working train—See *Field Operations—Kabul.*
BRITISH ARMY.—Married establishment of British soldiers in India—Question of reduction.
LOCAL CORPS.—Hillmen of Kumaon district—Formation unnecessary at present—See *Field Operations—Kabul.*
NATIVE ARMY.—Cavalry and Infantry, Bengal presidency and Punjab Frontier Force—Augmentation of strength—See *Field Operations—Kabul.*
Regiment for service in Assam—Proposed formation.
Sappers and Miners, Bombay—Augmentation of company ordered on service—See *Field Operations—Kabul.*
PAY AND ALLOWANCES.
Medical officers—See *Field Operations—Kabul.*
Officers of royal artillery—Sums payable in England under G. G. O. Nos. 716 and 913 of 1878.
Soldier-signallers travelling or employed on temporary duty at out-stations to receive fixed allowance when rations are not available.
Staff salary—Reduction for command of European veterans.
Arrears due to majors, Ordnance Department, payable in England—Rate of exchange.
Engineers, warrant and non-commissioned officers, clerks and inferior servants, detached on field service.
Of officers of royal artillery and royal engineers promoted to major under royal warrants of 5th July 1872 and subsequently.
Officers on field service to receive little cash, and the rest in transfer receipts payable in India—See *Field Operations—Kabul.*
——— for field transport duty under company G. L.—See *Field Operations—Kabul.*
——— promoted and allowed to remain in India.
——— Sums payable in England under G. G. O. Nos. 716 and 913 of 1878—Statements—Madras and Bombay.
——— Sums payable in England under G. G. O. Nos. 716 and 913 of 1878—Statement.

Alves, Captain J. M., R. A.—Charge against Indian revenues.
Corbyn, Reverend J. F., Chaplain, Abbottabad—Claim to tentage while on duty in the "gulleys," sanctioned.
Dean Pitt, Captain D. C., A. D. C. to Governor, Bombay—Full staff salary as A. D. C. while officiating as orderly officer to Brigadier-General R. Phayre.
Grant, Lieutenant H. F., 4th Hussars, for period he was in charge of horses, &c., after departure of regiment to England sanctioned.
Hammick, Captain H. V. A.
Bell, Captain S. W.
Onslow, Captain F. M. } —Kabul Mission during absence of Sir Neville Chamberlain, Envoy.
Jacob, Major, Superintendent, British Army Schools, Bombay—See *Schools—Allowances.*
Holberton, Lieutenant-Colonel T. N., Royal Horse Artillery
Prichard, Major H. F., 1st Brigade Royal Artillery } —Arrears as Commandant No. 1 Mountain Battery at Rajkot and No. 4 Light Field Battery at Hyderabad respectively sanctioned.
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Owen, Surgeon C. W., Bengal establishment, while absent with Sir John Strachey in England.
Passy, Lieutenant D D, officiating wing officer and quartermaster, 4th Madras Native Infantry—Staff allowance of wing officer refused.
Phayre, Colonel R., Commanding Nusseerabad Brigade, to draw pay as brigadier-general, 2nd class, and not substantive pay of appointment—See *Field Operations—Kabul.*
Taylor, Lieutenant-Colonel J. C., R A.—Arrears of pay—Rate of exchange.
Triphook, Captain S. B., 1-12th Foot—Extra staff officer for passing troops and stores through Jhelum—See *Field Operations—Kabul.*
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COMPENSATION.—Clarke, Major H. M. S., M.S.C., for loss of prospects, refused by Secretary of State.
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Ford, Honorary Lieutenant and Deputy Commissary J., Head Overseer, Gunpowder Factory, Ishapore—Application sanctioned.
Kennedy, Captain R. G., S C., refused expenses on transfer from Lucknow to Rawal Pindi to officiate as Deputy Assistant Quartermaster General.
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Abbott, Lieutenant H. E. S., R E., and party of Sappers and Miners employed at Agra.
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Hayes, Surgeon-Major W. H., late Deputy Commissioner of Singhboom—Special from civil department in addition to military refused.
Heera Sing, late sepoy, 26th Punjab Native Infantry, refused.
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APPOINTMENTS—ACCOUNT DEPARTMENT.
Reply to letter from the Government of India on the subject of making Lieutenant H. F. Cadell's services available for appointment to the Military Account Department
Report of the Controller of Military Accounts that Lieutenant H. F Cadell has satisfactorily passed the preliminary examination for appointment to the Military Account Department, forwarded to the Government of India.
APPOINTMENTS—EXAMINATIONS.
Sanction accorded to Captain Longley, 43rd Foot, being finally examined for appointment to the Army Pay Department.
APPOINTMENTS—EXCHANGES.
Government of India addressed on the subject of exchange between Captain A. E. W. Hemans, Madras Staff Corps, and Captain H. H. Kelly, 56th Foot.
APPOINTMENTS—PROMOTIONS.
Extract from a despatch from the Home Government, intimating that Surgeons Spence and Archdall passed their examinations for promotion to the rank of Surgeon-Major on the 28th January 1878, communicated to His Excellency the Commander-in-Chief.
APPOINTMENTS—REMOVALS.
Correspondence regarding the removal of Major A. E. Arbuthnot from his appointment of Officiating Squadron Commander, 1st Madras Light Cavalry.
Despatch from the Secretary of State, intimating that he has permitted Major A G. Murray to retire from the service on the half-pay pension of his rank, communicated to His Excellency the Commander-in-Chief.
Removal of Surgeon Warder from the service, directed.
APPOINTMENTS—RETIREMENTS.
Decision of the Government of India that the ruling relative to the pay and allowances admissible to Royal Artillery officers now retiring under the Royal Warrant of 6th September 1878, until gazetted in India, should be held equally applicable to Royal Engineer officers, communicated to the Acting Commander of the Forces and to the Public Works Department.
Retirements of Officers of the Indian Staff Corps and Local Service to be gazetted as "subject to Her Majesty's approval" and reported to the Secretary of State without delay.
Surgeon-Major H. M. Ross permitted to retire from the service on the 31st January 1879.
Telegram from the Home Government, giving the names of Royal Artillery and Engineer officers who retire under the Royal Warrant of 6th September 1878, and intimating the arrangements that should be made to relieve them of their present duties, communicated to the Acting Commander of the Forces for issue of the necessary orders, and to the Public Works Department.
Telegram from the Government of India, intimating that Colonels Wallace and Cookes retired and should be relieved at once from all military duties, communicated to the Acting Commander of the Forces.
APPOINTMENTS—TRANSFERS.
Decision of the Government of India, Public Works Department, to replace Colonel G. A. Searle's services, on the expiration of his leave, at the disposal of the Madras Government, communicated to His Excellency the Commander-in-Chief.
Major F. Kilgours' memorial, praying to be re-transferred to military duty, negatived, with certain observations.
ARMY LIST.
Value of copies of Army List supplied to the Military Secretaries to the Governor General of India and to the Governors of Madras and Bombay, and to the Aides-de-Camp to His Grace the Governor, directed to be borne by the Military Department.
BARRACKS AND BUILDINGS—MILITARY PRISONS.
Letter from the Quartermaster General on the subject of prison accommodation at Kamptee, forwarded to the Government of India.
BOOKS.
Supply of the books required by the Inspector General of Ordnance for distribution in the Ordnance Department, promised by the Home Government.
BOOKS—INDENTS AND ESTIMATES.
Extract from a despatch from the Home Government, promising to supply the books required by the Medical Department for 1879-80, communicated to the Surgeon-General, Indian Medical Department.
CANTONMENTS—CONSERVANCY.
Acceptance of the offer of the Madras Municipality to take over the conservancy of the Vepery Lines at a monthly charge of Rs. 100, sanctioned.
CLAIMS.
Extract from a despatch from the Home Government, intimating that the remittance in respect of Gunner W. Railton's clothing for 1859 is awaited, communicated to Controller of Military Accounts for report.

CLAIMS—BONUS COMPENSATION.
Letter from the Controller of Military Accounts, stating that a revised statement, showing the sums paid prior to 18th February 1861 by the officers of the Royal (Madras) Artillery on account of the Retiring Fund, is now under preparation and will be shortly submitted, communicated to the Home Government

CLOTHING—BADGES.
Addition of the badge of "The Sphinx" to the other devices and distinctions of the Madras Queen's Own Sappers and Miners, approved by the Home Government.

CLOTHING—BRITISH TROOPS.
Hawkes' helmets condemned, and the provision of wicker helmets under regimental arrangements as heretofore ordered.

CLOTHING—INDENTS AND ESTIMATES.
Cancellation of the demand for 30 kip butts hides in a requisition for necessaries for the 1st Battalion, 21st Regiment, intimated by the Home Government.

CLOTHING—NATIVE ARMY.
Application from the Officer Commanding 4th Light Cavalry, for the issue of overalls for 1880-81 in material, negatived.

CLOTHING—NECESSARIES.
Extract from a despatch from the Home Government, intimating that the War Office has been requested to address the necessaries for the 13th Battery, 8th Brigade, Royal Artillery, to Aden, communicated to the Clothing Department.
Report by the Director-General of Stores, regarding the inferior quality of the forage and glengary caps supplied to the 44th and 67th Regiments, communicated to His Excellency the Commander-in-Chief and the Superintendent, Army Clothing.

COMMANDS.
Despatch from the Home Government on the subject of removing the present ineligibility of Lieutenant-Generals to hold Divisional Commands and of the eligibility in future of Major-Generals to hold Brigade or District Commands, communicated to His Excellency the Commander-in-Chief.

COMMISSARIAT—CARRIAGE.
Provision of lanterns and the supply of oil and thread to the Commissariat bullock-carts, sanctioned.

COMMISSARIAT—CONTRACTS.
Messrs. Groves, Wait and Co.'s proposal to supply bread for the troops at Wellington at rates *ad valorem* of wheat, approved

COMMISSARIAT—MEDICAL SUPPLIES.
Supplementary grant of Rs. 2,177-1-9 required to meet expenditure on account of certain stores required by the Principal Medical Store-keeper, sanctioned by the Government of India.

COMMISSARIAT—RATIONS.
Orders passed on the rates of charge for malt liquor and rum issued to Staff Non-Commissioned Officers.
Ruling of the Government of India that free rations are only admissible to troops on service beyond the Bolan Pass, and not to escorts who merely proceed to Quetta and then return to India, communicated to His Excellency the Commander-in-Chief and Departments concerned.

COMMISSARIAT—SUPPLIES.
Report from the Director-General of Stores with reference to the non-arrival at Cannanore of the malt liquor shipped per *Avon* in January 1878, communicated to Commissary-General.
Retrenchment against the Commandant, Wellington Depôt, on account of malt liquor issued to the convalescents at an obsolete rate from 1st July to 14th August 1878, removed.

COMPLAINTS—OFFICERS.
Letter from the Government of India, requesting that paragraph 4 of the Home Department Notification No. 475 of 1874, which distinctly places "all officers, civil and military, under the direct control of the Superintendent of the Andamans," may be brought to the notice of His Excellency the Commander-in-Chief, Madras.

CORRESPONDENCE.
Resolution of the Government of India on the subject of the communication to the public of information which has come into the possession of a Government servant in his official capacity, communicated to His Excellency the Commander-in-Chief.

DISTRIBUTION OF ARMY—MOVEMENTS OF TROOPS.
Correspondence from the Government of India, requesting the Officer Commanding Pegu Division to hold in readiness a guard of thirty men, inclusive of Native Officers, to proceed to Mandalay for the protection of the British Residency there, communicated to the Acting Commander of the Forces.

DISTRIBUTION OF ARMY—RELIEFS.
Correspondence intimating the relief at Rangoon of the *Umballa* by the Steamer *Chinsura*, the former vessel having been pronounced unsuitable for trooping service, communicated to his Excellency the Commander-in-Chief and the Marine Department.
Letter from the Government of India, requesting early information of any alteration that may be deemed necessary in the reliefs that are to be effected by sea, recorded for guidance.
Movement of the second wing of the 29th Native Infantry by canal from Bezwada to Cocanada, and thence by sea to Vizagapatam, sanctioned.
Relief of the two Companies of the 43rd Light Infantry, stationed at Trichinopoly, sanctioned.
Telegram from the Government of India, intimating that the B Battery, D Brigade, Royal Horse Artillery, is not now required at Mooltan, and that the battery may be marched to Bangalore, communicated to the Acting Commander of the Forces.

DRILL AND INSTRUCTION—ARTILLERY.
Detachments of No. 11 Battery, 8th Brigade, Royal Artillery, at Rangoon and Thayetmyo, permitted to exchange places for instruction and practice with the 64-pounder guns at the latter place.

DRILL AND INSTRUCTION—GYMNASTICS.
G. O. C. C. of 1878 regarding the substitution of woollen jerseys for the red serge shirts now allowed to gymnastic instructors, and the issue of an additional pair of woollen socks to each instructor, extended to the Madras Presidency.

DRILL AND INSTRUCTION—TELEGRAPHY.
Correspondence from the Government of India regarding the pay of soldier signallers on field service, communicated to His Excellency the Commander-in-Chief.
Orders passed on correspondence regarding the instruction of British soldiers in electric telegraph signalling

EQUIPMENT.
Despatch from the Home Government, intimating that the Martini-Henry carbine introduced in War Office list of changes, clause 3215, is intended for the Royal Horse Artillery and Field Artillery, communicated to His Excellency the Commander-in-Chief and the Inspector General of Ordnance.
Issue, from the reserve stock for the 4th Hussars, of Martini-Henry carbines to H Battery, 1st Brigade, Royal Artillery, and B Battery, B Brigade, Royal Horse Artillery, sanctioned by the Government of India.
Publication of a G. O. permitting the exchange of Sniders at convalescent Depôts for Martini-Henry rifles sanctioned.

EQUIPMENT—ARTILLERY.

Extension to the Garrison Batteries of Royal Artillery in the Madras Presidency of the issue of valise equipment to replace accoutrements which have served their time, sanctioned.

EQUIPMENT—BRITISH ARMY.

Free issue of a treasure chest for the use of 2nd Battalion, 13th Regiment, declined.

EQUIPMENT—NATIVE ARMY.

Decision of the Government of India on the question of the supply of rifles to bandsmen of Native infantry regiments, communicated to His Excellency the Commander-in-Chief and the Inspector General of Ordnance.

Supply of oil bottles to regiments of Native Cavalry armed with Snider carbines, sanctioned.

ESTABLISHMENTS—ARMOURERS.

The question of the liability of Mr. Orr, Chief Civil Master Armourer, to serve beyond the limits of the Madras Presidency, referred to the Home Government.

ESTABLISHMENTS—REGIMENTAL.

Charge of Rs. 7 per mensem for a cart for the removal of urine from the latrine of the Queen's Own Sappers and Miners at Bangalore, sanctioned.

Proposal to work the punkahs in the barracks of the 33rd Foot at Kamptee by steam power, not entertained

ESTABLISHMENTS—STAFF OFFICERS.

Orders passed on the subject of placing the clerks of the Commander-in-Chief's staff on the same footing, as regards Hill allowances, as those of the Government Secretariat.

Restoration to the service of P Vuridarajulu Naidu, Clerk in the office of the Deputy Assistant Adjutant-General, who availed himself of the benefit of the Insolvent Act, sanctioned.

ESTIMATES—BUDGET.

Additional assignment of Rs. 11,000 applied for in favor of the Executive Commissariat Officer, Bellary, sanctioned.

Correspondence from the Commissary-General, explaining why the Railway charges during the current year are heavy, recorded.

Special credit of Rs. 1,05,804 in favor of the Executive Commissariat Officer, Madras, also a further supplementary grant of Rs 96,000 on account of the clothing and railway charges of troops proceeding on field service, sanctioned.

FIELD OPERATIONS.

Closing of the accounts of the Malta Expedition within the present official year, requested by the Government of India.

FIELD OPERATIONS—KABUL.

All stores and supplies required from England for the purposes of the Afghan Expedition should be obtained through the Military Department of the Government of India.

Brigadier-General McMaster's report of the arrival of the 21st Madras Native Infantry at Mooltan, recorded.

Charge of Rs 1,197-14-8 on account of cloth valises supplied to the 1st Light Cavalry, sanctioned.

Concession of the grant of passages to England in a troopship extended to such relations of an Officer as may be *bonâ fide* members of his family and dependent on him for a home.

Correspondence in conection with the formation of a Reserve Division to assemble on the Lower Indus, recorded.

Correspondence on the subject of the supply of water-bottles to Native Regiments proceeding on field service recorded

Decision of the Government of India that in the event of an officer being killed in action, free passages by troopship may, if available, be allowed to his family, whether the deceased officer belonged to the British or to the Indian Service, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts,

Decision of the Government of India that batteries and regiments proceeding on service shall continue to be borne on the establishments of the Presidencies from which they have severally been detailed; communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

Government of India informed that paulins should also be sent with suleetahs for the Madras troops on field service.

Government of India informed that the 21st Native Infantry left Bellary for Mooltan on the 6th January 1879.

Grant of horse allowance to the Officers attached to the siege train proceeding on service from the date on which they may have provided themselves with horses, sanctioned.

Grant of free passages to their homes for the families of Native regiments ordered on service, sanctioned.

Intimation from the Government of India that the Bombay Government will supply suleetahs for Madras troops, communicated to the Acting Commander of the Forces and the Inspector-General of Ordnance.

Issue of saws to all companies of Sappers and Miners ordered on field service in Afghanistan, sanctioned.

Not intended to give a free passage Home to the widow of an Officer killed in action *in addition* to any passage allowance to which she may be entitled from any of the funds.

Orders passed on a letter from the Commissary-General, enquiring whether warm clothing is to be kept in readiness for another Regiment of Native Infantry besides the 21st.

Policemen who may enlist into Native Regiments, permitted to count two-thirds of their Police service towards Military pension.

Proposal to increase the salaries of the Clerks of the Commissariat Department proceeding on field service, approved by the Government of India

Replacement by the Madras Government of the number of socks that may be issued by the Bengal Commissariat to the 21st Regiment, Madras Native Infantry, requested.

Sanction accorded for considering the I Company, Sappers and Miners, at Secunderabad, the next for duty for the Khyber Pass, and detailing the C and G from Bangalore, for the Lower Indus when required.

Statement of warm clothing required for the 21st Regiment, Native Infantry, and three Companies of Sappers and Miners under orders to proceed to the Lower Indus on field service, recorded.

Statement of the estimated cash requirements of the Commissariat Department for four months of the force which has proceeded or has been warned for field service on the North-Western Frontier, forwarded to the Government of India.

Telegram from the Officer Commanding 36th regiment, Madras Native Infantry, reporting the arrival of the regiment at Rawal Pindi, recorded.

Telegram from the Government of India, intimating that 900 suleetahs for ammunition for Madras troops have been ordered, communicated to His Excellency the Commander-in-Chief and the Inspector-General of Ordnance.

Telegram from the Brigadier-General Commanding Mooltan, reporting the movement of a company of the 30th Regiment, Native Infantry, from Mithancot to Dadur, and the intended departure of a wing to the former station, recorded.

Telegram from the Government of India, intimating that the services of Lieutenant-Colonel G. A. Arbuthnot and the other officers detailed for the Reserve Division, ordered to assemble on the Lower Indus, are not at present required, communicated to the Acting Commander of the Forces.

FIELD OPERATIONS—KABUL—*contd*
The orders issued for the supply of warm clothing, &c., to the Madras troops at or beyond Jubbulpore, approved by the Government of India.
FUNDS—INDIAN SERVICES.
Intimation from the Home Government that separate *pro formâ* accounts of the Military Fund for the half-year ended 30th September 1877 will not be required, communicated to the Controller of Military Accounts.
FURLOUGH AND LEAVE—BRITISH ARMY.
Application from 1st Class Barrackmaster Serjeant P. Kilcoin for nine months' furlough to Europe, sanctioned.
FURLOUGH AND LEAVE—BRITISH SERVICE.
Grant of furlough to Europe to re-engaged non-commissioned officers of the British Military Service of good character borne on the rolls of Sappers and Miners, sanctioned.
FURLOUGH AND LEAVE—OFFICERS.
Colonel J. Michael's application that the privilege leave on medical certificate granted to him in G. G. O. No. 813 of 1878 may not, so far as service for furlough and pension is concerned, be converted into general leave, sanctioned.
Extract from a despatch from the Home Government, intimating that Captain A. F. Wilkinson, General List, will be examined by a Medical Board on arrival in England, communicated to His Excellency the Commander-in-Chief.
Sanction of Government for Lieutenant-Colonel Hands now availing himself of the furlough granted him in September 1878, considered unnecessary.
FURLOUGH AND LEAVE—STAFF OFFICERS.
Correspondence regarding Captain Maclaverty's return to duty and the retention of his appointment in the Ordnance Department, recorded.
HONORS AND REWARDS—GOOD-SERVICE PENSIONS.
Decision of Home Government regarding the eligibility of Major-Generals Spurgin and Raikes for the Indian good-service pension, communicated to His Excellency the Commander-in-Chief.
HORSES—FORAGE.
Removal of the retrenchment against C Battery, B Brigade, Royal Horse Artillery, on account of over-issues of gram to the horses in 1876, sanctioned.
INTELLIGENCE.
Sanction accorded to plans and descriptions of certain forts in the Madras Presidency being printed at the Government Lithographic and Printing Presses.
MEDALS AND REWARDS—GOOD CONDUCT PAY.
Claim of Corporal D. Houston, No. 14 Battery, 8th Brigade, Royal Artillery, to good conduct pay, sanctioned.
MEDICAL DEPARTMENT—INSPECTION TOURS.
Sanction accorded to the Surgeon-General, British Medical Service, visiting certain military stations occupied by British troops.
MEDICAL DEPARTMENT—STORES.
Correspondence from the Home Government relative to the supply of medicines to India, and the recommendation of the Committee that medical officers when at home on furlough should qualify themselves by a course of study for the post of Medical Store-keeper, communicated to His Excellency the Commander-in-Chief and Departments concerned.
MEDICAL DEPARTMENT—SUBORDINATE.
Application preferred on behalf of 1st Class Apothecary T. Ward, for the rank of Honorary Surgeon, negatived.
Grant of the higher rate of pay to Assistant Apothecary Hesterlow, 67th Regiment, until the certificate of qualification is given to him by the Medical Examining Committee, declined.
MILITARY STORES—PACKAGES.
Report of the Director-General of Stores relative to the alleged deficiencies in the consignment of bottled malt liquor sent out to India per *Almorah*, communicated to the Commissary-General and the Controller of Military Accounts.
ORDNANCE—CAMP EQUIPAGE.
Transfer of a double-pole tent and a necessary tent to the Master Attendant's Department for the use of the Superintendent of the Vakalapudi Light-house, sanctioned.
ORDNANCE—ESTABLISHMENTS.
Orders passed on an application from the Inspector General of Ordnance for the entertainment in his office of an extra clerk for two months on Rs. 20 per mensem.
ORDNANCE—INDENTS AND ESTIMATES.
Cancellation of the demand for frogs in the Madras Ordnance Indent, No. 118 of 1877, intimated by the Home Government.
Extract from a Military despatch from the Home Government, intimating that the War Office has been requested to expedite the supply of the heavy guns due to the Madras Presidency, communicated to the Inspector General of Ordnance.
Extract from a despatch from the Home Government, intimating shipment in September 1878 of the "cloth, wire, brass" demanded in Ordnance indent No. 118 of 1877, communicated to the Inspector-General of Ordnance.
ORDNANCE—ORGANIZATION.
Sanction for the appointment of a permanent Park Serjeant at Cannanore, declined. Proposed arrangement for the charge of ordnance stores at that station, approved.
ORDNANCE—STORES.
Adoption of a spring lock for fastening the lids of ammunition boxes of field artillery in addition to the hasp with spring turn buckle, sanctioned by the Government of India.
Adoption in the Madras Gunpowder Factory of the specification received from the War Office for the manufacture of R. L. G. [2] gunpowder, sanctioned.
Adjustment of the value of timber received from Ceylon by the Gun-Carriage Factory, Madras, reported to the Government of Ceylon.
Correction in letter from the Government of India, sanctioning strengthening plates being added to gun-carriages fitted with box girder axletree beds, communicated to His Excellency the Commander-in-Chief and the Inspector-General of Ordnance.
Despatch to the Madras Presidency for trial, of 1 cwt. of graphite for glazing gunpowder promised by the Home Government.
Intimation from the Home Government that the supply of soap demanded in Ordnance indent No. 118 of 1877 will be expedited as much as possible, communicated to the Inspector-General of Ordnance.
Provision for the Madras Presidency of patterns of certain ordnance stores, promised by the Home Government.
Report from the Inspector General of Ordnance of the quantities of P. powder passed into the service, and the extent of relaxation of the standard pressure allowed in each case recorded.

ORDNANCE—STORES—*contd.*
Report from the Inspector-General of Ordnance of the quantity of modified pebble powder despatched to Loodianah, recorded.
Report from the Inspector General of Ordnance of the despatch of 83 barrels of pebble modified powder to Loodianah, recorded.
Statement showing the particulars of the timber received from Ceylon by the Madras Gun Carriage Factory, forwarded to the Colonial Secretary, Colombo.
Supply to the Madras Presidency of new pattern bayonets for the Martini-Henry rifle, sanctioned by the Home Government.

PASSAGES.
Application of the Reverend J. D. Ostrehan, Chaplain of Vellore, for passage in a troopship, negatived.
Correspondence from the Government of India regarding the disposal of insane Native soldiers, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.
Orders passed on correspondence regarding the charge for extra carts employed for the conveyance, from Mettapolliem to Wellington, of eight families of the 44th Foot.

PASSAGES—OFFICERS.
Correspondence regarding the provision of passage in Her Majesty's Troopship *Euphrates* for Major Bisset's niece, recorded.
Grant of free passages to England to officers placed, in consequence of ill-health, on temporary half-pay, approved by the Home Government.
Letter from the Government of India, intimating that wives and families of Chaplains on the Indian establishment are not included in the privilege allowed to the wives and families of military officers on field service of free passage to England in the troopships, communicated to His Excellency the Commander-in-Chief and the Ecclesiastical Department.
Royal Engineer Officers retiring under the Royal Warrant of 6th September 1878 not entitled to passage money.

PASSAGES—RAILWAY.
Admission of Railway fare for an orderly who accompanied Serjeant Selby from Bangalore to Madras, sanctioned.
Sanction accorded to the necessary addition being made to the Transport Regulations, providing for the free conveyance by rail to port of embarkation and back of the husband or any other person who may be selected to proceed in charge of a woman of bad character ordered to be removed to England.

PASSAGES—SEA.
Extract from a despatch from the Home Government, requesting that the Return of Officers who embarked at Madras for England may in future be sent as an enclosure to a paragraph of a despatch, recorded for guidance.
Extract from a despatch from the Home Government, intimating that Private J. Gates, late 44th Foot, was discharged by purchase on the 1st November 1878, communicated to His Excellency the Commander-in-Chief.
Return of officers, warrant officers or non-commissioned officers sent to England on P. and O. vessels, should in each case show whether the individual embarked as a Government passenger or received passage allowance.

PASSAGES—TABLE MONEY.
Correspondence from the Government of India on the subject of the deductions on account of messing of Warrant Officers on Board Her Majesty's Indian troopships, communicated to His Excellency the Commander-in-Chief.

PASSAGES—WOMEN AND CHILDREN.
Concession of free passage in a troopship when accommodation is available, extended to warrant officers and their families.
Embarkation for England in troopship of the motherless child of Color Serjeant T. Noble, 33rd Regiment, reported to the Secretary of State.
Extract from a despatch from the Home Government, intimating the provision of passage to India for the wife and family of Schoolmaster A. Douthell, communicated to His Excellency the Commander-in-Chief.
Provision of a passage to India for the widow and children of Gunner J. Manchester, intimated by the Home Government.

PAY AND ALLOWANCES.
Bill for subsistence allowance to Private Ramasawmy, late of the 2nd Native Infantry, during the period he was awaiting the orders of Government on his case, after discharge from the Lunatic Asylum at Waltair, sanctioned.
Decision of the Government of India on the question of the grant of staff allowance to a wing officer who, by the return of the permanent incumbent, becomes supernumerary in the regiment, communicated to His Excellency the Commander-in-Chief.
Decision of the Government of India on the claim of Major H F. Pritchard, Commanding H Battery, 1st Brigade, Royal Artillery, to arrears of pay as Major for the period he served as Commandant of No. 4 Light Field Battery of the Hyderabad Contingent, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts
Lieutenant-Colonel Taylor's application to be allowed to remit to England the amount of his arrears of pay at the official rate of exchange which prevailed at the time the pay accrued, negatived.
Rate of pay and allowances admitted by the Home Government to Indian officers who, while on furlough in England, were ordered to proceed to Malta, and who have returned to England to avail themselves of the balance of their furlough, intimated.
The grant of usual salaries to Captains Hammick, Bell and Onslow during the employment of Sir Neville Chamberlain on special duty, sanctioned by the Government of India.

PAY AND ALLOWANCES—BRITISH ARMY.
Decision of the Government of India that only the lance ranks, which are sanctioned by section 7, paragraph 69 of the Queen's Regulations and Orders for the Army, are entitled to the extra pay under paragraph 2 of G. G. O. No 669 of 1878, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

PAY AND ALLOWANCES—CHAPLAINS.
Disbursement of Chaplaincy allowance to the Rev. M. Tomasseo and the Rev. A. Muller, for ministering to the Roman Catholic soldiers at Trimulgherry and Calicut, respectively, sanctioned.

PAY AND ALLOWANCES—FURLOUGH.
Payment of arrears of furlough pay due to Lieutenant-Colonel Crawford and Captain A. S. Grove to their agents in England, promised by the Home Government.
Surgeon-Major C. Smith's claim to furlough pay at 2*s.* the rupee, negatived by the Home Government.

PAY AND ALLOWANCES—NATIVE ARMY.
Retention of six recruits enlisted in excess of the authorized strength of the 29th Native Infantry, sanctioned.

PAY AND ALLOWANCES—OFFICE ALLOWANCE.

A writer on Rs. 15 per mensem and actual cost of stationery for the Staff Office, Royal Artillery, Nagpore Force, while only one battery is located at Kamptee, sanctioned.

PAY AND ALLOWANCES—RETRENCHMENTS.

Decided that no recovery be made from pensioned Private Seetaramdoo, on account of effective pay erroneously issued to him during the period he was an inmate of the Lunatic Asylum at Madras.

Relaxation of Clause XXVI, Furlough Regulations of 1868, in favor of Colonel Lewis, who exceeded the period of twelve months' leave by ten days under that Regulation, sanctioned.

Withdrawal of the retrenchment against the 4th Regiment, Native Infantry, on account of the salary of a supernumerary Wing Officer, sanctioned.

PAY AND ALLOWANCES—WOMEN AND CHILDREN.

Claim of Mrs. Digby, widow of the late Bombardier Digby, to salary whilst employed as an Acting Assistant Schoolmistress, in addition to subsistence allowance and rations for the usual period after her husband's death, admitted.

Letter from the Government of India, intimating that widows of drummers with Native corps are not entitled to subsistence allowance for one year after their husbands' decease, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts. Proceedings of the Committee on the claim to pension of the widow of the late Drummer Laulman, 17th Native Infantry, confirmed.

Proposal to dispense with the previous sanction of Government for the admission of subsistence allowance to the wives of soldiers who marry without permission, sanctioned conditionally.

Retrenchment against the late Captain Macdonald on account of subsistence allowance drawn for the child of Bombardier Shearer, removed.

PENSIONS.

Admission of Private Lutchmia, 38th Native Infantry, to a pension of Rs 4 per mensem, sanctioned.

Claim of Pensioned Farrier C. Mannas to the full pension of his rank, negatived, and the grant to him of rice-compensation at the rate payable to a pensioned Private, sanctioned.

Extract from a despatch from the Home Government, declining to interfere with the orders passed on the case of Subadar-Major Mahomed Cossim, late 3rd Light Cavalry, who was transferred to the pension establishment, communicated to pensioned Subadar-Major Mahomed Cossim.

Government of India informed why pecuniary liability was not enforced upon the officers under whom the defalcations discovered in the Pension Office at Mercara occurred, and why the military pension of the late Writer H. Taniffe was not cancelled.

Home Government informed that the name of the late Chelsea out-pensioner who died at Madras on the 18th October 1877 was John Nichol and not John Nicholas, as was erroneously reported.

Sergeant Instructor Jones, of the Ordnance Artificer Company, transferred to the non-effective establishment on a pension of Rs. 16-10-8 per mensem.

PENSIONS—GRATUITIES.

Claim of Puckally Shaik Sillar, 33rd Foot, for a gratuity of five months' pay on discharge, negatived.

Grant of an inferior invalid gratuity of four months' pay on discharge to Muleteer Shaik Chand, sanctioned.

REGIMENTAL INSTITUTIONS—CANTEENS.

Instructions of the Government of India regarding the disposal of canteen property of troops leaving Aden, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

REGIMENTAL INSTITUTIONS—MESSES.

Government of India requested to recover from Lieutenant-Colonel G. P. de P. Falconnet, Royal (Madras) Engineers, Superintending Engineer, Meerut Command, Rs. 102, on account of donation to the Sapper Mess on promotion.

RETURNS—WAR OFFICE FORMS.

Revised War Office Forms of "Annual Return of Sick and Wounded" and "Annual Confidential Report on Officers," forwarded by the Government of India.

ROYAL ENGINEERS.

The terms under which Royal Engineer Officers while on furlough in England will be permitted to go through special courses of instruction at the School of Military Engineering at Chatham, intimated by the Home Government.

SALUTES.

Copy of an amended table of salutes to Native Princes and Chiefs of India and to certain Chiefs near Aden, forwarded by the Government of India.

SANITARY.

Payment of compensation for certain huts removed to the north of the barracks of the 2nd British Infantry Regiment, Secunderabad, on a recent outbreak of cholera at the station, sanctioned.

Sanction accorded to Surgeon-General Gordon's second special report on enteric fever being printed at the Government Press.

SANITARY—EPIDEMICS.

Extra issue of coffee, milk and wood to the troops of the Hyderabad Subsidiary Force during an outbreak of cholera at Secunderabad in August 1878, sanctioned.

SANITARY—POTABLE WATERS.

Supply of three chatty filters for the horse lines of the Field Battery, Royal Artillery at Kamptee, sanctioned.

SCHOOLS—BRITISH ARMY.

Regimental Infant School buildings in Fort St. George considered sufficient and adapted for the purpose to which they are appropriated, and the use of the rooms in the quarters lately occupied by the Commissary of Ordnance for an Adult School, approved.

SCHOOLS—ESTABLISHMENTS.

Entertainment of boy monitors in the room of soldier assistants in the schools of those British Regiments that may be ordered on field service, sanctioned.

SERVICE—BRITISH ARMY.

Soldiers enlisted for short service to be retained in India until they have completed their full term of six years.

SPECIAL—FAMINES.

Admission as a Military charge of the sum incurred by the Tahsildar of Rajahmundry in repairing huts of the Detachment of the 7th Regiment, Native Infantry, when stationed at that place, authorized.

STAFF CORPS—ADMISSIONS.

Admission of certain officers to the Madras Staff Corps, and their promotion to the rank of Lieutenant, sanctioned.

STAFF CORPS—HALF PAY.

Correspondence from the Home Government, permitting an officer on the half-pay list to return to duty in India on the report of the Medical Board of the India Office, communicated to His Excellency the Commander-in-Chief.

Despatch from the Home Government, intimating that, if the Medical Board of the India Office report favorably of the health of Staff Corps Officers placed on the half-pay list, they will be permitted to return to India to rejoin the effective list without previous reference to the Local Governments, communicated to His Excellency the Commander-in-Chief.

STAFF CORPS—PROBATIONERS.
Correspondence on the subject of the paucity of young officers to serve with regiments and batteries in the Madras Presidency, submitted to the Government of India.
Decision of the Government of India on the subject of the extension of the term during which direct probationers for the Staff Corps are required to pass either of the lingual tests, communicated to His Excellency the Commander-in-Chief.
Extract from a despatch from the Home Government, requesting that the nomination of officers as probationers for the Madras Staff Corps may be reported at once, in view to the vacancies in the regiments being filled with as as little delay as possible, recorded.
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Telegram from the Horse Guards, intimating that the 29th and 78th Regiments proceed to India instead of 5th and 30th Regiments which remain in England, communicated to His Excellency the Commander-in-Chief.
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Grant of passages to the families of certain soldiers of the N-1 Royal Artillery in a troop-ship.
Grant of the passage to England in one of Her Majesty's Indian troop-ships for the wife and family of Color Sergeant Buckingham, 2-15th Regiment.
Mrs. Barrand, wife of Corporal Barrand, Royal Engineers.
Move of the families of non-commissioned officers and men of the 1st Battalion, 2nd Queen's, from Poona to Mhow, sanctioned.
Passage provided to England in one of Her Majesty's Indian troop-ships for the son of Hospital Serjeant J. C. Swanson, Royal Artillery, Poona Division.
Families of Warrant Officers. Wife of Sub-Conductor W. Clew, of the Ordnance Department, to be provided with a passage from Aden to Bombay at the public expense.
Horses. Conveyance by rail of one horse of E-B Royal Horse Artillery, from Burhanpur to Kirkee.

PASSAGE AND TRANSPORT—*contd.*
Officers. Application by Colonel D. Thomson, R.E., for passage to England for himself and family negatived.
Passage to England to Lieutenant J. B. H. Read, 2-1st Regiment, who has been placed on temporary half pay.
Passage money. Colonel Moyle, Retired List.
Passage money. General J. Brind.
Secretary of State enquires whether Surgeon O'Brien, Captain French, R.A., and Lieutenants Macbay, Grey and Macintire proceeded to England in the Peninsular and Oriental Company's steamers as invalids, or were provided with Government passages.
Soldiers. Certain soldiers of the 1-2nd Queen's Royal Regiment, and their families allowed passages in one of the troop-ships leaving Bombay during the month of January 1879.
Warrant officers. Government of India sanction the extension to warrant officers of the concession specially allowed to officers below the rank of field officer of free passage in a troop-ship for themselves and their families when accommodation is available.
Question as to whether pensioned warrant officers are to be allowed free passages by sea.
PAY AND ALLOWANCES.
British Army. Lance ranks sanctioned by section 7, para. 69 of the Queen's Regulations and orders for the army, are entitled to the extra pay under para. 2 of G. O. G. I. No. 669, dated 19th July 1878.
Grant of gratuities to farriers of British Cavalry or the Royal Artillery for training men as shoe-smiths.
Conductor Spencer, Store-keeper, Clothing Department. Application by the Superintendent, Army Clothing that Conductor Spencer may be allowed the warrant staff pay of his rank in addition to warrant pay and allowances, negatived.
Divisional commands. Sir J. Brind.
Insane British soldiers. Rules regarding the mode of drawing and adjusting the pay of insane soldiers which are in force in Madras and Bengal to be carried out in the Bombay Presidency.
Non-commissioned officers, unattached list.
Officers. Aides-de-Camp withdrawn for field service.
——— artillery, retiring under the warrant of 6th September 1878. Question as to whether the ordinary pension, extra pension and difference between aggregate of these pensions and Indian pay and allowances shall be admitted to—up to and for the date of receipt at the station where they are serving of the Indian Gazette in which their names appear.
Engineers. Government of India state that the ruling relative to the pay and allowances admissible to Royal Artillery officers now retiring under the royal warrant of 6th September 1878, until gazetted in India, may be held equally applicable, on the same conditions, to officers of Royal Engineers.
General J. Brind.
Lieut.-Colonel E. S. Beamish, R.A. Amount payable in England under the provisions of G. O. G. I. No. 716 of 1878 to—
Lieut.-Colonel J. T. Francis, on promotion to the rank of Colonel.
Majors of Artillery.
Supernumerary—to the service companies in India.
Public followers. Exemption from attachment of the pay of public followers, such as syces and grass-cutters, as persons to whom the Native Articles of War apply.
Staff pay as Gunnery Instructor of Royal Artillery at Colaba to be issued to the officer who may hold the appointment.
Subsistence allowance; soldiers' families. Sanction of Government for the grant of subsistence allowance to soldiers' families, dispensed with.
Travelling allowance. Pensioned Conductors.
Warrant officers. A G. O. published regarding the admission of effective pay to warrant officers transferred to the pension list.
PENSIONERS.
Mrs. Reed, widow of the late pensioned Conductor Henry Reed, permitted to leave her pension undrawn in India for a period of three years.
Pension documents. Chelsea pensioner Jeremiah Sullivan, deceased,
PENSIONS.
Good service. Colonel Sir W. L. Merewether, K.C.S.I., C.B.
PENSIONS AND GRATUITIES.
Armourer Lalla Lallchund, of 19th Regiment Native Infantry, recommended to the Government of India for an invalid pension.
Artificers, Ordnance Department. Framjee Bhicajee, late Head Maistree carpenter, Bombay Arsenal.
Joomah Kalloo, late under Maistry-smith, Neemuch Depôt.
Bapoo Dhunjee, late Assistant Cutler, Medical Store Department, Bombay.
Clerks. Mr. Atmaram Ramchandra, clerk, Military Department Secretariat.
Commissariat followers.
Form of pension circular.
Honorary Captain Christian.
Medical subordinates. First Class Apothecary Rama Succaram.
First Class Hospital Assistant Amritsing.
Native Army. Certain officers and men.
Grant of the higher rates of pension to certain supernumerary Native officers.
Ruling in respect to the composition of invaliding committees.
Peons, Commissariat Department.
Soldiers, European, in civil employ. Mr. H. Bailey's request that he may be allowed military pension in addition to the pension he now receives from the Bombay City Police Superannuation Fund, negatived.
Soldiers' widows. Mrs. Grogan *alias* Freeman, widow of the late Gunner Dennis Grogan, disallowed arrears of pension.
Warrant officers. Conductor James Gargrave, of the Barrack Department.
Government of India decline to make a special application to the Secretary of State for an increased pension on behalf of Honorary Captain Bunyer, Bombay Ordnance Department.
PETITIONS.
Bhugwan Deen Misser, late Jemadar, 1st Jacob's Rifles.
Girdharilal Panji.
Jumboo Lingam, late Head Clerk, Cattle Ferm, Aligaum.
Shewcharan Sookal, pensioned Subedar of the 9th Regiment Native Infantry,
PROMOTION AND RANK.
Conductor Bennett recommended for promotion to the grade of Deputy Assistant Commissary.

PROMOTION AND RANK—*contd.*
Captain Christian recommended for the rank of Honorary Major on retirement.
Despatch from the Secretary of State regarding the promotion to the substantive rank of Major of officers holding unattached commissions.
Medical officers. Surgeons Bowman and Heffernan.
Officers, Commissariat Department.
PROMOTIONS.
Officers. Lieutenant-Colonel Arthur Phelps, of the Bombay Infantry.
PUBLICATIONS.
Appendix A to Horse Guards G. O. No. 82 of 1st September 1878.
Army and Civil Lists for the Cantonment Magistrate of Poona.
Army Lists. Application by the Assistant Quarter-Master-General, Poona Division, for the supply of the Bengal Army List, disallowed.
Extracts from the proceedings of the department of the Director of Artillery.
Field exercise and evolutions of 1877 translated into Hindustani, in the Urdu and Hindi characters.
Instructions for fitting valise equipment, and Army Circulars and General Orders.
Lists of books required to complete the batteries of Royal Artillery in this presidency forwarded to the Government of India.
Major Home's Précis of Modern Tactics.
Medical and Sanitary Report, Madras Army.
New Selections for the Higher Standard, &c.
Postal Directory.
Royal Artillery Regimental Orders.
War Office Army Circular.
PUBLIC SERVANTS.
Insolvents. Mr. J. B. Smith, Head Clerk in the office of the Surgeon-General, Indian Medical Department, allowed to take the benefit of the Insolvent Act.
RATIONS.
Claim to free rations preferred on behalf of detachments of the 2nd Sind Horse and 29th Regiment, Native Infantry, recently employed on escort duty beyond the Bolan Pass, disallowed by the Government of India.
RELIEF AND MOVEMENT OF TROOPS.
British Infantry Regiment at Mhow. Move of—
Tonnage. Indian Government steamer *Dalhousie* to be engaged for the conveyance of the Sappers and Miners to Kurrachee in addition to a number of dooly-bearers instead of the hired steamer *Scotland*.
REPORTS.
Officers, Captain Bryant should not be permitted, on return from furlough, to resume the duties of Adjutan of the 29th Native Infantry.
RETIREMENTS.
Compensation, Bonus. Royal Artillery and Engineer officers.
G. O. G. I. No. 1, dated 1st January 1879, regarding the terms on which officers of the Staff Corps and Ravalry and Infantry of the Indian Army will be permitted to retire during the year 1879.
Number of retirements unallotted under G. O. No. 1 of 1878.
Officers, Artillery and Engineers.
Engineers. Major-General Jenkin Jones, Colonel A. Davidson and Colonel D. Thompson.
Indian Staff Corps and Local Service. Retirements of—subsequent to the 31st December 1878 to be submitted for the approval of Her Majesty.
Ruling by the Secretary of State regarding the retirement of officers pronounced unfit from causes resulting from injuries sustained by them.
Thirty-five retirements under G. O. G. I. No. 1, dated 1st January 1879, which remained unallotted on the 31st December last, held available for officers of three presidencies up to 31st March next.
RETURNS.
Army. Form of sanitary sheet prepared with a view of supplying information as to the sanitary condition of the lines of Native troops.
Bombay Military Fund. Return of losses arising from Military Fund claims not being treated as preferential charges.
Clothing.
Embarkation. Details of time-expired men, invalids, &c., who proceeded to England in troop-ships.
H. M.'s 1-8th Regiment.
Officers. Warrant and non-commissioned officers sent to England by Peninsular & Oriental Company's steamers.
Officers, soldiers, &c., embarked for England in troop-ships.
Secretary of State desires that the returns of officers, &c., sent to England should show whether the individuals embarked were granted passage allowance or were proceeding as Government passengers.
List of officers proceeded to England with last-pay certificates granted by the Military Department whose absentee allowances are not wholly chargeable to Indian revenues.
—— showing the dates of birth of the general officers, colonels and lieutenant-colonels of the local service.
—— of officers whose pensions are not wholly chargeable to British Indian revenues, who have received certificates of last issue of pension in India or last pay certificates in view to their pensions being paid in England.
Medical History, Native Army.
Statements shewing the numbers, condition and value of arms, accoutrements and other stores in possession of 1-8th (The King's) Regiment of Foot, embarked for England.
Stores, Ordnance. Annual return of bronze and iron ordnance in stores and in use in this presidency.
Return of bronze and iron ordnance and carriages.
War Office Forms.
ROYAL WARRANT.
Of 1st May 1878. Supply of copies of—
SANITATION.
Form of sanitary sheet prepared with a view of supplying information as to the sanitary condition of the lines of Native troops.
Sewerage of Back-bay and Sonapur.
SCHOOLS.
British Army. Issue of certain Hindustani books to schools of British Corps in which Hindustani classes are established.
SERVICE.
British Army. Retention in India of short-service soldiers until they have completed their full term of six years with the colors.

SERVICE—*contd.*
Officers. Colonel G. S. Morris, Bombay Infantry, permitted to reckon the period passed by him in the appointment of Deputy Assistant Quarter-Master-General in Egypt as service for furlough.
Services of Captain F. W. Joseph, Staff Corps, in China allowed to acount for furlough.
——— Royal Artillery. Captain W. J. Heavyside and Lieut.-Colonel B. H. Pottinger elect for local service.
Lieutenant Colonel B. H. Pottinger points out that he has not yet elected.
Secretary of State states that he is unable to concur with the Government of India that Major Candy committed himself to general service.
Secretary of State desires to be informed of Major Pottinger's election either for general or local service as soon as it is made.
Warrant officers promoted to that grade after 31st December 1875 will be allowed to count their previous service for furlough under Rule 6 of the Regulations of 1875.
SOLDIERS.
European. Private J. Collet, 1-2nd Regiment, permitted to reside in India.
Re-engagement of Staff Sergeant Smith, Bombay Unattached List, Public Works Department.
STAFF CORPS.
Admissions. Lieutenant G. E. Walter, 66th Regiment; Lieutenant R. C. G Mayne, 83rd Regiment.
Form of certificate of the Commanding Officer granted to candidates for the Staff Corps in the Bengal Presidency to be adopted in the Bombay Presidency.
Officers. Captain E. P. Ommaney, half-pay list, permitted by the Secretary of State to return to duty in India.
Officers under the rank of field officer placed on the the half-pay list on medical grounds to be allowed to rejoin the effective list if the Medical Board at the India Office report favorably of their health.
Probationers. Government of India rule that the grant of an extension of the term during which direct probationers are required to pass the lingual tests may be left to the discretion of the local Commander-in-Chief, those cases only in which an extension of the whole term of three years is asked being submitted for the orders of Government.
Lieutenant A. B. Mein, 2-22nd Regiment.
Lieutenant C. G. Whitby, 1-17th Regiment, granted an extension of probation for six months
Lieutenant W. S. Widdicombe, 43rd Regiment.
Sub-Lieutenant E. W. C. Goate, 81st Regiment. Services of—dispensed with.
The Secretary of State desires that the nomination of officers as probationers for the Indian Staff Corps may be reported at once to the India Office.
STANDING ORDERS.
Correspondence. Ruling by the Government of India that information received by officers in their official capacity, whether from official sources or otherwise, which is not from its nature obviously intended to be made public, cannot be treated as if it were at their personal disposal.
Legislative enactments.
STORES.
Clothing. Secretary of State desires to be furnished with a sample of the red white list cloth received ex steam-ship *Surat*.
Coal for the Gunpowder Factory at Kirkee. Substitution of Hartley coal for Anthracite coal in Bombay Ordnance indent No. 59 of 1877.
Commissariat Department. Explanation furnished to the Government of India as to why requirements of civil hospitals for wines and spirits were included in the Commissariat Department indent for 1879-80.
Invoice of the screen for smutter for the Government Bakery at Kurrachee.
Porter expected from England.
Disinfectants for the Hyderabad Contingent and Berar Civil Hospitals.—(*See* Establishments.)
Invoice statement of stores per troop-ship *Jumna*.
Local purchase of. Government of India return indents, requisitions and estimates for books, &c., required for the Bombay Army, with reference to paragraph 2 of Military Department Resolution No. 47E. of 1879.
Ruling by the Government of India in regard to the mode of obtaining supply of books and other stores from Europe or America independently of the India Office.
Magic-lanterns.
Ordnance. Adoption of pattern vent servers in lieu of the thumbstalls in use on board Her Majesty's ships in commission.
Ammunition boxes. Government of India furnished with the opinion of this Government on the question of the manufacture in the Small Arm-Ammunition Factory, Dum-Dum, of ammunition boxes for all India.
Carbines. Interchangeable B. L. rifled snider—received from England per S.S. *Japanese*.
Report of some of them having been found to be damaged.
Defective quality of friction tubes supplied to Her Majesty's ship *Undaunted* and two batteries of Royal Artillery.
Discrepancies in a consignment of stores sent out from England for the Small Arm-Ammunition Factory at Kirkee ex *Duke of Atholl*.
Deficiency in the quantity of stores despatched from Poona Arsenal to N-1st Royal Artillery, at Ahmednagar.
Disposal of a consignment of iron received ex *Coldstream*.
Dynamite.
Factories. Jack, lifting, for the Gunpowder Factory, Kirkee.
Graphite for glazing gunpowder.
Issue of 8 Snider rifles, &c., to the Political Agent, Mekran Coast, sanctioned.
Issue of scales and weights to batteries of Royal Artillery.
Local manufacture and supply. Patterns of certain ordnance stores.
Material for making up gyns.
Manufacture of——in the Calcutta Mint.
Packing of brass strip in tin cases unnecessary.
Procedure to be observed in indenting for ordnance stores required for the use of the Aden Port.
Revised Equipment Table for R. M. L. Siege Trains.
Spring locks to be fitted to ammunition boxes of Field Artillery in addition to the hasp.
Supply of oil-bottles to regiments of Native Cavalry armed with Snider carbines.
6·3 wrought iron muzzle-loading rifled howitzers.
7-pr. R. M. L. friction tubes issued to the Camel Battery at Aden, found unserviceable.
(*See*) Ordnance Department. Machinery for the 3rd group of incorporating mills for the Gunpowder Factory, Kirkee.
Valuation statement of stores supplied for the use of certain details proceeded to England.
shipped on board H. M.'s troop-ships.

TELEGRAMS.
Government of India sanction, as a special case, the admission of the charge on account of a telegram sent by the Officer Commanding 1st Battalion, 2nd Queen's Royal Regiment, to His Royal Highness the Field Marshal Commanding-in-Chief, and invite attention to the necessity for the issue of such orders as will prevent recurrence of a practice which was condemned in 1878.

TONNAGE.
S. S. *Scotland.* Engagement of—for a second trip to Kurrachee.

TOUR.
His Excellency the Commander-in-Chief.

VOLUNTEER CORPS.
Bombay Volunteer Rifle Corps; Appointments. Mr. F. Little elected 2nd Lieutenant in the room of Sub-Lieutenant Bedford, resigned.
Grant of commissions to certain officers of the—
Inspection of the—
Resignations. Surgeon-Major Knapp resigns his commission.
G. I. P. Railway. Commissions for certain officers of the—
Promotion of certain officers to the rank of Lieutenant.
Volunteer Corps. Resignation, Lieutenant A. Witts.

WATER-SUPPLY.
A charge on account of extra bhisties entertained for the 16th Regiment, N. I, at Nusseerabad, sanctioned.
Aden. Charges on account of condensed water supplied to the Political Resident and Commandant at Aden.
Jask. Entertainment of a bhistie for supplying water to the detachment of Native Infantry at—
Sinking of a well near the lines of the detachment of the Marine Battalion at—
Kurrachee Native Infantry Regiment quartered in the FitzClarence Lines.
See Establishments.

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Abbottabad. Allowance for station staff hospital assistant.
Abdullah Khan, Subadar-Major, 26th Native Infantry. Grant of land.
Abdul Rahman Khan, Police Inspector. Offers services across the Frontier.
Ammunition, percussion caps. Kapurthala State.
Henry-Martini. Issue to Volunteers.
Atta Singh, Naib Resaldar. Provision for family.
Audit of stallion bills.
Bagh Singh, Havildar, 6th Punjab Infantry. Pension for widow.
Bassawa Singh, candidate for military employ.
Bhaggat Singh, Havildar, 4th Punjab Infantry. Pension for widow.

Bill. No. 2 Mountain Battery, for feed of cattle for December 1878.
1st Sikh Infantry, for feed and keep of cattle for October 1878.
for ditto November 1878.
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2nd Punjab Infantry, for 5 mules purchased.
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for camel hire from Dera Ghazi Khan to Tonk.
for camel hire from Dera Ismail Khan to Dera Ghazi Khan.
4th Punjab Infantry, for feed and keep of cattle for December 1878.
6th Punjab Infantry, ditto ditto.
for oil consumed at outposts.
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for feed and keep of stallions for December 1878.
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Gujrat, for feed and keep of stallions for December 1878.
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Hazara, for expenses of a camel to Peshawar.
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for supplying drinking water to outposts.
Dera Ismail Khan, for pay of Militia for December 1878.
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Arrangements for supply.
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Camels. Impressment—Kabul Campaign—Rohtak.
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Derajat Police, Enfield carbines. Issue.
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Hastings, Captain, 2nd Sikh Infantry. Application for promotion.
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Veterinary inspection—Roads—Prevention of glanders.
Volunteers, 1st Punjab Volunteer Rifle Corps—Staff Pay—Sergeant Instructors.
Ditto ditto Indent for 20 targets.
2nd Ditto ditto Accounts.
Waziri raid—Dera Ghazi Khan—outposts garrisons.
Conduct of Bhittannis.

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Assistant Surgeons appointed to base field hospitals.
Bandowala. Construction of a well.
Bannu troops. Disposition—Wing 5th Punjab Cavalry.
to be recalled.
border—quiet.
Blankets sanctioned on payment for Native infantry regiments.
Boat-bridge over the Adizai river. Enquiry about—
Bullock train, Jhelum. Speedy delivery of Government packages.
Kohat and Thal. Despatch of two carts daily.
Camel load in Punjab infantry regiments on hill roads, 4 maunds only.
Camels collecting in the district of Muzaffargarh.
Carts and mules collected by Deputy Commissioner of Lahore.
Furnished by Ferozepore district.
Carriage collected in Lahore district.
Demand made by Lieutenant Christopher withdrawn.
Sialkot district, unlimited demand.
Carts working on the Peshawar and Kohat line at Jhelum.
Daly, W. W., Mr., applying for police appointment on North-Western Frontier.
Dames, M. L, Mr. Assistant Commissioner, to proceed to Sabi.
Dera Ismail Khan. Abstract disposition return of troops.
Establishments for collection of supplies in the Peshawar Division.
Fasken, C. G. M., Lieutenant, in bad health.
Fort of Mardan to be garrisoned by pensioners.
Graves, Miss. Free passage by troops-ship sanctioned.
Jhelum bullock train. Speedy delivery of Government packages.
Kohat. Command of the troops.
Detail of troops.
Lindsay, Mrs. Free passage by troops-ship sanctioned.
Madho, Constable, transferred to 3rd Sikh Infantry as a sepoy.
Mahsud Waziris—making their way to Tank Zam outpost.
Mardan Fort to be garrisoned by pensioners.
Militia, Southern Derajat. Command—staff pay.
Outposts to be occupied by military troops.
(extra) previously sanctioned, to cease.
Movements of troops to quell disturbance at Tank Zam post.
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Girni. Attack, killed, wounded and captured.
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2nd Native Infantry will return to Kohat.
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remain at Mithankot and Rajanpur.
Mules, Jullundur District. 400—sent to Quetta.
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and Yaboos purchased by Commissariat Department.
Native officers at Zam post. Conduct during Wazuri raid.
Officers' families. Free passage by troop-ship.
ordered to return to duty.
Outposts. Weekly return of garrisons to be submitted.
Outpost of Dera Ghazi Khan and Rajanpur. { Conduct of Native officers. / Increase to garrison. / Present garrison of each required.
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Murtaza. Mianis dismissed from 1st January 1879.
Tank Zam. { Mahsud Waziris, disturbance. / Movements of troops, &c. / Raid on British territory. Firing of the town of Tank, killed, &c.
Policemen. Terms on which they may enlist into line regiments.
Postal arrangements between Jamrud and head-quarters.
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Powell, C. F., Captain. Died of wounds received in action, 13th December 1878.
Punjab Frontier Force. Mountain Batteries. Lascars sanctioned for guns, &c., deposited in Kohat Fort.
Proportion of drivers sanctioned.
No. 1, Mountain Battery. Increase to driver company necessary.
No. 4, Mountain Battery. Extra blanket for each mule odered.
Increase to driver company necessary.
No. 5, Garrison Battery. Temporary establishment sanctioned.
Cavalry regiments. Relaxation in rules for payment of horse allowance to recruits not considered necessary.
2nd Punjab Cavalry. Requiring an advance of Rs. 15,000.
4th Punjab Cavalry. Ressaldar Nasir Khan and Daffadar Sikandar Beg to join.
Captain Wylie at Dadur, recalled.
Punjab Frontier Force. 4th Punjab Cavalry. Officiating appointment of Commandant, Major T. O. Underwood.
5th Punjab Cavalry. Detachment marched towards Bannu on 10th instant.
Infantry Regiments. Camel load on hill roads only 4 maunds.
2nd Sikh Infantry. Marched for Quetta on 9th instant.
1st Punjab Infantry. Promotion of Native Officers.
3rd Punjab Infantry. To march from Dera Ghazi Khan to Kolachi.
Arrived at Tank on 12th instant.

Miscellaneous. Advance for recruiting purposes.
Camel load on hill roads only 4 maunds.
Lascars sanctioned for keeping in order the guns and equipment deposited in Kohat Fort.
Officers' families. Free passages by troop-ship sanctioned.
Recruiting. Progress made.
Weekly return of distribution of troops to be submitted.
Punjab Chiefs' Contingents. Advance for pay to General Watson, C.B., V.C.
Artillery ammunition. Arrangements.
Bahawalpur Contingent. "Present State" weekly.
To march to Dera Ismail Khan and Dera Ghazi Khan.
Arrived at Dera Ghazi Khan on 9th instant.
Enfield rifles and ammunition.
Medical officer for station of Dera Ghazi Khan.
Surgeon J. Hunter appointed, arrived.
Separate command.
Books of regulations for deputy assistant quarter-master-general.
Camped at Kanna near Rawalpindi.
Cane, R. E., Major. Services applied for—
Carbines. Four hundred and fifty smooth-bore—and ammunition required for Patiala, Kapurthala, and Faridkot Contingents.
Deane, J. R., Honorary Surgeon-Major, recommended for medical appointment.
Designation. Medical officer, muzzle-loading weapon.
Faridkot Contingent. Carbines and ammunition.
Supply of arms and ammunition. Papers to be returned.
Golab Singh, Captain. Aide-de-Camp to General Watson, C.B., V.C.
Gray, R., Surgeon-Major. Medical officer, subordinates and 22 cases of medicines to proceed by rail to Jhelum.
Resigns appointment.
Kapurthala Contingent. Two six-pounders, smooth-bore, condemned and to to be replaced.
Carbines and ammunition.
To proceed to Bannu.
Medical subordinates and two assistant surgeons required.
Movements of the contingents. Musketry instruction.
Commissariat and ordnance matters.
Musketry instructors ordered to join at Jhelum.
Nabha contingent to placed to Bannu.
Officers. Appointments and staff salaries sanctioned.
Patiala contingent. Carbines and ammunition.
Pearson, A. J., Captain. Services applied for.
"Present State." Weekly—
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by Mahsuds on Tank border.
Attack on Dera Ismail Khan border.
Railway, Sindh, Punjab and Delhi. Complaint—detention of baggage.
not required from Sukkur to Dadur.
Road. Kohat-Thal. Enquiring when the the repairs will be completed.
Construction, not repairs. Report of progress to be furnished.
Construction through Khyber-Pass. Labor.
From Rawalpindi to Thal for wheeled traffic.
Roads under military works branch excepted from decision that orders be sent direct to this Government.
Rothney, E. C., Lieutenant, in bad health.
Route. Dera-Bugti, Bandowala, Rajanpur. Shelter for supplies, &c.
Kusmore—will not be issued.
Thal-Chotiali to Quetta.
Through Gumal Pass. Memorandum by Major Macaulay, Deputy Commissioner.
Shankar Das recommended for special reward.
Sher Shah. Crossing of troops—wages of boatmen.
Steam ferry at Sukkur necessary for the present.
Steamer "Indus." Hire up to 31st December 1878.
Hire from Mithankot to Sukkur.
Steamers. To be returned to Sindh, Punjab and Delhi Railway Company.
Hire and fuel supplied. Bills for Rs. 43,776-7-0.
Supplies. Surplus collected by Deputy Commissioner of Dera Ghazi Khan.
Collections establishment—sanctioned, Peshawar Division.
Srgeons, Assistant, appointed to base field hospitals.
Sym, J. M., Major, to be Officiating Assistant Adjutant-General, Punjab Frontier Force.
Tank border. Raid by Mahsud Waziris.
Employment of guns not necessary.
Telegram not delivered. Rs. 3 refunded.
Telegraph line, Thal. Interruption.
Trans-Indus territory. Protection.
Tribes on Hazara Frontier. Conduct.
Tube Wells. Four available for use on Quetta route.
Well at Bandowala. Construction.

STATEMENT No. II.

Statement showing the subjects which emanated from the Government of India and were referred to the Governments of Madras, Bombay, and Punjab during the month of January 1879.

ACCOUNTS.

RECOVERIES.—Falconnet, Lieutenant-Colonel G. P. deP., R.E., Madras—Sum due to Sappers' mess.

REDUCTIONS AND SAVINGS.—Tents for soldiers' families—Question of maintenance and charge.

REMITTANCES.—To be made by Brigadier-General—Decision regarding the extent of—noted in Pay Code.

APPOINTMENTS.
ACCOUNT DEPARTMENT.—Gillilan, Colonel T., C. M. A., Madras—Vacation on attaining colonel's allowances.
CIVIL.—Cody, Surgeon-Major T., Bombay Medical Establishment, now under Baroda State—Replaced at Bombay Government's disposal.
Searle, Colonel G. A., M. S. C., not required by Public Works Department on expiry of leave.
Walker, Colonel J. T., R.E., Surveyor-General of India—Retention till he succeeds to Colonel's allowances.
COMMISSARIAT DEPARTMENT.—In place of Colonel W. B. Seton, Deputy Assistant Commissary-General, Bombay, proceeded to Mooltan on field service refused.
MEDICAL DEPARTMENT.—Officers proceeded to India to fill vacancies on Indian Establishment—List.
PERSONAL STAFF.—Dean Pitt, Captain D. C., A.-D.-C. to His Excellency the Governor, Bombay, also to officiate as Orderly Officer to Brigadier-General R. Phayre.
APPOINTMENTS.
REGIMENTAL.—4th Punjab Infantry, Punjab Frontier Force.
Martin, Lieutenant A. R., wing officer, 5th Goorkhas, as Adjutant.
Orr, Lieutenant W. J., Acting Sub-Assistant Commissary-General, temporarily at Foreign Department's disposal for employment with Bhopal contingent.
ARMAMENT.
FORT ST. GEORGE.—Guns, 9" 12-ton—Statement of charges connected with transport to Madras.
Wagons for taking guns from Bombay to Madras; charge for altering.
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Bandsmen, Native infantry regiments—Instruction in musketry.
Bayonets—New pattern for three presidencies as a reserve.
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Pistol revolvers, Deane and Adams'.—Demand by Bombay Government from Secretary of State.
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AMMUNITION.—Snider for escort, Political Resident, Persian Gulf.
ARMY LIST.
For Assistant Quartermaster-General, Poona Division, refused.
Pages, Corps of Volunteer Forces in India—Inclusion in monthly War Office Army List proposed.
ARTILLERY.
In Madras and Bombay Presidencies—Distribution returns, dated 27th September and 1st October 1878.
BOOKS.
WAR OFFICE FORMS.—Nos. 298 and 1114—(Annual return of sick and wounded—Annual confidential report on officers). Distribution.
CAMPS.
Thobba—Question of cost of taking up land.
CANTONMENTS.
Mooltan—Compensation for extension.
CLOTHING.
Hospital Sergeants of Artillery—Application for extension of provisions of G. G. O., No. 705 of 1878.
———————Enquiry as to, issued at home.
Soldiers' wives and children—Issue of woollen or worsted stockings in lieu of socks on voyage home.
BADGES.—Madras (Queen's Own) Sappers and Miners—Addition of *sphinx* approved.
Sergeants of Royal Artillery employed on coast defences at Bombay, Aden, and Kurrachee to wear distinguishing letters C. D.
BRITISH ARMY.—Ankle boots for 14th Hussars—Indent sent to Secretary of State.
Badges for Glengary caps—Explanation why supply was not brought out for 1878-79 with 2-13th Foot.
Kit-bag, issue to every soldier of valise-equipped British regiments serving in India who has not received one at the public expense; such issue to be made from the Clothing and not Ordnance Department.
NATIVE ARMY.—Bombay supplementary indent—Compliance promised by Secretary of State.
Boots and shoes, English and country-made, for troops going on service—See *Field Operations—Kabul.*
COMMANDS.
ARMY.—Elmherst, Lieutenant-General C., Commanding Mysore Division, to conduct duties at seat of Government as Acting Commandant of Madras Forces.
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BEDDING.—Blanket, extra—Issue last November to detachment 2-17th Foot.
Blankets to Native Infantry, Punjab Frontier Force.
———— for troops arriving at Bombay from England—Secretary of State asked for—
Mattresses and pillows for invalid railway carriages, Deolali.
CARRIAGE.—Bullocks for Kurrachee arsenal—Hire temporarily.
ESTABLISHMENTS.—Depôt Hospital, Deolali—A second class purveyor during trooping season allowed.
Executive Commissariat, Bombay—Clerk to supply disinfectants to Hyderabad Contingent and Civil Department, Berar—Declined.
ESTIMATES—For stores for the three presidencies during 1879-80—Sent to Secretary of State.
INDENTS AND ESTIMATES.—Basins, wash-hand, steel—Reduction in Madras indent for 1879-80.
For stores required during 1879-80 and 1880-81 in Madras, Bombay, and Bengal.
Indent for stores for Bombay for 1879-80—Sent to Secretary of State.
RATIONS.—Scale refused to detachments, 2nd Sind Horse and 29th Bombay Native Infantry, on escort duty beyond the Bolan Pass.
REGULATIONS.—Madras Code, 4th edition—Distribution.
SUPPLIES.—Articles required by Principal Medical Store-keeper, Madras—Grant for purchase.
Firewood, free, to public followers when proceeding by sea.
———— for hospitals, Native troops, Dehra Ghazi Khan, from 19th November 1878.
Lamps and lighting material—Scale for adoption in Bombay Presidency.
Lime-juice to 16th Bombay Native Infantry at Nusseerabad—Admission of charges.
COMPLAINTS.
OFFICERS.—Civil and Military in Port Blair Settlements under direct control of Superintendent.
Morris, Surgeon-Major J. C., Civil Surgeon, Amritsar—Prayer for payment to him of half-pay of Deputy Surgeon-General E. Menzies.
CORRESPONDENCE.
G. G. O.—Republication in official Gazettes of Madras and Bombay.
Public information acquired by a Government servant in his official capacity—Resolution about communicating—
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Re-assembly of committee at Simla, and appointment of members and draftsmen.
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Featherstonhaugh, Captain A., R.E., Assistant Adjutant-General—Appointment.

DISCIPLINE.
Gahan, Captain G. B., M. S. C., Cashiered for drunkenness.
DISTRIBUTION OF ARMY.
RELIEFS.—Outward and homeward—by Indian troopships during 1878-79.
DISTURBANCES.
RAIDS.—Hazara border—Measures for protection.
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Cavalry Regulations—Delay in publishing translation.
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Soldiers.—Employment as signallers in Bombay,
and Telegraphy.—Uniformity throughout India in mode of instruction, which should accord with the system in England.
Telegraphy—Instruction at Bombay of non-commissioned officers.
"*Unit system*"—Meaning of—
GYMNASTICS.—Standards and tapes used in gymnasia for measuring—Application to Bombay of sanction to alter—
Jerseys and socks, woollen, for gymnastic instructors—Extension to Madras and Bombay of G. O. C. C. 286, 15th August 1878.
MUSKETRY.—Field range-finder and Hand-book, Watkins'—Supply.
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Soldier-signallers. Pay raised while on field service.
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Pay when on field service.
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Connele, Monsieur D.—Told address of his brother F. Mathias.
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Expedition against the Subdihi tribes, and use of doolies and dandies in lieu of kajawahs.
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Valise for garrison batteries in Bengal and Madras.
BRITISH ARMY.—Bullocks for new equipment, and revised proportion of ammunition for heavy batteries.
Eye fringes refused for bullocks of heavy batteries and horse and field batteries.
Martini-Henry rifles—Arming royal artillery in Bengal.
Table revised for R. M. L. siege trains—Distribution of copies.
Carbines—Aden troop, paid for—men entitled to compensation.
NATIVE ARMY.—Stores, engineer, to be kept in reserve in arsenals—Delay in completing tables of promotion.
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Boat, Government, for bazar parties of lascars at Manora, to visit Kurrachee.
DEPARTMENT.—Assistant Quartermaster-General, Sind Division.—Increase to office of—
Ramchunder Keroba, clerk, A. G.'s office, Bombay—Retained after 55 years of age.
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Weighmen—Reduction of the 3rd per Regiment, Native cavalry, Bombay.
STATION.—Conservancy at Baroda—Revision.
———for Kurrachee—Additional.
ESTIMATES.
BUDGET.—Madras, special assignments for executive commissariat officer, Bellary.
Madras—Special grant to executive commissariat officer, Secunderabad.
——— Supplementary grant for commissariat, clothing and railway charges for troops going on field service.
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Veterinary Surgeon for 1st Bombay Light Cavalry.—Explanation of necessity.
NORTH WESTERN FRONTIER.—Joaki Afridis—Final report of the military operations.
FURLOUGH.
To Europe.
Colvill, Surgeon-Major, W. H., Civil Surgeon, Baghdad—Bombay Government application for papers.
Saunders, Lieutenant-Colonel J. B., Bengal Cavalry—Report of conduct before and whilst in Colaba Lunatic Asylum.
NON-COMMISSIONED OFFICERS.—British service on rolls of sappers and miners—Proposed grant.
REPORTS.—Gulliver, Colonel H. W., R E.—Arrival, to spend remainder in India.
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Prizes to horse-breeders—Modifications of rules.
ARTILLERY.—Loodiana disease—Outbreak in G-3rd and D-4th—Report of Principal Veterinary Surgeon and examination of soil of horse standings at Rawal Pindi.
FORAGE.—Compensation for dearness—for 2nd charger—Order for grant to Ressaidars and Woordie-Majors of cavalry of Punjab Frontier Forces, to have retrospective effect—Case of 3rd Punjab Cavalry.
REMOUNTS.—Arab and Persian—Purchase at Bombay.
For Bengal Presidency during 1878-79.
Rejections by Committee last October—Particulars.
STUD.—Donkey stallions and mares from Cabul.
Norfolk trotter—Gift to Rajah of Faridkote.
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———which arrived in Bombay on the *Serapis*—Condition.
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GUIDES.—Guide corps class, Thomason College, Roorkee—Report.
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Zakkakhels with rifles from Guide Corps—Report.

MEDICAL DEPARTMENT.

ESTABLISHMENTS.—Medical store depôt, Madras—Temporary clerks not made permanently subject to report after 12 months.

HOSPITAL EQUIPMENT.—Kajawahs for wounded and sick men—Construction at Ferozepore arsenal, sanctioned.

Mule trunks for carriage of hospital stores on line of march and on service—Trial in Bombay.

Pettarahs and medical companions for conveyance of medical stores on line of march—Pattern.

INDENTS AND ESTIMATES.—Chloroform for Madras promised.

STORES.—Instruments, proposed local manufacture in Bengal.

simple, manufacture in Bombay Medical Store Depôt.

SUBORDINATE.—Apothecaries of Bengal and Madras establishments recommended for honorary rank of surgeon.

Men with a knowledge of English for hospital assistant class—Modification of orders for securing unnecessary—

MILITARY BUILDINGS.

BRIDGES.—Boat, permanent, at Kushalgurh—Maintenance.

NATIVE LINES—In Bombay Presidency—Proposed construction by Public Works Department.

Marine battalion detachment, Gwadar—Incidence of cost for making improvements.

ORDNANCE.

Coal for Kirkee Factory—Description.

CAMP EQUIPAGE.—Pâls, lascar of Hazara Battery—Alteration.

TENTS FOR Madras—Local manufacture; all to conform to standard patterns.

ESTABLISHMENTS.—Depôt at Sukkur unnecessary.

INDENTS—Ammunition for 6·3-inch howitzer.

Ammunition for siege train.

Bengal, special, for guns, ammunition carriages, and other stores for R.M.L. siege trains and heavy batteries in three presidencies.

Carriages and equipment for 6 3-inch howitzers, promised by Secretary of State.

Coal from England for gunpowder factory, Kirkee.

Equipment Regulation—Copies required by Madras and Bombay.

Forms (I. O), Indian ordnance requisition—Introduction for use of siege train in the field.

Guns, R. M. L., and carriages, wrought-iron, for siege trains and heavy batteries in India—Number demanded from England.

Howitzers, 6 3-inch—Advice of shipment of ten to Bombay.

Madras indent for coal complied with by Secretary of State.

Pistols, B. L. rifled ·577 bore, with ammunition, for 1st Bombay Light Cavalry—Demand cancelled.

Shells for 6·3-inch howitzer.

Siege train and heavy battery requirements of three presidencies—Final orders.

Stores—Annual from Madras for 1878-79—Compliance with.

Wheels, spare 40-pr. siege train, to be made up locally.

ORGANIZATION—Arsenal, Belgaum—Question of abolition.

Arsenal, Ferozepore—Question of transfer.

———, Fort St. George—Question of position.

———, main, for Western India—Question of location, whether at Bombay or Kirkee.

———, Secunderabad—Question of abolition.

Depôts at Hyderabad Contingent, Aurangabad, Ellichpore and Hingole—Question of abolition.

Depôt—Proposed at Kirkee.

Factory, Cawnpore—Question of supply of harness, &c., to Madras and Bombay.

Foundry and Shell Factory, Cossipore—Proposed maintenance.

Gun-Carriage Factory, Bombay—Question of abolition.

Small-Arm Ammunition Factory, Kirkee—Question of extending.

Stores—Supply to depôts.

STORES.—Ammunition boxes of field artillery—Adoption of spring lock besides hasp and spring-turn buckle for securing lids.

Graphite for glazing gunpowder—Trial in factories in India.

Howitzer, 6·3-inch R. M. L.—Practice result report.

Howitzers, 6·3-inch, &c., to be sent to Ferozepore from Bombay on arrival from England.

Hydraulic jack for Gunpowder Factory, Bombay.

Lists of changes in war matériel—Application to India of clauses.

Martini-Henry ammunition, mark IV—Manufacture at Kirkee.

M. L. R. howitzers of 18 cwt., ten 6·3-inch wrought-iron supplied to Bombay—Examination papers.

Oil bottles for Native cavalry armed with Snider carbines.

Pattern for the three presidencies—Supply by Secretary of State.

Strengthening plates to gun-carriages with box girder axle-tree beds—Correction of order allowing.

Pebble powder manufactured at Madras—Experimental trial; and supply for trial of gunpowder sample from England.

Scales and weights for batteries at Bombay, Kirkee, Mhow and Aden.

Under provision by Director-General of Stores for India—Bi-monthly return forwarded by Madras and Bombay.

Under supply from England to Madras and Bombay—Bi-monthly returns to be regularly furnished.

Wheels for 6 3-inch howitzer carriages ordered to be made up at Fatehgarh Gun-carriage Factory.

————40-pr. siege train, Bombay, to adapt for carriages and limbers of 6·3-inch howitzers arriving from England.

PAY AND ALLOWANCES.

Staff salary—Reduction for command of European veterans.

Sums payable in England under G. G. Os. 716 and 913 of 1878—Statements—Madras and Bombay.

Sums payable in England under G. G. Os. 716 and 913 of 1878—Statement.

Hammick, Captain H. V. A.
Bell, „ S. W.
Onslow, „ F. M.
—Kabul Mission during absence of Sir N. Chamberlain, Envoy.

Holberton, Lieutenant-Colonel T. N, Royal Horse Artillery
Prichard, Major H. F. 1st Brigade, Royal Artillery.
—Arrears as Commandant No. 1 Mountain Battery at Rajkot and No. 4 Light Field Battery at Hyderabad, respectively, sanctioned.

Passy, Lieutenant D. D., Officiating Wing Officer and Quartermaster, 4th Madras Native Infantry—Staff allowances of Wing Officer refused.

PAY AND ALLOWANCES.—*contd.*
Taylor, Lieutenant-Colonel J. C., R.A.—Arrears of pay—Rate of exchange.

BRITISH ARMY.—Insane of the Kolaba Asylum.
Officers on retired list—Claims.
COLONEL'S ALLOWANCE.—Gillilan, Colonel T., Controller of Military Accounts, Madras.
CONTRACT ALLOWANCE.—Wyllie, Major O., R.A.—Appeal against deduction from his salary.
WORKING PAY.—Sappers and Miners unauthorizedly granted by Madras.

PENSIONS.
Johnston. Pensioned Quartermaster Sergeant D.—Documents sent to Controller of Military Accounts.
BRITISH SOLDIERS.—Men of ordnance artificer company, Madras—Rate admissable after 22 years' service—Case of Sergeant Instructor Jones, Ordnance Department.
Bunyer, Hon'ble Captain F., Ordnance Department—Special refused.
Jones, Wheeler Sergeant W.—Payment.
Thomas, Chelsea out-pensioner W.—Documents sent to Controller of Military Accounts.
NATIVE SOLDIERS.—Supernumerary Native officers, Bombay—Allowed higher rate under G. G. O. No. 96 of 1878—Case of Ressaldar Sheik Medee Hussun, 1st Sind Horse.

UNCOVENANTED.—Jumah Kalloo, late under maistry smith, Ordnance Depôt, Neemuch—Invalid, recommended.
Jumboo Lingam, late head clerk, Cattle Farm, Bombay—Refusal to interfere in decision in case.
WIDOWS AND ORPHANS.—Grogan, Mrs. M. A., *alias* Freeman, widow of Gunner D. Grogan, Bombay Artillery—Arrears refused.
Singu, son of Magna, late sepoy, 2nd Sikh Infantry.

REGIMENTAL INSTITUTIONS.
Canteens—Establishment on tenant system at Aden refused—Suggestion for preventing increase of property (case of 1-8th Foot).

RETIREMENTS.
STAFF CORPS.—Ellis, Lieutenant-Colonel J. A., Madras.

REWARDS.

Durrian Singh, Solomon Elijah, Danieljee Israel, Munnoo Coonbee,	Subadar-majors	18th, 19th, 4th, 5th	Bombay Native Infantry.	1st		class stars sent.
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Moses, Subadar-major, 12th Native Infantry—Star of 2nd class with title of Bahadur.
Sheik Rahim, Subadar-major, 13th Native Infantry—Admitted to 2nd class.

SALUTES.
NATIVE CHIEFS.—Amended table.

SANITARY.
EPIDEMICS—Cholera register revised—Supply to Madras.
LOCK HOSPITALS.—Aden—Occupation of building formerly used as small-pox hospital.
REPORTS AND RETURNS.—Medical and sanitary of Madras Native army for 1877.
Statistics—(Sickness and mortality) among European soldiers in military prisons in Madras presidency—Supply.

SCHOOLS.
BOOKS.—Hindustani—Despatch to A. G., Bombay.
Required for the Bombay army during 1879-80—Indent.

SERVICE.
BRITISH ARMY.—Soldier's short service—Period of retention in India.
OFFICERS.—Heaviside, Captain W. J., R E.
Pottinger, Lieut.-Colonel B. H., R.A. } —Local election noted.
Reid, Colonel J. H., Royal (late Bo.) Artillery—Appeal against decision debarring him from local service.

SPECIAL.
FAMINES.—Lamb, Lieutenant H. C, 4th Bl. Cavalry—Services replaced at Commander-in-Chief's disposal.
POLITICAL.—Officers on duty in Gilgit—Insufficiency and relief of escort.

STAFF CORPS.
PROBATIONERS.—Bengal Presidency—Bombay Government's application for form of Commanding Officer's certificate.
Direct—Extension of term during which the pass signal test left to local Commander-in-Chief's discretion—Case of Sub-Lieutenant H. D'O. Keary.

TRANSPORT.
BAGGAGE.—To be taken by 1st and 2nd class warrant officers on Indian troop or hired freight ships.
OFFICERS.—Proceeded on field service—In troopship to relations *bonâ fide* members of family.
Royal Engineer retiring under warrant of 9th September 1878 for whom accommodation in a troopship is not available—Passage money inadmissible.
Royal (late Indian) Artillery retiring under royal warrant of 6th September 1878—In troopships for sons.
Wives and families of chaplains on field service—In troopship refused.

Bisset, Major W., commanding A-6th Royal Artillery—In troopship for niece.
Read, Lieutenant J. B. H., 2-1st Foot, on half-pay—To England approved.
RAILWAY.—Dhond and Manmad opened for conveyance of troops.
SEA.—Returns of commissioned, warrant, and non-commissioned officers sent home on P. and O. vessels—Instructions for preparing.
TABLE MONEY.—Gallagher, Sub-Conductor P., Commissariat Department, Bombay, to wife and children who messed themselves.
WARRANT OFFICERS.—And families when proceeding to England under circumstances which do not entitle them to free conveyance in troopship conditionally.
WOMEN AND CHILDREN.—Rogers, son of a time-expired man of 68th foot who is unfit for enlistment, to England.
Sales, late Private T., 66th Foot, in troopship for widow and children.

VOLUNTEER CORPS.
At Bellary—Formation.
Madras Guards—Adjutant—higher rates of staff pay and allowances.
RETIREMENTS.—Trotter, Captain E. W., 1st Punjab Volunteers, allowed to retain rank and wear uniform of corps.

Statement showing the subjects on which references were made to the Government of India by the Government of Madras during the month of January 1879.

ACCOUNT DEPARTMENT—ESTABLISHMENTS.

Letter from the Government of India, stating that the applications from the Pay Examiner and the Presidency Paymaster—the former for an increase to, and the latter for a reorganization of, his office establishment—are under consideration, and offering remarks regarding the proposed increase to the salary of the Head Assistant of the Presidency Paymaster's Office, communicated to the Controller of Military Accounts.

APPOINTMENTS.

Arrangements made for the probation of candidates for the army pay department in India, approved by the Home Government.

APPOINTMENTS—ACCOUNT DEPARTMENT.

Reply to letter from the Government of India on the subject of making Lieutenant H. F. Cadell's services available for appointment to the Military Account Department.

Report of the Controller of Military Accounts that Lieutenant H. F. Cadell has satisfactorily passed the preliminary examination for appointment to the Military Account Department, forwarded to the Government of India.

APPOINTMENTS—EXCHANGES.

Government of India addressed on the subject of exchange between Captain A. E. W. Hemans, Madras Staff Corps, and Captain H. H. Kelly, 56th Foot.

APPOINTMENTS—REMOVALS.

Correspondence regarding the removal of Major A. E. Arbuthnot from his appointment of Officiating Squadron Commander, 1st Madras Light Cavalry.

APPOINTMENTS—RETIREMENTS.

Decision of the Government of India that the ruling relative to the pay and allowances admissible to Royal Artillery officers now retiring under the Royal Warrant of 6th September 1878, until gazetted in India, should be held equally applicable to royal engineer officers, communicated to the Acting Commander of the Forces and to the Public Works Department.

Retirements of officers of the Indian Staff corps and Local Service to be gazetted as "subject to Her Majesty's approval," and reported to the Secretary of State without delay.

Telegram from the Home Government, giving the names of Royal Artillery and engineer officers who retire under the Royal Warrant of 6th September 1878, and intimating the arrangements that should be made to relieve them of their present duties, communicated to the Acting Commander of the Forces for issue of the necessary orders, and to the Public Works Department.

Telegram from the Government of India, intimating that Colonels Wallace and Cookes retired and should be relieved at once from all military duties, communicated to the Acting Commander of the Forces.

APPOINTMENTS—TRANSFERS.

Decision of the Government of India, Public Works Department, to replace Colonel G. A. Searle's services, on the expiration of his leave, at the disposal of the Madras Government, communicated to His Excellency the Commander-in-Chief.

BARRACKS AND BUILDINGS—MILITARY PRISONS.

Letter from the Quarter-Master-General on the subject of prison accommodation at Kamptee, forwarded to the Government of India.

CANTONMENTS—CONSERVANCY.

Acceptance of the offer of the Madras Municipality to take over the conservancy of the Vepery Lines at a monthly charge of Rs. 100, sanctioned.

CLOTHING—BADGES.

Addition of the badge of "The Sphinx" to the other devices and distinctions of the Madras Queen's Own Sappers and Miners, approved by the Home Government.

CLOTHING—BRITISH TROOPS.

Hawkes' helmets condemned, and the provision of wicker helmets under regimental arrangements as heretofore ordered.

CLOTHING—NECESSARIES.

Extract from a despatch from the Home Government, intimating that the War Office has been requested to address the necessaries for the 13th Battery, 8th Brigade, Royal Artillery, to Aden, communicated to the Clothing Department.

COMMANDS.

Despatch from the Home Government on the subject of removing the present ineligibility of lieutenant-generals to hold divisional commands, and of the eligibility in future of major-generals to hold brigade or district commands, communicated to His Excellency the Commander-in-Chief.

COMMISSARIAT—MEDICAL SUPPLIES.

Supplementary grant of Rs. 2,177-1-9 required to meet expenditure on account of certain stores required by the Principal Medical Store-keeper, sanctioned by the Government of India.

COMMISSARIAT—RATIONS.

Ruling of the Government of India that free, rations are only admissible to troops on service beyond the Bolan Pass, and not to escorts who merely proceed to Quetta and then return to India, communicated to His Excellency the Commander-in-Chief and Departments concerned.

COMPLAINTS—OFFICERS.

Letter from the Government of India, requesting that paragraph 4 of the Home Department Notification No. 475 of 1874, which distinctly places "all officers, civil and military, under the direct control of the Superintendent of the Andamans," may be brought to the notice of His Excellency the Commander-in-Chief, Madras.

CORRESPONDENCE.

Resolution of the Government of India on the subject of the communication to the public of information which has come into the possession of a Government servant in his official capacity, communicated to His Excellency the Commander-in-Chief.

DISTRIBUTION OF ARMY—MOVEMENTS OF TROOPS.

Correspondence from the Government of India, requesting the Officer Commanding Pegu Division to hold in readiness a guard of thirty men, inclusive of Native Officers to proceed to Mandalay for the protection of the British Residency there, communicated to the Acting Commander of the Forces.

DISTRIBUTION OF ARMY—RELIEFS

Letter from the Government of India, requesting early information of any alteration that may be deemed necessary in the reliefs that are to be effected by sea, recorded for guidance.

Telegram from the Government of India, intimating that the B Battery D Brigade, Royal Horse Artillery, is not now required at Mooltan, and that the battery may be marched to Bangalore, communicated to the Acting Commander of the Forces.

DRILL AND INSTRUCTION—GYMNASTICS.

G. O. C. C. of 1878 regarding the substitution of woollen jerseys for the red serge shirts now allowed to gymnastic instructors, and the issue of an additional pair of woollen socks to each instructor, extended to the Madras presidency.

DRILL AND INSTRUCTION—TELEGRAPHY.

Correspondence from the Government of India regarding the pay of soldier-signallers on field service, communicated to His Excellency the Commander-in-Chief.

Orders passed on correspondence regarding the instruction of British soldiers in electric telegraph signalling.

EQUIPMENT.

Despatch from the Home Government, intimating that the Martini-Henry carbine introduced in War Office list of changes, clause 3215, is intended for the Royal Horse Artillery and field artillery, communicated to His Excellency the Commander-in-Chief and Inspector General of Ordnance.

Issue from the reserve stock for the 4th Hussars of Martini-Henry carbines to H Battery 1st Brigade, Royal Artillery, and B Battery B Brigade, Royal Horse Artillery, sanctioned by the Government of India.

EQUIPMENT—ARTILLERY.

Extension to the garrison batteries of Royal Artillery in the Madras presidency of the issue of valise equipment to replace accoutrements which have served their time, sanctioned.

EQUIPMENT—NATIVE ARMY.

Decision of the Government of India on the question of the supply of rifles to bandsmen of Native infantry regiments, communicated to His Excellency the Commander-in-Chief and the Inspector General of Ordnance.

Supply of oil bottles to regiments of Native cavalry armed with snider carbines, sanctioned.

ESTABLISHMENTS—STAFF OFFICERS.

Orders passed on the subject of placing the clerks of the Commander-in-Chief's staff on the same footing, as regards hill allowances, as those of the Government Secretariat.

Restoration to the service of P. Vurdarajulu Naidu, clerk in the office of the Deputy Assistant Adjutant General, who availed himself of the benefit of the Insolvent Act, sanctioned.

ESTIMATES—BUDGET.

Additional assignment of Rs. 11,000 applied for in favor of the executive commissariat officer, Bellary, sanctioned.

Special credit of Rs. 1,05,804 in favor of executive commissariat officer, Madras, also a further supplementary grant of Rs. 96,000 on account of the clothing and railway charges of troops proceeding on field service, sanctioned.

FIELD OPERATIONS.

Closing of the accounts of the Malta Expedition within the present official year, requested by the Government of India.

FIELD OPERATIONS—KABUL.

All stores and supplies required from England for the purposes of the Afghan Expedition should be obtained through the Military Department of the Government of India.

Concession of the grant of passages to England in a troopship extended to such relations of an officer as may be *bonâ fide* members of his family and dependent on him for a home.

Correspondence in connection with the formation of reserve division to assemble on the Lower Indus, recorded.

Decision of the Government of India that in the event of an officer being killed in action, free passages by troopship may, if available, be allowed to his family, whether the deceased officer belonged to the British or to the Indian service, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

Decision of the Government of India that batteries and regiments proceeding on service shall continue to be borne on the establishments of the presidencies from which they have severally been detailed, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

Government of India informed that the 21st Native Infantry left Bellary for Mooltan on the 6th January 1879.

Grant of horse allowance to the officers attached to the siege train proceeding on service from the date on which they may have provided themselves with horses, sanctioned.

Grant of free passages to their homes for the families of Native regiments ordered on service, sanctioned.

Intimation from the Government of India that the Bombay Government will supply suleetahs for Madras troops, communicated to the Acting Commander of the Forces and the Inspector-General of Ordnance.

It is observed that it is not intended to give a free passage home to the widow of an officer killed in action in *addition* to any passage allowance to which she may be entitled from any of the funds.

Policemen who may enlist into Native regiments, permitted to count two-thirds of their police service towards military pension.

Proposal to increase the salaries of the clerks of the commissariat department proceeding on field service approved by the Government of India.

Replacement by the Madras Government of the number of socks that may be issued by the Bengal commissariat to the 21st Regiment, Madras Native Infantry, requested.

Statement of the estimated cash requirements of the commissariat department for four months of the force which has proceeded or has been warned for field service on the North-Western Frontier, forwarded to the Government of India.

Telegram from the Government of India, intimating that the services of Lieutenant-Colonel G. A. Arbuthnot and the other officers detailed for the reserve division, ordered to assemble on the Lower Indus, are not at present required, communicated to the Acting Commander of the Forces.

The orders issued for the supply of warm clothing, &c., to the Madras troops at or beyond Jubbulpore, approved by the Government of India.

FUNDS—INDIAN SERVICES.

Intimation from the Home Government that separate *pro formâ* accounts of the Military Fund for the half-year ended 30th September 1877 will not be required, communicated to the Controller of Military Accounts.

FURLOUGH AND LEAVE—BRITISH SERVICE.

Grant of furlough to Europe to re-engaged non-commissioned officers of the British military service of good character borne on the rolls of sappers and miners, sanctioned.

HONORS AND REWARDS—GOOD-SERVICE PENSIONS.

Decision of Home Government regarding the eligibility of Major-Generals Spurgin and Raiks for the Indian good-service pension, communicated to His Excellency the Commander-in-Chief.

MEDICAL DEPARTMENT—STORES.

Correspondence from the Home Government relative to the supply of medicines to India, and the recommendation of the committee that medical officers when at home on furlough should qualify themselves by a course of study for the post of medical store-keeper, communicated to His Excellency the commander-in-chief and departments concerned.

ORDNANCE—ORGANIZATION.

Sanction for the appointment of a permanent park serjeant at Cannanore, declined. Proposed arrangement for the charge of ordnance stores at that station, approved.

ORDNANCE—STORES.

Adoption of a spring lock for fastening the lids of ammunition boxes of field artillery in addition to the hasp with spring turn buckle, sanctioned by the Government of India.

Correction in letter from the Government of India, sanctioning strengthening plates being added to gun-carriages fitted with box girder axletree beds, communicated to His Excellency the Commander-in-Chief and the Inspector General of Ordnance.

Supply to the Madras Presidency of new pattern baynotes for the Martini-Henry rifle, sanctioned by the Home Government.

PASSAGES.

Correspondence from the Government of India regarding the disposal of insane Native soldiers, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

PASSAGES—OFFICERS.

Correspondence regarding the provision of passage in Her Majesty's troopship *Euphrates* for Major Bisset's niece, recorded.

Grant of free passages to England to officers placed, in consequence of ill-health, on temporary half-pay, approved by the Home Government.

Letter fromt he Government of India, intimating that wives and families of chaplains on the Indian establishment are not included in the privilege allowed to the wives and families of military officers on field service of free passage to England in the troopships, communicated to His Excellency the the Commander-in-Chief and the Ecclesiastical Department.

Royal engineer officers retiring under the royal warrant of 6th September 1878 not entitled to passage money.

PASSAGES—RAILWAY.

Sanction accorded to the necessary addition being made to the transport regulations providing for the free conveyance by rail to port of embarkation and back of the husband or any other person who may be selected to proceed in charge of a woman of bad character ordered to be removed to England.

PASSAGES—SEA.

Return of officers, warrant officers or non-commissioned officers sent to England on P. and O. vessels, should in each case show whether the individual embarked as a Government passenger or received passage allowance.

PASSAGES—TABLE MONEY.

Correspondence from the Government of India on the subject of the deductions on account of messing of warrant officers on Board Her Majesty's Indian troopships, communicated to His Excellency the Commander-in-Chief.

PASSAGES—WOMEN AND CHILDREN.

Concession of free passage in a troopship when accommodation is available, extended to warrant officers and their families.

PAY AND ALLOWANCES.

Decision of the Government of India on the question of the grant of staff allowance to a wing officer who by the return of the permanent incumbent, becomes supernumerary in the regiment, communicated to His Excellency the Commander-in-Chief.

Decision of the Government of India on the claim of Major H. F. Pritchard, commanding H Battery 1st Brigade, Royal Artillery, to arrears of pay as Major for the period he served as commandant of No. 4 Light Field Battery of the Hyderabad Contingent, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

Lieutenant-Colonel Taylor's application to be allowed to remit to England the amount of his arrears of pay at the official rate of exchange which prevailed at the time the pay accrued, negatived.

Rate of pay and allowances admitted by the Home Government to Indian officers who, while on furlough in England, were ordered to proceed to Malta, and who have returned to England to avail themselves of the balance of their furlough, intimated.

The grant of usual salaries to Captains Hammick, Bell and Onslow during the employment of Sir Neville Chamberlain on special duty, sanctioned by the Government of India.

PAY AND ALLOWANCES—BRITISH ARMY.

Decision of the Government of India that only the lance ranks which are sanctioned by section 7, paragraph 69 of the Queen's Regulations and Orders for the Army, are entitled to the extra pay under paragraph 2 of G. G. O. No. 669 of 1878, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

PAY AND ALLOWANCES—WOMEN AND CHILDREN.

Claim of Mrs. Digby, widow of the late Bombardier Digby, to salary whilst employed as an acting assistant schoolmistress, in addition to subsistence allowance and rations for the usual period after her husband's death, admitted.

Letter from the Government of India, intimating that widows of drummers with Native corps are not entitled to subsistence allowance for one year after their husbands' decease, communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts. Proceedings of the Committee on the claim to pension of the widow of the late Drummer Laulman, 17th Native Infantry, confirmed.

Proposal to dispense with the previous sanction of Government for the admission of subsistence allowance to the wives of soldiers who marry without permission, sanctioned conditionally.

PENSION.

Claim of pensioned Farrier C. Mannas to the full pension of his rank negatived, and the grant to him of rice-compensation at the rate payable to a pensioned private, sanctioned.

Government of India informed why pecuniary liability was not enforced upon the officers under whom the defalcations discovered in the Pension Office at Mercara occurred, and why the military pension of the late Writer H. Taniffe was not cancelled.

Sergeant Instructor Jones, of the Ordnance Artificer Company, transferred to the non-effective establishment on a pension of Rs. 16-10-8 per mensem.

REGIMENTAL INSTITUTIONS—CANTEENS.

Instructions of the Government of India regarding the disposal of canteen property of troops leaving Aden, communicated to His Excellency the Commander-in Chief and the Controller of Military Accounts.

REGIMENTAL INSTITUTIONS—MESSES.

Government of India requested to recover from Lieutenant-Colonel G. P. de P. Falconnet, Royal (Madras) Engineers, Superintending Engineer, Meerut Command, Rs. 102, on account of donation to the sapper mess on promotion.

RETURNS—WAR OFFICE FORMS.

Revised War Office Forms of "Annual Return of Sick and Wounded" and "Annual Confidential Report on Officers," forwarded by the Government of India.

ROYAL ENGINEERS.
The terms under which royal engineer officers while on furlough in England will be permitted to go through special courses of instruction at the School of Military Engineering at Chatham, intimated by the Home Government.

SERVICE—British Army.
Soldiers enlisted for short service to be retained in India until they have completed their full term of six years.

STAFF CORPS—Half-pay.
Correspondence from the Home Government, permitting an officer on the half-pay list to return to duty in India on the report of the Medical Board of the India Office, communicated to His Excellency the Commander-in-Chief.
Despatch from the Home Government, intimating that, if the Medical Board of the India Office report favorable of the health of staff corps officers placed on the half-pay list, they will be permitted to return to India to rejoin the effective list without previous reference to the Local Governments, communicated to His Excellency the Commander-in-Chief.

STAFF CORPS—Probationers.
Correspondence on the subject of the paucity of young officers to serve with regiments and batteries in the Madras presidency, submitted to the Government of India.
Decision of the Government of India on the subject of the extension of the term during which direct probationers for the staff corps are required to pass either of the lingual tests, communicated to His Excellency the Commander-in-Chief.
Extract from a despatch from the Home Government, requesting that the nomination of officers as probationers for the Madras Staff Corps may be reported at once, in view to the vacancies in the regiments being filled with as as little delay as possible, recorded.

TRANSPORT—Indian Troop Service.
Telegram from the Horse Guards, intimating that the 29th and 78th Regiments proceed to India instead of 5th and 30th Regiments which remain in England, communicated to His Excellency the Commander-in-Chief.

VOLUNTEER CORPS.
Admission of the increased rate of staff pay and allowances to the Adjutant of the Madras Volunteer Guards, sanctioned.
Supply, on payment, of band instruments, for the Rangoon Volunteer Rifle Corps, requested by the Government of India.

WARRANT OFFICES—Furlough and Leave.
Delay in the submission of the furlough papers of certain non-commissioned officers brought to notice by the Home Government.

WARRANT OFFICERS—Promotions.
Roll of Deputy Assistant Commissary F. Clark for promotion to the rank of honorary lieutenant, forwarded to the Government of India.

Statement showing the subjects on which references were made to the Government of India by the Government of Bombay during the month of January 1879.

ACCOUNTS.
Remittances. Brigadier-Generals.
Transports chartered for expeditions.

APPOINTMENTS.
Captain Larminie's services made available by the Government of India for temporary employment with Bombay Sappers and Miners.
Captain H. F. Smyth's services made available to command No. 5 Garrison Battery, Punjab Frontier Force.
Indian Medical Establishment.
Pension Paymaster. Government of India desire that, should Colonel Disbrowe take furlough, no appointment may be made in his place in anticipation of sanction of Her Majesty's Government.
Probationers, Army Pay Department.
Surveyor General of India.

ARMS AND ACCOUTREMENTS.
Bandsmen of Native infantry regiments.
Native Army. Substitution of brown for buff leather accoutrements for the Native army in India.
New pattern bayonet for the Martini-Henry rifle. Supply of—from England.
Royal Artillery. Issue of sections of common and shrapnel shell for batteries of royal artillery serving in India for instructional purposes.
Rules made under the Indian Arms Act, 1878.

ARMY.
Batteries and regiments proceeding on service to continue to be borne on the establishments of the presidencies from which they have severally been detailed.

BAKERIES.
Mill for the bakery at Kurrachee.

BARRACK DEPARTMENT.
Supplies, Macnamara filters. Covers of—to be secured with hasps and padlock.

BOOKS.
British army schools. Procedure to be observed for the supply of books and periodicals for the army.

BUILDINGS.
Lines 8th Regiment Native Infantry. Erection of bathing places in the —— disallowed.

CAMP EQUIPAGE.
Allowances for repairs of tents, &c., to British and Native regiments.
Army. Purchase of certain tents to replace the number transferred to Bengal with Her Majesty's 68th Foot.

CANTEENS.
See Institutions, Regimental.

CARRIAGE.
Conveyance for the detachment of the 66th Regiment from Colaba to Carnac Bunder; charge on account of—
Doolies. Bourke's muster pattern dooly.
Mules for mountain batteries.

CATTLE FARMS.
Rams received from England for the Hissar Cattle Farm. Charges incurred on account of—by the Commissariat Department.

CLOTHING.
Badges to sergeants employed on the coast defences at Bombay, Aden, and Kurrachee.
British army. Indents for cork-helmets to to discontinued.
Gymnastic instructors. Substitution of woollen jerseys for the red serge shirts now allowed to gymnastic instructors, and the issue of an additional pair of woollen socks.
Mountain batteries. Introduction of Norfolk jacket in lieu of tunics for the Bombay mountain batteries.
Native army. Continuance of the new pattern uniform in use in the 5th Regiment, Native Infantry, for a further period of one year.
Soldiers' families. Issue of woollen or worsted stockings in lieu of socks to the wives and children of soldiers on the passage from India to England.

COLORS.
Indents for new colors for the 17th Regiment, Native Infantry.

COMMANDS.
Divisional and District. Ruling by the Secretary of State permitting Lieutenant-Generals and Major-Generals on promotion under the royal warrant of 13th August 1877 to complete their tour of command.

COMMISSARIAT DEPARTMENT.
Supplies, Bedding. Blankets.
List of issues of extra blankets made in November and December 1878 to the European troops in the Mhow and Northern Divisions.
Mattresses and pillows for the use of invalids in Railway carriages.
Issue of lime-juice to the men of the 16th Native Infantry at Nusseerabad.

COMPENSATION.
For dearness of provisions. Unrevised subordinate and menial establishments in Sindh.

DEFENCES AND FORTIFICATIONS.
Aden. Application for transfer of the powder magazine in the mole battery under Ras Morbut to the Port Fund at Aden for the storage of powder brought by the Mercantile Shipping referred to the Government of India for the opinion of the Defence Committee.
Fort of Asirgarh. Copies of report on the—by Lieutenant-Colonel Dawson, Royal Artillery, and Major Hills, Royal Engineer.
Fort of Purandhar. Major Barton, R.E., a member of the Defence Committee, and Captain Pierson, R.E., the Secretary to that Committee, to visit the—for the purpose of considering on the spot the recent proposals for adding to its defences.

DRILL AND INSTRUCTION.
Officers of Royal Engineers while on furlough in England permitted to go through special course of instruction at the School of Military Engineering at Chatham.

EQUIPMENT.
Artillery: batteries of horse artillery armed with 9-pr. R. M. L. guns. Certain alterations in the equipment tables of—
Batteries of horse and field artillery. Riding school gear for—
Eye-fringes for bullocks of batteries of royal artillery disallowed by the Government of India.
Harness and saddlery. Proposals by the Inspector General of Ordnance in regard to the making of—in two sizes, one for walers and one for country-breds or Arabs.
Heavy field batteries. Certain additions to the equipment tables of—
Issue of Martini-Henry carbine to the horse artillery and field artillery.
tubs to the —for the purpose of washing guns.
Proposal for the reintroduction of line and water carts for batteries of royal artillery.
British cavalry. Addition to the equipment tables of—
Riding school gear for—
British troops: kit bags. Supply of kit-bags to British troops transferred from the ordnance to the clothing department.

ESTABLISHMENTS.
Bombay arsenal. Entertainment of 50 extra lascars in the —— sanctioned as a temporary arrangement.
Commissariat Department. Baroda.
Conservancy lock-hospitals. Government of India disallow an increase in the conservancy establishment of the lock-hospital at Belgaum.
Military Department at Manora.
Executive commissariat office, Bombay. Entertainment of an additional clerk for the—in connection with the duty of supplying disinfectants to the Hyderabad Contingent and the Berar civil hospitals.
Gunnery Instructor, R. A.
Hospital, Deolali. Entertainment of a 2nd class purveyor for the—.
Native cavalry regiments. Reduction in the establishment of—
Office of the Deputy Surgeon General, Indian Medical Department, Poona.
Water and conservancy. For the families of D-2nd Royal Artillery.

EXPEDITIONARY FORCE.
Accounts. Closing of—
Compensation for non-issue of boots, water-bottles, and woollen socks for doolie-bearers of the 9th Bengal Cavalry.
Pay and allowances. Payment made to Surgeon Mackinlay, of the transport *Macedonia*, for the medical charge of the head-quarters of the 13th Bengal Native Infantry during the voyage from Bombay to Aden, to be debited to the Bombay presidency.
Rations; Certain officers of the royal artillery embarked on board the transport *Maraval*. Question in regard to a charge made for liquors by the master of the transport.
Stores, medical. Report of the court of enquiry assembled to investigate as to what officer or department is responsible for packing in the same cases containing medical comforts for the use of the expeditionary force to Malta a poisonous disinfecting fluid, &c.

FUNDS.
Indian Service Family Pension Fund. Increase of 5 per cent. published in G. O. G. I. No. 1001 dated 6th October 1875, is to be paid on donations and subscriptions of Native subscribers to the—
Medical Retiring. Refunds to certain subscribers to the Bombay Medical Retiring Fund seniors to Surgeon-Major Boustead.

FURLOUGH AND LEAVE.
Colonel F. Brine, R.E.

FURLOUGH AND LEAVE—*contd.*

Non-commissioned officers, sappers and miners. Secretary of State sanctions furlough being granted to re-engaged non-commissioned officers of the British military service of exemplary character and prudent habits borne on the rolls of sappers and miners, and that such furlough should count as Indian service for pension.

Warrant officers. Furlough papers to precede the arrival of the unattached list non-commissioned officers on furlough.

GENERAL ORDERS.

Horse Guards. Directions for cooking preserved meat.

GUN CARRIAGES.

Strengthening plates being added to gun carriages fitted with box girder axletree beds.

GUNS.

For Madras. Charges preferred by the G. I. P. Railway Company for altering the wagons for the conveyance of six 12-ton guns from Bombay to Madras, admitted to the debit of the Military Department, Madras.

HONORARY DISTINCTIONS.

Order of the Bath. Certain officers recommended for appointment to the 3rd class of the Order of the Bath.

British India for certain Native officers.

Subadar-Major Moses, 12th Regiment N. I.

Sheik Rahim, 13th Regiment N. I.

HONORS AND SALUTES.

Native Princes and Chiefs. Amended table of salutes to Native Princes and Chiefs of India and to certain Chiefs near Aden.

HORSES.

Remounts. Proposal for the formation of a remount depôt in this presidency.

Purchase of horses for the Government of India.

Stallions.

HOSPITALS.

Furniture. Specimen plan of a portable close stool (commode) for British hospitals for use on the line of march.

INDENTS.

Books, &c., for the library for the military prisoners at Poona.

regimental workshops of the 2nd Battalion, 11th Regiment.

Commissariat supplies. Salt meat.

Stores, clothing. Helmets, &c., for the 3rd Hussars and No. 1 Battery 9th Brigade, Royal Artillery, and hunting spurs for mounted branches of the British army.

Supplementary indent for clothing materials required for making up clothing of two regiments, Bombay Native infantry.

Stores, medical department, for the year 1879-80.

INDIAN TROOP SERVICE.

Movement of troops.

INSPECTIONS.

Native army. Annual inspection reports.

INSTITUTIONS—REGIMENTAL.

Canteens. Ruling by the Government of India as to the measures to be adopted to prevent the accumulation of canteen property at Aden.

LOCK-HOSPITALS.

Nusseerabad. Appointment of the District Superintendent of Police, Ajmere, as an extra member of the lock-hospital Committee at Nusseerabad.

MEDALS.

With North-West Frontier Clasps. For certain men of the 3rd Regiment, Bombay Native Infantry.

MEMORIALS.

Khan Bahadur Eduljee Pestonjee, late Head Clerk of the Executive Commissariat Office, Mhow.

MISCELLANEOUS.

Boat for the use of the lascars at Manora.

OFFICERS.

Return of — to duty.

Government of India enquire whether certain officers employed in the Public Works Department, whom it is proposed to return to military duty can be suitably provided for by the Bombay Government.

Services of Captain J. R. Watson, Officiating Political Assistant, Second Class, placed at the disposal of the Military Department.

OPERATIONS—AFGHANISTAN.

Accounts. Adjustment of the charge preferred by the Great Indian Peninsula Railway Company or the conveyance of the 1st Battalion, 2nd Queen's, from Poona to Mhow.

Account. Advances to Lieutenant Moon, deputed on Special Duty at Sonmiani.

Appointments. Field Force under the Command of Lieutenant-General D. M. Stewart, C.B.

Lieutenant Dean Pitt (Aide-de-Camp to His Excellency the Governor) as Orderly Officer to Brigadier General Phayre, C.B., Commanding Bombay Brigade, Reserve Division.

Lieutenant Colonel Hogg, Deputy Quarter-Master-General, appointed Superintendent of the Transport Train, Brigade Reserve Division.

Transport Train. Lieutenant Forster, 2-15th Foot, ordered to proceed to Sukkur for duty with the transport train.

Arms and ammunition. Supply of—from England.

Arms. Breech-loading revolvers, Adam's—.

Army. Government of India state that no more cavalry will, for the present, be required from the Bombay presidency for duty in Sind.

Camels. Contract for the supply of—

presented by His Highness Meer Ali Murad Khan, of Khairpur.

Carts. Maltese.

Clothing, ankle boots.

jerseys.

stores. Provisions, &c.

warm.

Commissariat Department; Supplies. Water-proof sheets.

Subordinates for stations in Bolan Pass.

Establishment. Leechman, Commissariat Department, Bombay Brigade.

Horse-shoes and nails.

OPERATIONS—AFGHANISTAN—*contd.*
Line of railway from Sukkur to Dadur not to be constructed.
Medical subordinates.
Mules from Bushire.
Native army. Government of India sanction policemen who may enlist into Native regiments, being permitted to count two-thirds of their police service towards military pension.
Officers for the transport train, Bombay Brigade, Reserve Division.
Passage and transport. Chargers of officers of the transport train.
Families of officers killed in action.
Grant of free passages to their homes to the families of Native regiments ordered on service.
Pay and Allowances. Captain Dean-Pitt, Orderly Officer to Brigadier-General Phayre, C.B., Commanding Bombay Brigade, Reserve Division.
Horse allowance to the officers attached to the siege-train proceeding on service.
Office allowance to Captain M. H. Nicholson, Brigade-Major, 1st Infantry Brigade at Quetta.
Photographic school. Instructor, &c.
Provisions. Compressed vegetables.
&c., for the Bombay Brigade, Lower Indus Reserve Division.
Rations, Native, Bombay Brigade, Lower Indus Division.
Road. Two officers of the Public Works Department deputed for the special charge of the efficient maintenance of the road from Sukkur to Jacobabad.
Saleetahs for ammunition, Madras troops.
Stores. All stores and supplies required from England for the purpose of the Afghan Expedition to be obtained through the Government of India.
Ordnance 6·3-inch howitzers.
Transport arrangements.
Veterinary Surgeon, I Battery 1st Brigade, Royal Artillery.
ORDNANCE DEPARTMENT.
Factories. Machinery for the third group of incorporating mills for the gunpowder factory at Kirkee.
Reorganization. Question as to the abolition of the arsenal at Belgaum and the magazine at Neemuch.
PASSAGE AND TRANSPORT.
Chaplains. Government of India's orders in respect to the grant of free passages to Chaplains and their families in troopships.
Escorts, Native insane soldiers. Ruling by the Government of India in regard to the provision of passage to—
Families of officers proceeded on field service. Government of India sanction the provision of passages to such relations of an officer as may be *bonâ fide* member of his family and dependent on him for a home.
Families of soldiers. Grant of free conveyance by rail to port of embarkation and back to the husband or any other person who may be selected by the local military authorities to proceed in charge of a woman of bad character ordered to be removed to England.
Officers. Application by Colonel D. Thomson, R.E., for passage to England for himself and family negatived.
Passage to England to Lieutenant J. B. H. Reid, 2nd Battalion 1st Foot, who has been placed on temporary half pay.
Warrant officers. Government of India sanction the extension to warrant officers of the concession specially allowed to officers below the rank of field officer of free passage in a troopship for themselves and their families when accommodation is available.
Question as to whether pensioned warrant officers are to be allowed free passages by sea.
PAY AND ALLOWANCES.
British army. Lance ranks sanctioned by section 7, para. 69 of the Queen's Regulations and orders for the army, are entitled to the extra pay under para. 2 of G. O. G. I. No 669, dated 19th July 1878.
Grant of gratuities to farriers of British Cavalry or the royal artillery for training men as shoesmiths.
Divisional Commands. Sir J. Brind.
Insane British soldiers. Rules regarding the mode of drawing and adjusting the pay of insane soldiers which are in force in Madras and Bengal to be carried out in the Bombay presidency.
Officers, artillery, retiring under the Warrant of 6th September 1878. Question as to whether the ordinary pension, extra pension and difference between aggregate of these pensions and Indian pay and allowances shall be admitted to—up to and for the date of receipt at the station where they are serving of the *Indian Gazette* in which their names appear.
Engineers. Government of India state that the ruling relative to the pay and allowances admissible to royal artillery officers now retiring under the Royal Warrant of 6th September 1878, until gazetted in India, may be held equally applicable, on the same conditions, to officers of Royal Engineers.
General J. Brind.
Officers. Majors of Artillery.
Supernumarary—to the service Companies in India.
Public followers. Exemption from attachment of the pay of public followers, such as syces and grasscutters, as persons to whom the Native Articles of War apply.
Subsistence allowance; soldiers' families. Sanction of Government for the grant of subsistence allowance to soldiers' families, dispensed with.
Travelling allowance. Pensioned Conductors.
PENSIONS.
Good service. Colonel Sir W. L. Merewether, K.C.S.I., C.B.
PENSIONS AND GRATUITIES.
Armourer Lalla Lall Chund, of 19th Regiment Native Infantry, recommended to the Government of India for an invalid pension.
Artificers, Ordnance Department
Joomah Kalloo, late under maistry-smith, Neemuch depôt.
Form of pension circular.
Honorary Captain Christian.
Native army.
Grant of the higher rates of pension to certain supernumerary Native officers.
Peons, Commissariat Department.

PENSIONS AND GRATUITIES—*contd.*

Soldiers' widows. Mrs. Grogan *alias* Freeman, widow of the late Gunner Dennies Grogan, disallowed arrears of pension.

Warrant officers.

Government of India decline to make a special application to the Secretary of State for an increased pension on behalf of Honorary Captain Bunyer, Bombay Ordnance Department.

PETITIONS.

Bhugwan Deen Misser, late Jemadar, 1st Jacob's Rifles.

Jumboo Lingam, late head clerk, Cattle Farm, Aligaum.

Shewcharan Sookal, pensioned subadar of the 9th Regiment Native Infantry.

PROMOTION AND RANK.

Conductor Bennett recommended for promotion to the grade of Deputy Assistant Commissary.

Despatch from the Secretary of State regarding the promotion to the substantive rank of major of officers holding unattached commissions.

PROMOTIONS.

Officers. Lieutenant-Colonel Arthur Phelps, of the Bombay Infantry.

PUBLICATIONS.

Army Lists. Application by the Assistant Quarter-Master-General, Poona Division, for the supply of the Bengal Army List, disallowed.

Field Exercise and Evolutions of 1877 translated into Hindustani, in the Urdu and Hindi characters.

Instructions for fitting valise equipment, and army circulars and general orders.

Postal Directory.

RATIONS.

Claim to free rations preferred on behalf of detachments of the 2nd Sind Horse and 29th Regiment, Native Infantry, recently employed on escort duty beyond the Bolan Pass, disallowed by the Government of India.

RETIREMENTS.

G. O. G. I. No. 1, dated 1st January 1879, regarding the terms on which officers of the staff corps and cavalry and infantry of the Indian army will be permitted to retire during the year 1879.

Number of retirements unallotted under G. O. No. 1 of 1878.

Officers, artillery and engineers.

Indian staff corps and local service. Retirements of—subsequent to the 31st December 1878 to be submitted for the approval of Her Majesty.

Ruling by the Secretary of State regarding the retirement of officers pronounced unfit from causes resulting from injuries sustained by them.

Thirty-five retirements under G. O. G. I. No. 1, dated 1st January 1879, which remained unallotted on the 31st December last, held available for officers of three presidencies up to 31st March next.

RETURNS.

Army. Form of sanitary sheet prepared with a view of supplying information as to the sanitary condition of the lines of Native troops.

Bombay Military Fund. Return of losses arising from Military Fund claims not being treated as preferential charges.

Embarkation. Secretary of State desires that the returns of officers, &c., sent to England should show whether the individuals embarked were granted passage allowance or were proceeding as Government passengers.

War Office Forms.

SCHOOLS.

British army. Issues of certain Hindustani books to schools of British corps in which Hindustani classes are established.

SERVICE.

British army. Retention in India of short service soldiers until they have completed their full term of six years with the colors.

Officers. Colonel G. S. Morris, Bombay Infantry, permitted to reckon the period passed by him in the appointment of Deputy Assistant Quarter-Master-General in Egypt as service for furlough.

Service of Captain F. W. Joseph, Staff Corps in China, allowed to count for furlough.

Officers, Royal Artillery. Captain W. J. Heavyside and Lieutenant-Colonel B. H. Pottinger elect for local service.

Lieut.-Colonel B. H. Pottinger point out that he has not yet elected.

Secretary of State states that he is unable to concur with the Government of India that Major Candy committed himself to general service.

Secretary of State desires to be informed of Major Pottinger's election either for general or local service as soon as it is made.

Warrant officers promoted to that grade after 31st December 1875 will be allowed to count their previous service for furlough under Rule 6 of the Regulations of 1875.

STAFF CORPS.

Form of certificate of the commanding officer granted to candidates for the staff corps in the Bengal presidency to be adopted in the Bombay presidency.

Officers. Captain E. P. Ommaney, half-pay list, permitted by the Secretary of State to return to duty in India.

Officers under the rank of field officers placed on the half-pay list on medical grounds to be allowed to rejoin the effective list if the Medical Board at the India Office report favorably of their health.

Probationers. Government of India rule that the grant of an extension of the term during which direct probationers are required to pass the lingual tests may be left to the discretion of the local Commander-in-Chief, those cases only in which an extension of the whole term of three years is asked being submitted for the orders of Government.

Sub-Lieutenant E. W. C. Goate, 81st Foot. Services of—dispensed with.

The Secretary of State desires that the nomination of officers as probationers for the Indian staff corps may be reported at once to the India Office.

STANDING ORDERS.

Correspondence. Ruling by the Government of India that information received by officers in their official capacity, whether from official sources or otherwise, which is not from its nature obviously intended to be made public, cannot be treated as if it were at their personal disposal.

STORES.

Coal for the gunpowder factory at Kirkee. Substitution of Hartley coal for Anthracite coal in Bombay Ordnance indent No. 59 of 1877.

STORES—*contd.*

Commissariat Department. Explanation furnished to the Government of India as to why requirements of civil hospitals for wines and spirits were included in the Commissariat Department indent for 1879-80.

Disinfectants for the Hyderabad Contingent and Berar civil hospitals—(*See* Establishments).

Local purchase of. Government of India return indents, requisitions, and estimates for books, &c., required for the Bombay army, with reference to paragraph 2 of Military Department Resolution No. 47E. of 1879.

Ruling by the Government of India in regard to the mode of obtaining supply of books and other stores from Europe or America independently of the India Office.

Ordnance. Ammunition boxes. Government of India furnished with the opinion of this Government on the question of the manufacture in the Small-arm Ammunition factory, Dum-Dum, of ammunition boxes for all India.

Defective quality of friction tubes supplied to Her Majesty's ship *Undaunted* and two batteries of royal artillery.

Factories Jack, lifting, for the Gunpowder factory, Kirkee.

Issue of scales and weights to batteries of Royal Artillery.

Local manufacture and supply. Patterns of certain ordnance stores.

Revised equipment table for R. M. L. siege trains.

Spring locks to be fitted to ammunition boxes of field artillery in addition to the hasp.

Supply of oil-bottles to regiments of Native cavalry armed with Snider carbines.

6 3 wrought-iron muzzle-loading rifled howitzers.

TELEGRAMS.

Government of India sanction, as a special case, the admission of the charge on account of a telegram sent by the Officer Commanding 1-2nd Queen's Royal Regiment to His Royal Highness the Field Marshal Commanding-in-Chief, and invite attention to the necessity for the issue of such orders as will prevent recurrence of a practice which was condemned in 1878.

WATER-SUPPLY.

Jask. Sinking of a well near the lines of the detachment of the marine battalion at—

Kurrachee—Native infantry regiment quartered in the FitzClarence Lines.

Statement showing the subjects on which references were made to the Government of India by the Government of the Punjab during the month of January 1879.

Abbottabad. Allowance for station staff hospital assistant.

Ammunition, Martini-Henry. Issue to volunteers.

Breweries. Proper inspection of—

Carriage of supplies by bunniahs.

Center, Dr. Chemical examination—soil, Rawal Pindi.

Compensation. Dearness of forage—2 chargers.

Compensation in lieu of trousers to the Queen's Own Corps of Guides.

Clothing compensation, No. 1 Mountain Battery.

Dalhousie Cantonment. Rights of cultivators.

Enfield rifles, Derajat Police.

Escort for Major Biddulph on special duty in Gilgit.

Expenditure beyond authorized limits. Rules to be adopted.

Faridkot Raja. Norfolk Trotter stallion sanctioned.

Form of inspection return for Native mountain batteries.

Free rations, Biluchistan. Conditions.

Gulab Din, sepoy, 1st Sikh Infantry. Deserter.

Hazara border. Disturbances.

Insane soldiers—Treatment.

Kelly, Surgeon-Major J., 1st Punjab Infantry. Furlough 2 years.

Lahore Fort. Overhanging boughs being cut.

Lawrence Asylum, Sanawar. Industrial training. Extension.

Lock-hospital building, Mooltan. Sale sanctioned.

Ludhiana fever. Information about—asked for.

Magna, late sepoy, 2nd Sikh Infantry. Pension for heir sanctioned.

Map. Adam Khel country.

of Quetta.

Medal, Abyssinia. Report of loss.

Murree hills. Boundaries of the gullies.

Nikka, Singh. Daffadar, 5th Punjab Cavalry—Pension sanctioned.

Peshawar Fort. Precautions for security.

Punjab Frontier Force.—Corps of Guides Roll of 5 Afridi deserters.

Promotion Rolls, 3rd Punjab Infantry.

Promotion Rolls 3rd Punjab Cavalry.

No. 4 (Hazara) Mountain Battery—2 drivers. Transfer to Pension Establishment.

Uncut material for clothing.

Alteration of pâls sanctioned.

4th Punjab Cavalry. Officiating allowances.

1st Sikh Infantry. Invalids 38—Reported upon.

2nd Ditto. Alteration of G. G. O.

3rd Ditto. Appointment of Lieutenent Barrett, 44th Foot.

3rd Ditto. Gratuity. Families of murdered sepoys.

4th Ditto. Tunics issue.

5th Goorkhas. Promotion rolls.

Rice, Major H. C. P.—Wound gratuity.

Road from the Bara Bridge.

Sanders, Surgeon E., 2nd Sikh Infantry—2 years' furlough.

Smith, Dr. Medical charge, Sanawar Asylum.

Swords—Kohat Police and frontier militia.

Volunteers, 1st Punjab Volunteer rifle corps—Staff pay—Sergeant Instructors.

Ditto ditto Indent for 20 targets.

2nd Ditto Accounts.

Proceedings of the Government of the Punjab in the Military Department [Kabul Expedition] for the month of January 1879.

Advances for recruiting purposes.
Bannu troops to be recalled.
Blankets sanctioned on payment for Native infantry regiments.
Daly, Mr. W. W., applying for police appointment on North-Western Frontier.
Establishments for collection of supplies in the Peshawar Division.
Graves, Miss. Free passage by troopship sanctioned.
Kohat. Command of the troops.
Madho, Constable, transferred to 3rd Sikh Infantry as a sepoy.
Mahsud Waziris making their way to Tank Zam outpost.
Militia, Southern Derajat. Command—staff pay.
Movements of troops to quell disturbance at Tank Zam post.
Girni. Attack, killed wounded and captured.
Officers' families. Free passage by troopship.
ordered to return to duty.
Outposts. Weekly return of garrisons to be submitted.
Outpost of Girni marauders attacked, killed, wounded and captured.
Tank Zam { Mahsud Waziris—Disturbance.
Movements of troops, &c.
Raid on British territory—Firing of the town of Tank, killed, &c.
Policemen. Terms on which they may enlist into line regiments.
Powell, C. F., Captain, died of wounds received in action, 13th December 1878.
Punjab Frontier Force. Mountain batteries. Lascars sanctioned for guns, &c., deposited in Kohat Fort.
Proportion of drivers sanctioned.
No. 1 Mountain Battery. Increase to driver company necessary.
No. 5 Garrison Battery. Temporary establishment sanctioned.
Cavalry regiments. Relaxation in rules for payment of horse allowance to recruits not considered necessary.
2nd Punjab Cavalry, requiring an advance of Rs. 15,000.
4th Punjab Cavalry. Ressaldar Nasir Khan and Duffadar Sikandar Beg to join Captain Wylie at Dadur, recalled.
4th Punjab Cavalry. Officiating appointment of commandant, Major T. O. Underwood.
Miscellaneous.
Officers' families. Free passage by troopship sanctioned.
Recruiting. Progress made.
Punjab Chiefs' Contingent. Enfield rifles and ammunition.
Medical officer for station of Dera Ghazi Khan.
Surgeon J. Hunter appointed, arrived.
Separate command.
Cane, R.E., Major. Services applied for—
Carbines. Four hundred and fifty smooth-bore—and ammunition required for Patiala, Kapurthulla and Farridkot contingents.
Deane, J. R., Honorary Surgeon-Major, recommended for medical appointment.
Designation. Medical Officer, muzzle-loading weapon.
Faridkot contingent. Carbines and ammunition.
Gulab Sing, Captain, Aide-de-Camp to General Watson, C.B., V.C.
Gray, R., Surgeon-Major. Resigns appointment.
Kapurthalla's Contingent. Two six-pounders, smooth-bore, condemned and to be replaced.
Carbines and ammunition.
To proceed to Bannu.
Movements of the Contingents. Musketry instruction.
Officers. Appointments and staff salaries sanctioned.
Patiala Contingent. Carbines and ammunition.
Pearson, A. J., Captain. Services applied for.
Raid on British territory—firing of Tank, killed, &c.—
by Mahsuds on Tank border.
Attack on Dera Ismail Khan border.
Railway. Sindh, Punjab and Delhi.
not required from Sukkur to Daddar.
Road. Kohat-Thal. Construction, not repairs. Report of progress to be furnished.
Construction through Khyber Pass. Labor.
Roads under Military Works Branch excepted from decision that orders be sent direct to this Government.
Route. Dera-Bugti, Bandowala, Rajanpur. Shelter for supplies, &c.
Kusmore—will not be issued.
Thal-Chotiali to Quetta.
Supplies. Collections establishment—sanctioned, Peshawar Division.
Sym, J. M., Major, to be Officiating Assistant Adjutant General, Punjab Frontier Force.
Tank border. Raid by Muhsud Waziris.
Trans-Indus territory. Protection.
Tribes on Hazara Frontier. Conduct.
Tube wells available for use on Quetta route.

APPENDIX XVIII.

Extracts from the Report of Lord Northbrook's Committee of 1870 and from the evidence given before the Committee.

Reference to 1st and 2nd reports.

In our first and second reports we have described the manner in which we think that financial control can best be exercised over the administration of the army; we have given our opinion upon the supply and distribution of munitions of war, and upon some other questions connected with the formation of the Department of Control; and we have said that in our judgment it is necessary that the Secretary of State for War should be able to command more assistance in Parliament than he now possesses.

Extension of inquiry to the Horse Guards.

We have since received Mr. Cardwell's instructions to extend our inquiry to the Horse Guards. His Royal Highness the Field-Marshal Commanding-in-Chief, with whose entire concurrence the field of our functions has been thus enlarged, has freely and fully put us in possession of his opinions on the subject of the transaction of business at the Horse Guards, over which Department he has presided since the year 1856. We have also examined the Military Secretary, the Adjutant-General, the Quartermaster-General, the Deputy Adjutants-General of Royal Artillery and Royal Engineers, and the Inspector-General of Recruiting, besides other witnesses of high authority on different parts of our inquiry. The minutes of evidence, together with a return which shows the nature and distribution of the business transacted at the Horse Guards, are appended to this report.

Constitutional questions not touched.

In order to prevent any possible misapprehension, we wish it to be understood that we have considered the organization of the Departments of the War Office and Horse Guards entirely from a practical point of view; and that our inquiry does not extend to any of the constitutional questions which, among others, were investigated and reported upon in 1860 by the Select Committee of the House of Commons upon military organization, of which Sir James Graham was the Chairman.*

Recommendations limited to main principles of organization.

Being now in possession of sufficient information with respect to the manner in which the whole administration of the army is conducted, those of us who signed the first report having since had the advantage of the assistance of Lieutenant-General Sir Edward Lugard, who is well acquainted with every part of that administration; and feeling that, if the main principles of organization are determined, many matters of detail may be left for future settlement—such matters indeed being only capable of satisfactory adjustment after the main principles have been decided,—we think that we shall best meet Mr. Cardwell's wishes by embodying in a third report, without further delay, the general conclusions at which we have arrived.

Annual cost of administrative staff of the Army.

The extent of the departments which have come under our review will be seen from the following statement of the number and salaries of the persons (civilian and military) who are now engaged in the administration of the army:—

There are thus employed—

Superior Officers	82
Clerks	673
Total	755

at an annual cost of 249,079*l.*

Comparison with that of other armies.

We have, from the best information at our command, compared those numbers with the numbers engaged upon similar duties in other countries; and the result proves that a much larger administrative staff is employed in this country, in comparison with the strength of our regular and reserve forces, than in any of the principal nations of Europe.

Reasons for larger numbers in England.

It will naturally be asked why the numbers employed in England are so much larger than those employed by continental powers; and the answer is to be found in the fact that the whole military administration of this country has been organized upon a system of want of trust, which has created double establishments for the transaction of the same business. Although the different offices which once were concerned with the administration of the army are now placed under one responsible Minister,† the tradition remains; and both within the walls of the War Office itself, and more especially between the War Office and the Horse Guards, the habit is still to prefer a system of unnecessary check, double labour, and divided responsibility, to one of well-defined responsibility, simplicity, and reasonable confidece.

Effects of present system unsatisfactory.

We are satisfied that the effect of the present system has been unsatisfactory, whether regarded from an economical or from an administrative point of view; and the Report of the Military Organization Committee warrants us in assuming that no sound system of administration can be framed if it be not established upon the following principles:—

All departments of army administration should be subordinate to the Secretary of State.

1st.—That the Secretary of State is the Minister responsible both for the efficiency of the army and for its economical administration, and that all departments of army administration are subordinate and re-

* The expression "the Military Organization Committee" will be used in subsequent references to the Report of this Committee.

† *Order in Council of August 11th, 1854. Note to Schedule of Establishment.*

"The Department of War being established upon the alleged necessity of combining and amalgamating under one Secretary of State all the divisions of the present separate military superintendence and detail hitherto carried on in distinct offices."—*Appendix to Report of Select Committee on Military Organization, p. 533.*

sponsible to him. This principle has recently been re-asserted by Mr. Cardwell in the House of Commons.*

2nd.—That confidence should be placed in, and responsibility fixed upon, the chiefs of the principal departments. If the Secretary of State is burdened with the details of current business, it is difficult for him, even in time of peace, to deal satisfactorily with the large questions which constantly arise; and in time of war, it would be impossible for him to supervise the operations for which he would be responsible. It is necessary, therefore, that much of the daily work of army administration should be done upon the responsibility of officers under him. The same principle applies to the business of chiefs of departments—more responsibility should be placed upon subordinate officers in many branches of army administration.

Responsibility should be fixed upon the chiefs of the principal departments.

We understand that, as soon as the necessary arrangements can be made, the whole administration of the army will be conducted under one roof, and our recommendations have throughout been based upon this assumption. The greater facility which will thus be afforded for the transaction of business is self-evident, and is freely admitted by His Royal Highness the Duke of Cambridge, the Adjutant-General; the Quartermaster-General, and the Military Secretary. The Military Organization Committee expressed their views upon this subject in the following forcible language:—

Army departments should be under one roof. Forester, 115. Paulet, 210. Grant, 616. Duke of Cambridge, 1276.

"It would be well if the War Office and the Horse Guards could be brought under the same roof. General Pe earnestly recommends this union. He says that it would be the greatest possible convenience and the greatest advantage to the service if there were one building which could contain both offices so immediately connected. Though the distance which now divides them be small, yet the separation engenders the belief that they are two distinct departments. Public opinion confirms the error, and necessarily leads to divided action, if not to antagonism on the part of military me against the supremacy of the civil power."

Report, p. 21.

With these preliminary remarks we shall proceed to describe, with such explanations as appear to be required, the manner in which we suggest that the business of the army should be distributed and superintended.

Distribution of business suggested.

The business of the army naturally divides itself into three principal departments,—

I. Military.
II. Control (or Supply).
III. Financial.

These departments, over which the Secretary of State for War exercises a supreme authority, and which, assisted by one Under Secretary, he represents in Parliament, have been formerly represented in Parliament by the Master-General of the Ordnance, the Clerk of the Ordnance, the Surveyor General of the Ordnance, the Secretary to the Master General, the Secretary to the Treasury, the Secretary at War, the Home Secretary, and the Secretary of State for War and the Colonies.† The Parliamentary representation of the navy is largely in excess of that of the army as there are four officers connected with the administration of the navy now in Parliament, and as the Members of the Board of Admiralty may be Members of the House of Commons. We have no hesitation, therefore, in repeating the opinion which we have expressed in our First Report, that the present arrangements do not give to the Secretary of State sufficient Parliamentary assistance. We therefore propose that, in addition to the Parliamentary Under Secretary of State, who should give general assistance to the Secretary of State and represent the War Office in whichever House of Parliament the Secretary of State may not happen to sit, the chiefs of the Control and Financial Departments should also be eligible for election as Members of Parliament.

Secretary of State requires more assistance in Parliament.

Looking to the magnitude of the expenditure and the importance of the business connected with the supplies of the army, it cannot fail to be a great advantage that the Control Department should be represented in Parliament; but it must not be forgotten that the duty of administering the supplies of the army requires special qualifications, and the first object should be to appoint to the office a person possessing those qualifications. It would, therefore, we think, be unfortunate if the appointment came to be considered as one which must, as a matter of course, be conferred upon a Member of Parliament. It would be sufficient, in our opinion, that the office should be classed with those of the Naval Members of the Board of Admiralty, who form part of the political administration of the day, are eligible to sit in the House of Commons, but need not necessarily always be Members of Parliament. This was the position formerly occupied by the Master General of the Ordnance; both Sir George Murray and Sir Hussey Vivian filled that office when in and out of the House of Commons. No difficulty is likely to be experienced in the selection of a Member of the House of Commons for the office of Financial Secretary.

Chief of the Control Department should be a member of the political administration of the day.

We now proceed to explain our proposals with respect to the organization of the three departments, and to give the principal reasons which have induced us to recommend some important alterations of existing arrangements.

I.

The First, or Military, Department, under the direction of the Officer Commanding-in-Chief for the time being, embraces the business which is now transacted at the Horse Guards, relating to the discipline of the forces, appointments, promotions, and the military c

Military Department to be under the Officer Commanding-in-Chief.

* Hansard's Debates, vol. 194, p. 203, 3rd Series.

† The Ordnance Officers represented the Artillery, Engineers, and all questions of armaments, military stores, and w the Secretary of the Treasury represented the Commissariat, the Secretary at War the Finance of the Army; the Home Secr the Militia and Yeomanry, and the employment of the Army at home; the Secretary of State for War and the Colonie employment of the Army abroad.

mand in Great Britain. It has been pointed out by the Military Organization Committee that the Officer Commanding-in-Chief should not be connected with the political administration of the day, so that

"the army may be enabled to feel assured that the patronage of the army, as regards first commissions and the ordinary promotions and appointments, will not be distributed with a view to political objects or the necessities of successive governments; nor will the discipline of the army, as daily administered, vary in its character with each change in the civil department."

Report, p. 20.

The arrangement under which, as described by the Military Organization Committee, the conduct of this business is entrusted to the Officer Commanding-in-Chief, subject to the general responsibility of the Secretary of State, appears to us, regarded from a practical point of view, to be advantageous to the public service, and it is in accordance with the opinion which we have already expressed, that much of the daily work of army administration should be done upon the responsibility of officers under the Secretary of State. In the changes we propose, our object has been to bring under the Military Department all the business which properly belongs to the organization, discipline, and distribution of the forces; and to collect under the Officer Commanding-in-Chief all the materials which are necessary to enable him to give to the Secretary of State the most comprehensive military advice.

Officer Commanding-in-Chief should be the Secretary of State's Military Adviser.

It appears to us to be of great importance, with a view to the proper transaction of business, that a Secretary of State, usually a civilian, and liable to frequent removal, should have at his command the advice and assistance of a permanent military officer of high rank and extensive experience.* And while, as we shall endeavour to show in the course of this Report, it is unnecessary that the opinion of the Principal Military Adviser of the Secretary of State should be asked or given on questions of detail, or such as are dealt with under regulations, he should always be consulted upon matters of importance. In short, while the other departments of army administration should be held responsible for the conduct of the business relating to supply and finance, there should be the freest interchange of opinion between them and the Military Department.

Confusion of authority and unnecessary work at the Horse Guards.

The return of distribution of work in the Horse Guards, and the evidence which we have taken on the subject, show that there is some confusion of authority, and that unnecessary work is done there; both because the administration of the army has not been clearly distributed, and because business which might with advantage be transacted locally has been brought to head-quarters. In saying this, we desire to be understood as not intending in any way to depreciate the zeal and ability of those who have had the conduct of the business transacted at the Horse Guards.

Chief defects at the Horse Guards.

The following are the chief defects which have come under our notice:—

No general registry of letters.

1st.—There is no general registry of letters received, or of business transacted. Consequently the different divisions of the Horse Guards correspond one with the other,—are obliged to interchange copies of letters and documents,—and a large correspondence passes between the Horse Guards and the War Office.

Unnecessary correspondence relating to supplies.

2nd.—Business of minute detail relating to requisitions for supplies, instead of going straight from those who require the supplies to those who can make the issue, passes through various channels to the Horse Guards—from the Horse Guards to the War Office—and from the War Office to the department which has to make the issue, thereby occasioning a large amount of unnecessary work.

Too much detail business.

3rd.—Too much of the detail business of the army comes to the Horse Guards.

Distribution of business not clearly defined.

4th.—The distribution of business between the Adjutant-General, the Quartermaster-General, and the Military Secretary is not clearly defined.

Defects capable of easy remedy.

We are satisfied, and our opinion is confirmed by the evidence of His Royal Highness the Field-Marshal Commanding-in-Chief, that most of these defects are capable of easy remedy; and since the commencement of our inquiry steps have been taken, by Mr. Cardwell's directions, for the purpose of remedying them.

A common Registry for Military Departments to be established.
Duke of Cambridge, 1280.

A registry is to be established in the Horse Guards, which will form part of the War Office registry. When this plan, to which His Royal Highness the Field-Marshal Commanding-in-Chief entertains no objection, has been carried into effect, all correspondence between the several divisions of the Horse Guards, and between the Horse Guards and the War Office, will cease, and a very great reduction will be made in the business of both offices. No improvement, indeed, short of bringing all the departments under one roof, will do more to economize labour, and to consolidate the transaction of business.

Requisitions for supplies will not pass through the Horse Guards.

It has been arranged that no requisitions for supplies shall hereafter be passed through the Horse Guards to the War Office. The chief of the Control Department is responsible to the Secretary of State for the proper supply of every description of equipment to the army. Supplies should, for the most part, be issued on requisitions from officers in command to the local Control Officers who can at once order the issue, and no advantage can ensue from an indirect and circuitous channel of requisition being adopted. No doubt, the general efficiency of the troops depends as much upon their being properly fed, clothed, armed, and equipped, as upon their being well drilled and ably commanded in the field; and it is the duty of officers in command to satisfy themselves that

* "In the play of parties, and by force of the constitutional action of Parliamentary Government, the Secretary of State for War must frequently be changed, and be often not a military man. The permanent staff of the department ought to be regulated with a view to this necessity."—*Military Organization Committee*, 1860, p. 18.

nothing essential to the efficiency of the troops under their command is wanting. The monthly returns from the troops are sufficient to inform the Officer Commanding-in-Chief that no neglect has occurred; but if cases of special urgency should occur in which supplies are either unduly delayed or improperly furnished, special reports should be made to him, so that he may be able at once to bring any such cases to the notice of the Secretary of State.

Reduction of correspondence relating to supplies.

This arrangement will relieve the Adjutant-General, the Deputy Adjutants-General of Royal Artillery and Royal Engineers, and the Quartermaster-General, from all business relating to the supplies of arms, ammunition, clothing, camp equipage, barrack stores, &c. We need only refer, in support of our opinion upon this subject, to the evidence given by His Royal Highness the Duke of Cambridge. Lieutenant-General Sir Hope Grant, Lieutenant-General Lord William Paulet, Major-General Gambier, Sir W. Power, Mr. Drake, Major-General Balfour, Mr. Ramsay, and Major-General Sir Henry Storks, from which our conclusions have been drawn, and among whom there is little substantial difference of opinion.

Duke of Cambridge, 1287.
Grant, 597.
Paulet, 156.
Gambier, 266.

Double position of the Officer Commanding-in-Chief.

The cause of the great amount of business of detail which is now transacted at the Horse Guards is, that His Royal Highness the Duke of Cambridge (as he has fully explained in his evidence) occupies a "double position at home," inasmuch as he "commands the troops at home as well as being the Commander-in-Chief of the Army." His Royal Highness might have added that, until within the last few weeks, he also occupied the position of General Officer in Command of the London District; but this anomaly will cease with the appointment of a General Officer to command that district, and therefore requires no further notice. We have no wish to diminish the power of general supervision over officers in command of districts, which is exercised by the Officer Commanding-in-Chief; but we think that, without in any way diminishing his proper authority, a gradual assimilation of the home practice towards that of foreign stations would relieve the pressure of detail business, and be an advantage to the general efficiency of the service.

Duke of Cambridge, 1302.

Evils of over-centralization.

The tendency which exists in the administration of the army, both in the War Office and at the Horse Guards, to too great centralization in matters of detail, is very natural, and is not confined to this country. In a remarkable essay on "responsibility in times of war," recently published, the Archduke Albrecht, Field-Marshal Commanding-in-Chief of the Austro-Hungarian Forces, ably combats this tendency, and lays down, as fundamental principles of army administration, that there should be—

"*1st.*—A strictly-organized and sharply-defined circle of action for each one in his own sphere; and to this end there must be—

"*2nd.*—Prevention of meddling by a superior authority with the sphere of action of his subordinates; for instance, laying hands upon the business, or reserving to himself the decisions, which are their affair, not his. Above all things must be impressed upon heads of departments the duty of not only exercising this restraint upon themselves, but also of keeping careful watch over their own deputies, who are generally the prime movers in such encroachments."

These principles are in complete accord with the opinions which we entertain upon this subject.

We have not considered it to be within our province to suggest precise rules for the purpose of carrying out this part of our recommendations. Those rules should be carefully considered, and embodied in the next issue of the Queen's Regulations to the Army.

Queen's Regulations to the Army should be altered.

Proposed distribution of business in the Military Department.

We have next to consider the manner in which the business of the different divisions of the Military Department should be arranged.

Adjutant-General's Division.

The Adjutant-General's division now comprises the business relating to the discipline, interior economy, recruiting, and discharge of the army; we have already suggested that it should be relieved from all business relating to supplies, and we have to propose a very considerable addition to its duties.

Reserve forces should be under the Military Department;

We understand that it has been decided that the discipline and organization of the reserve forces will in future be dealt with in the Military Department. The importance of this change is very great, for, while the number of the regular forces in Great Britain and Ireland in the present year is less than 100,000, the reserve forces, towards which Parliament contributes a large sum, amount to no less than 300,000, with which the Officer Commanding-in-Chief has no official connexion. It appears to be absolutely necessary to establish such a connexion, in order that all the various forces at the disposal of the Crown for the defence of the country may be consolidated and rendered promptly available for united action.

and in Adjutant General's division.

Steps are being taken to place the reserve forces, when they are assembled for training or exercise under the Generals in Command of Districts for purposes of inspection and command; this would naturally bring such questions as may arise respecting their discipline and organization to be dealt with in connexion with cognate questions as to the discipline and organization of the regular forces, and in the same division in which such questions are treated. It will be seen from the evidence of the Duke of Cambridge that His Royal Highness proposes this arrangement.

Duke of Cambridge, 1328.

Decrease in business of the Quarter Master General's Department.

We found in the course of our inquiry that the duties of the Quartermaster-General had been greatly decreased in consequence of the establishment of the system of control, under which the Quartermaster-General's Department is relieved from certain duties and responsibilities connected with stores and transport. This is frankly admitted by the Quartermaster-

General of the Army, Lieutenant-General Sir Hope Grant; and the reasons are explained shortly and clearly by Mr. Drake, the officer who, under the direction of Lord Strathnairn, introduced the control system in Ireland with perfect success. Mr. Drake shows that while the new system has concentrated responsibility and diminished correspondence, a General Officer in command will have "fuller and more accurate information" as to stores than he had before.

Grant, 614, 615.
Drake, 587, 508, 510, 511, 512, 521.

It is obvious that a considerable reduction both in the local staff of the Quartermaster-General's Department and in the establishment of the Quartermaster-General's Division of the Military Department, must follow from this simplification of business and concentration of responsibility.

That portion of the business of transport which relates to the provision of passages or the grant of allowances in lieu, and to travelling expenses, is at present distributed among many different branches of the Horse Guards and War Office. Delay and conflicting decisions are the almost necessary consequence. It also appears from the evidence that the responsibility of controlling the expenditure for the land transport of troops, is not so clearly defined as it should be. By an arrangement made in 1856, Routes sanctioning the issue of travelling expenses, are issued in blank to the Quartermaster-General; but that officer keeps no account of the expenditure as it runs on. This is not a satisfactory state of things, looking to the extent of the expenditure involved; and by consolidating the whole business under the Control Department, we believe that the expenditure will be more effectually controlled and the transaction of business much simplified.

Business relating to transport should be under the Control Department.

Grant, 608.

There are some questions relating to the arrangement of barracks, transport, and other matters, which require consideration in detail; and upon which we will only observe that, while it must frequently be necessary that the Secretary of State should take the opinion of the Officer Commanding-in-Chief as his Principal Military Adviser upon questions relating both to finance and supply, we think that it is both unnecessary and inconvenient that the correspondence on these subjects should pass through the Military Department of the War Office, instead of being addressed to the departments immediately concerned with, and responsible for, such business. This correspondence will in future reach the War Office from both Home and Foreign stations, accompanied by the recommendation of the General Officer in command, who is necessarily an officer of great military experience; and it will be sufficient if the chiefs of the Supply and Finance Departments invite the opinion of the Military Department upon important or doubtful questions, before any decision is arrived at upon them.

Opinion of Military Department only necessary on important questions.

The position and duties of the Military Secretary have been explained by the Duke of Cambridge, as follows:—

Military Secretary's duties.
Duke of Cambridge, 1309.

"The Military Secretary has a double office; he is a personal officer of the Commander-in-Chief, but he has specific duties, such as the promotions and the patronage of the army, under his more immediate jurisdiction, and therefore he is acknowledged as a public officer."

And His Royal Highness confirms the description given by General Sir Charles Yorke, of the "personal" duties of the Military Secretary, which is in the following terms:—

"In the directions which the Commander-in-Chief wishes to give to the departments, either to the Quartermaster-General's Department, or to the Adjutant-General's Department, or to the War Office, he gives his directions to the Military Secretary, and the Military Secretary communicates them."

Yorke, 1092.

It is obvious that when, by the establishment of a general registry, all correspondence between the different divisions of the Horse Guards, and between the Horse Guards and the War Office, shall have ceased, there will be no occasion for the public letters which are now signed by the Military Secretary on any subjects excepting those which relate to promotions and patronage.

We think that all business should be dealt with and disposed of in the division to which it belongs, and by the officers who are responsible for the conduct of that business. That this is not altogether the case at the present time, is sufficiently proved by the evidence which we have received, and by the return of distribution of work at the Horse Guards. To illustrate our meaning, we will take the case of business relating to general courts-martial. The Officer Commanding-in-Chief advises Her Majesty as to the military bearings of the sentence, and signs the letters necessary to carry the sentence into execution. At present the proceedings of General Courts-Martial pass through the Military Secretary, who is described by His Royal Highness as occasionally "assisting him in going through the work," and who afterwards prepares the requisite letters for signature. We think that the proceedings should go to the Adjutant-General, who is the head of the division responsible for the discipline of the army. Any assistance which the Officer Commanding-in-Chief may require, should primarily be given by the Adjutant-General (of course without precluding the advice of any other competent person), and the letters for the signature of His Royal Highness should be prepared in the Adjutant-General's Division.

Business should be disposed of in the Division to which it belongs.

Duke of Cambridge, 1311.

Duke of Cambridge, 1313.

Paulet, 135.

The same observations apply to the relation of the Military Secretary to the official business of other divisions. The Duke of Cambridge has explained that in his "personal" capacity—

Military Secretary's duties should be confined to promotions and appointments.
Duke of Cambridge, 1309.

"the Military Secretary merely collects the business for the Commander-in-Chief, just as the Private Secretary at the War Office does for the Secretary of State."

The analogy appears to us to be theoretically complete, and only to require to be carried out in practice. The Private Secretary to the Secretary of State prepares no official letters for signature, has no office

establishment, and keeps no separate official records. Letters for the signature of the Secretary of State, or conveying his decisions, are prepared in the departments to which they belong; and we recommend that, whatever arrangement may be made for the transaction of the private business of the Officer Commanding-in-Chief, the public duties of the Military Secretary should be confined to promotions and appointments, and that all that part of his office which is concerned with the official transaction and record of other public business should be dispensed with.

Distribution of business after the abolition of the Board of Ordnance not entirely satisfactory.

Some difficulty has been found in making a satisfactory distribution of the duties which were formerly performed by the Master-General and Board of Ordnance, and which comprised the command of the Royal Artillery and Royal Engineers, and all the business relating to armaments, munitions of war, fortifications, and other works constructed or superintended by the Royal Engineers. When the Master-General and Board of Ordnance were abolished in 1855, those duties were divided (under the general authority and responsibility of the Secretary of State for War) between the Officer Commanding-in-Chief and other officers whose designation and functions have since been frequently changed, but as yet without arriving at a completely satisfactory result.

Command of Artillery and Engineers should be vested in the Officer Commanding-in-Chief.

It appears to be generally agreed that the command of both corps should, together with that of the rest of the army, be vested in the Officer Commanding-in-Chief; that questions of discipline affecting them should be disposed of as similar questions are dealt with in other branches of the service; and that the military authorities should be responsible for the proper custody and expenditure of warlike stores in the charge of the Royal Artillery, in the same manner as they are responsible with respect to arms and ammunition in possession of the Infantry and Cavalry.

Difference of opinion as to the channel through which command should be exercised.

There is some difference of opinion as to the officers through whom the authority of the Officer Commanding-in-Chief should be exercised, and as to the manner in which business connected with the Royal Artillery and Royal Engineers, which frequently involves professional and scientific questions of great intricacy, as well as financial considerations of the largest kind, should be transacted.

"Principal Staff Officer" of Royal Artillery and Inspector-General of Artillery.

His Royal Highness the Duke of Cambridge proposes to retain in the Adjutant-General's Division an officer of the Royal Artillery, who, as the "Principal Staff Officer" of the corps, shall administer its interior economy and advise the Officer Commanding-in-Chief with respect to the promotion and distribution of officers. An Inspector-General of Artillery should, in the opinion of His Royal Highness, be attached to the Military Department for the inspection of the corps, and of the armaments and munitions of war in their charge. The latter duty will, in our opinion, if diligently performed, conduce to economy by securing the careful preservation of armaments, and a revision, from time to time, of the quantities of warlike stores in charge of the Royal Artillery.

Duke of Cambridge, 1361.

Recommendations for the conduct of business relating to Artillery.

We recommend these arrangements for adoption as not interfering with the present organization, and because they appear to us to be correct in principle: for a distinct line is drawn between (1) the "personnel" of the corps, together with the armaments and stores in their charge, and (2) the custody of the reserves and provision of the "matériel," which latter duties naturally belong to the Control Department. The reports of the Inspector-General of Artillery relating to discipline would be disposed of in the Military Department, and those relating to armaments and munitions of war would, when necessary, be forwarded with the opinion of the Officer Commanding-in-Chief, to the Control Department for consideration and disposal by the Secretary of State.

Adye, 956, 957, 994.
Lefroy, 1139, 1140.

Difficulties connected with the administration of the Royal Engineers.

The administration of the Royal Engineers presents greater difficulties. So far back as the year 1837, when the Duke of Richmond proposed to separate the command of the corps from the superintendence of the works executed by them, the disadvantages of such a separation were forcibly pointed out by all the highest authorities upon the subject, and particularly by Sir James Kempt, Sir Hussey Vivian, Lord Hardinge, and Sir John (then Colonel) Burgoyne.

The Board of Ordnance was abolished in 1855, and the complete separation was effected in 1859. In 1860, the Military Organization Committee reported as follows:—

"Mr. Herbert admits that the late transfer of the military command to the Horse Guards has not hitherto worked to his satisfaction; that harmonious action is wanting; that the corps is under two masters; and that the predictions of 1837, so far as the Engineers are concerned, have in some measure been verified."

P. 13.

Office of Inspector-General of Fortifications should be revived.

Simmons, 816, 817, 830, 831, 842, 864.
Jervois, 720, 721, 811, 812, 813.
Murray, 884, 885, 886.
Duke of Cambridge, 1366.

No substantial alteration has since taken place, and the evidence which we have received shows that the difficulties which then existed still remain. Such being the case, we recommend the adoption of the plan which was suggested by Lord Herbert to the Committee on Military Organization, and with which His Royal Highness the Duke of Cambridge substantially concurs,—namely, that an officer should be appointed who should fill the same position as the Inspector-General of Fortifications filled under the Board of Ordnance, and who, under the Officer Commanding-in-Chief, should direct the distribution of the officers and men of the corps, and also advise the Secretary of State as to the estimates for works, and superintend their execution by the corps.

Position of the Deputy Adjutant-General of Engineers.

It will not be necessary to disturb the present arrangement by which the Deputy Adjutant-General of the Royal Engineers is placed under the Adjutant-General of the Army, for the purpose of assisting him in questions relating to the discipline and interior economy of the corps

if it be clearly laid down that all general arrangements relating to the distribution, both of the officers and men of the corps, should be submitted to the Officer Commanding-in-Chief, by the Inspector-General of Fortifications. We recommend that a special and temporary arrangement should be made for the superintendence of the completion of the works provided for by the Fortification Loan, which are of an exceptional character.

Financial control over expenditure on works not weakened.
Simmons, 825, 828, 529.
Jervois, 769, 772.
Murray, 887, 888, 889.

It will be seen from the evidence of Sir Lintorn Simmons, Colonel Jervois, and Colonel Murray, that no alteration whatever will be made, under the arrangements we propose, in the exercise of complete financial control over the expenditure of public money upon works.

There remains some other business connected with the Military Department as to which our remarks will be brief.

Topographical Department.

The collection and record of strategical and topographical information should be under the direction of an officer specially selected for his knowledge of military history and strategy, who should hold the appointment for a longer term than the ordinary length of staff service. It appears to us that this business should be placed under the Military Department.

Director-General of Military Education.

The subject of the education of the army was referred in the year 1868 to a Royal Commission, who have recently made a report, in which they recommend the substitution of a Director-General of Military Education for the present Council of Military Education. We will only remark that the business of the Director-General of Military Education, which relates to the examination of officers for promotion, and the superintendence of army schools, &c., should form part of the Military Department.

Director-General of Army Medical Department and Chaplain-General.

The Director-General of the Army Medical Department and the Chaplain-General should be attached to the Military Department.

Future distribution of business.
Duke of Cambridge, 1337.

We have now concluded the observations we have to make as to the several divisions of the Military Department, and it only remains for us to state what general arrangements appear to us to be the best for their superintendence. His Royal Highness the Field Marshal Commanding-in-Chief has been good enough to place in our hands a table showing the distribution which he recommends, and we concur generally with that distribution, subject to the modifications which we have proposed in the duties of the Military Secretary.

Offices of Adjutant-General and Quartermaster-General should be combined.

We think, however, that the reduced business to which we have proposed to limit the Quartermaster-General's division should not be placed under an officer co-ordinate in authority with the Adjutant-General, but that the offices of Adjutant-General and Quartermaster-General should be combined, and the business relating to the distribution of the forces form a subdivision of the Amalgamated Department. There would thus be under the Officer Commanding-in-Chief one officer who would deal with all questions relating to the discipline, organization, and distribution of the regular and reserve forces, with the exception, to which we have already referred, of the distribution of the Royal Engineers. We think that greater unity of administration would thus be secured than would be the case if, as is proposed by His Royal Highness, there should be in future an Adjutant-General superintending five important sub-divisions, and a Quartermaster-General with very limited functions. Our proposal is in accordance with the example of the French War Office, in which the discipline and the distribution of the forces are placed in the same "Bureau" of the First "Direction" of the office of the Minister for War.

Performance of the duties of the Officer Commanding-in-Chief in his absence.
Duke of Cambridge, 1383.

No arrangement now exists for the performance of the duties of the Officer Commanding-in-Chief if he should be absent, or unable from illness to perform them, and we think that the head of the combined division should be the "locum tenens" of the Officer Commanding-in-Chief in such a contingency; the officer at the head of the Discipline Sub-division performing the duty of the head of the division in the absence of the latter officer.

Present and former functions of the Officer Commanding-in-Chief compared.

Under the organization which we recommend the Officer Commanding-in-Chief would be relieved of some detail business; and it appears to us, that to attempt to deal with much detail is incompatible with the functions which the Officer Commanding-in-Chief will have to discharge. In considering the organization of the Military Department, we have been forcibly reminded of the great changes which have recently taken place in those functions. Before the Crimean War the authority of the Commander-in-Chief was limited to Great Britain and Ireland;*—the command of the Royal Artillery and Royal Engineers devolved upon the Master-General of the Ordnance,

Evidence taken before the Commissioners on the Civil Departments of the Army, 16th July 1836, p. 40.

who was also described by the Duke of Wellington as the Military Adviser of the Administration;—no questions relating to fortifications or armaments came under the consideration of the Commander-in-Chief, and it is unnecessary for us to dilate upon the difficulty and importance of such questions at the present time;—the local European army of the East India Company was still in existence, and none of the intricate problems which, since the amalgamation of the European forces of the Company and the Crown, have constantly arisen, and are still far from having been finally solved, had to be considered by the Commander-in-Chief;—lastly, the Militia was then under the Home Secretary, and the Volunteer forces had not been raised, so that there were none of the questions which have recently been so prominently brought under notice respecting the combination of those forces with Her Majesty's regular troops for the defence of the country.

Result of comparison.

This comparison between the position occupied formerly by the Officer Commanding-in-Chief and that which he will now occupy is, we think, sufficient to show that official arrangements which might have answered in former times, are not necessarily suited to existing circumstances.

* *See* Appendix 14 to Report of Select Committee on Military Organization, 1860.

We can well understand the feeling which induces His Royal Highness the Duke of Cambridge to feel some hesitation in relinquishing any portion, even of the details, of the business with which he has been accustomed to deal. No one who has been in communication with His Royal Highness can fail to appreciate both the intimate knowledge of every branch of the service which he possesses, and unwearied application with which he devotes himself to the transaction of business; but it must not be forgotten that true principles of organization demand that the higher officers of the State should be relieved from the unnecessary burden of details; this is perhaps more necessary in the administration of the army than in any other branch of the public service, for a Military Department is essentially for use in time of war, and a system which is worked to the highest pressure in time of peace must inevitably break down in time of war.

High officers of State should not be burdened with details.
Grant, 591.
Duke of Cambridge, 1302, 1314.

While we recommend with confidence that the divisions of the Adjutant-General and Quartermaster-General should be amalgamated under one officer, we are aware that the alteration would involve considerable changes in the local distribution of duties between officers of the military staff of the army.

Distribution of duties amongst staff officers.

The staff of the army is divided into two distinct branches; that of the Adjutant-General, and that of the Quartermaster-General. In France, and in the principal military nations of Europe, a different organization is in force, under which there is one chief staff officer, with such a number of subordinate staff officers as may be required for the various duties which have to be performed.*

English and foreign systems compared.
Duke of Cambridge, evidence given on 13th April 1869.
Grant, 613, 626, 630.
Storks, 707, 709, 710, 711.

If the latter organization were adopted in this country, we believe that considerable advantages would follow. A General Officer in command would give his orders to two principal officers under him, a chief of the staff upon matters of strategy and discipline, and a controller upon matters of supply and transport—the whole military staff of the army would be concentrated and made available for every service—unnecessary correspondence would cease—and, as the natural consequence of the introduction of a simpler system, considerable reductions of establishments might be made, to the advantage of the public service, both as regards efficiency and economy.

Advantages of foreign system.

When the system of control, by which the supply departments of the army have been reorganized, has been completely established, a reorganization and consolidation of the staff of the army appears to us to be the next great improvement to be made in our military organization; and this consideration has been an additional reason for inducing us to recommend a re-arrangement of business at head-quarters. It may probably be thought advisable to effect the consolidation of the staff gradually, and with this view a Quartermaster-General's division might be provisionally retained in the Military Department on a reduced scale, with the clear understanding that, pending the complete introduction of the new system, the Adjutant-General should be the staff officer next in rank and position to the Officer Commanding-in-Chief.

Staff of the army should be consolidated.

It will be seen that in our recommendations with respect to the Military Department, we have taken into consideration the very considerable addition which is about to be made to the duties of the Officer Commanding-in-Chief, by including under his department the discipline and organization of the reserve forces. Our proposals for the internal organization of the department are based upon the assumption that, in accordance with statements made in Parliament, † the Officer Commanding-in-Chief will be located in the same building with the Secretary of State. Indeed, as a practical question, no scheme of re-organization and reduction can, in our opinion, prove successful and complete, which is not based upon the accomplished fact that all the departments of military administration are housed under one roof.

General Commanding-in-Chief should be in the same office with Secretary of State.

We have, lastly, to make some general remarks with reference to the reductions which we think may be made in the present establishments.

General remarks.

Throughout our inquiry we have been guided solely by considerations as to the best manner in which the business of the army can be distributed and superintended. We have not understood the question referred to us to be so much whether any and what saving could be made in existing departments—whether an officer or a clerk could be dispensed with in this or that part of the vast establishments which have come under our review—as the far larger question of the manner in which the whole administration of the army can most efficiently be conducted.

Scope of inquiry.

We have, however, arrived at the conclusion that a sound system of administration would be accompanied by very considerable reductions in the present establishments.

Considerable reductions feasible.

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* "The division of our staff into the two departments of Adjutant and Quartermaster-General is injurious, and does not "work well in the field. One staff would be a vast improvement; and as we are at last doing away with a number of civil "departments, and putting the civil administrative duties of the army under one head, it is to be hoped that a similar improvement "may be soon effected regarding our disunited staff. Every officer who has served on the staff in the field knows how continu- "ally letters are sent to the wrong department; and, indeed, it is difficult for any one to remember the curious division of subjects "between the two. If the two assistants do not pull well together, the service is likely to suffer. The duty would be better and "more easily carried on by having one chief staff officer and two or three assistants with each division. In the same way there "shoud be a chief of the staff at head-quarters, with deputies and assistants under him as required.

"According to custom, there are always with each division in the field, an assistant and a deputy-assistant of each depart- "ment, and a Brigade-Major with each brigade; by this arrangement those of the Adjutant-General's Department have but little "to do, whilst the Quartermaster-General's officers are, during active operations, over-worked."—*The Soldiers' Pocket Book for Field Service, by Colonel Wolseley, Deputy Quartermaster in Canada.*

† Hansard, 3rd Series, 194, p. 355.

We can only state our opinion with respect to these reductions in general terms, because they depend upon a careful consideration of the details of the transaction of business under a new organization of departments. Such detailed arrangements can only be made in communication with those who would have to conduct the business under the new system, and we have not considered ourselves justified in entering into such communications.

War Office.

We can, however, say that in the War Office it seems to us that the offices of Assistant Under Secretary of State, Chief Auditor, and Deputy Director-General of Ordnance might at once be abolished, and that a reduction may be made in the number of clerks employed in the Central Office. The amalgamation of the departments of the Accountant-General and Chief Auditor would make a large reduction possible in the number of clerks now employed in those Departments.

Unnecessary minuting of papers in the War Office. P. 16.

We think it necessary to observe here that we have been particularly impressed with the great amount of work which is still created in the War Office by the unnecessasy minuting of papers, notwithstanding the decided opinion expressed by the Military Organization Committee, and the many condemnations which that system has received from competent authorities.

Remedy pointed out.

The only real remedy is to change, as far as possible, the principle upon which business is conducted in the War Office. Questions should be dealt with immediately by heads of departments, divisions, or subdivisions, and only referred to their subordinates when former papers have to be consulted, or a précis is required. These observations may seem to be trivial, but we are satisfied that the mode of transacting business might be substantially improved by such a change. Many of the references between different branches which are now made upon minute papers will become unnecessary when a better distribution of the business of the office has been adopted.

Horse Guards.

In the Horse Guards, if our recommendations are adopted, the appointment of Quartermaster-General would ultimately be abolished, the establishments of the Military Secretary, of the Quartermaster-General, and of the Deputy Adjutants-General of Royal Artillery and Royal Engineers, would be considerably reduced; and some further reductions might be made when business comprised under the Military Department is re-arranged.

Conclusion.

Many discussions have taken place upon the organization of the War Office since the time when the Departments of the Ordnance, Secretary at War, Commissariat, Home Office, and Colonial Office were, so far as they dealt with military matters, amalgamated under a Secretary of State for War. Persons who are conversant with those discussions will confirm us when we say that in a great part of our proposals we have only given fuller and more complete development to principles which were laid down by Lord Herbert in 1860, and which have been also asserted by other high authorities upon army administration. We wish, particularly, to point out that those of our recommendations which relate to the responsibility which should be placed upon the chiefs of departments, have long ago been made, almost in the same language which we have used, by the Treasury Committees which have reported upon the constitution of the War Office.* It is a satisfaction to us to know that we can claim the support of such high authorities; and we feel confident that, in framing the scheme for the organization of the War Office, which we have now the honour to propose for Mr. Cardwell's consideration, we have been guided by the only principles which can bring into complete harmony, and within reasonable dimensions, the various departments which are now concerned with the administration of the Army.

Extracts from the Analysis of Evidence given before Lord Northbrook's Committee of 1870.

RALPH THOMPSON, ESQ.—examined, 23rd December 1869.

* * * * * * * * *

1250. (*Chairman*):—You are in charge of the Registry at the War Office? Yes.

1251. You received instructions, I believe, some short time ago, from the Secretary of State for War, to go to the Horse Guards with the view of arranging the establishment of a Registry at the Horse Guards, which should form part of the General Registry of the War Office? I did.

1252. Have you had an opportunity of seeing the extent and nature of the correspondence which is carried on at the Horse Guards? Yes, I have been carefully through all the letters received in one day in each department.

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* *Extract from a Report of a Treasury Committee appointed to enquire into the Account Branch of the War Office, dated 8th April, 1859.*

"A large public department like the War Office can only be maintained in efficient working order by fixing upon every subordinate branch clearly-defined duties and a distinct responsibility. If defects arise in any of the duties, the remedy should be applied in the branch itself; all attempts to correct such defects by removing duties and responsibility from the branches upon which they should properly rest, or by creating new duties in one branch to supply information or checks which ought to exist in a perfect state in another, must ultimately lead to the disorganization of the department."

Extracts from a Report of a Treasury Committee appointed to enquire into the Account Branch of the War Office, dated 25th June, 1860.

"It appears to us that each department which is charged with the administration of a particular vote of Parliament ought to be held responsible for its due application, and should be able to furnish from its own books every information that can be required regarding the progress of the expenditure entrusted to it. The attempt to supply any want of system by independent checks must tend to weaken that sense of subordinate responsibility, by the maintenance of which a vast department like the War Office can alone be maintained in order and efficiency.

* * * * *

"In an extensive department like the War Office, the work requires the combination of many hands, and can only be harmoniously and efficiently carried on by a due observance of the important principle of subordinate responsibility. Every head of a department is entitled to confidence in the control of the business entrusted to him, and any proceedings which tend to weaken his authority must not only interfere with the proper discipline of the department, but in fact relieve him from that responsibility which he owes to his own superiors in office."

1253. Can you give us an idea of the extent of the correspondence at the Horse Guards? About 600 letters a day are received in all the Military Departments there, and a few more than that number come in the shape of returns.

1254. What is the extent of the correspondence in the War Office? About 800 to 1,000 letters a day are registered, more are received, but they are either not of sufficient importance to be registered or are periodical returns which need no registration.

1255. What proportion of the correspondence at the Horse Guards is inter-departmental? About one-sixth of it.

1256. Do you mean between the Horse Guards and the War Office, or between the departments at the Horse Guards? Between the Horse Guards and the War Office, and between the departments at the Horse Guards.

1257. Do you think that it is possible to incorporate the correspondence at the Horse Guards with that at the War Office? Yes, I see no difficulty in it.

1258. What result would follow from such an incorporation? First of all, that portion of the correspondence which you have described as "inter-departmental" would cease. The original papers would be sent from branch to branch with questions put, and those questions would be answered on the papers themselves. There would be a still further saving arising out of such a concentration of records, as the duplicate reports which are sometimes sent to different departments of the Horse Guards upon the same service would become unnecessary. For instance, if a letter is written from a regiment to the War Office on a supply subject, a duplicate of that letter is sent to the Horse Guards; and duplicates of letters on important subjects from General Officers commanding abroad to the Secretary of State are also sent to the Commander-in-Chief.

1259. Do you mean that if a letter is sent from an officer commanding a regiment, to the War Office, about supplies, a copy of it is sent to the Horse Guards? Yes.

1260. In point of fact, all store letters come in duplicate? Yes.

1261. And, therefore, the saving of business which was anticipated by the establishment of the control system is not carried out? I can hardly say how far that has come into operation. The equipment warrant is not yet issued, and a good deal of the regimental supply business comes to this office and to the Horse Guards, which will be done locally.

1262. If there was one Registry there would be no difficulty in all branches referring to it? Not the least.

1263. Can you give an idea whether any reduction in the number of clerks employed in the two departments—Horse Guards and War Office—would be effected by the establishment of a common Registry for the War Office and the Horse Guards? I cannot give a mumerical estimate, but the reduction would be very considerable.

1264. The work which is created at the Horse Guards is also created at the War Office in writing the letters? Yes.

1265. All of which would be avoided if no letters passed between the departments? Just so.

1266. If the correspondence was in one Registry, would it enable the Secretary of State to have more general knowledge than he now possesses of important matters coming to the Military Branch of War Office? Certainly.

1267. You have, I think, for some little time, kept in your department a record of important correspondence as it has arrived, which has gone either to the Secretary of State, or the Under Secretary, or the proper department? Yes.

1268. Would there be any difficulty in having a written record of all the important correspondence which arrives every morning for the information of the Secretary of State and the principal heads of departments? None whatever.

1269. In that case, on the one hand, General Officer Commanding-in-Chief would know anything which arrived connected with the other departments and the other departments would know anything which arrived connected with the Military Department? Yes.

1270. And, therefore, no news of importance could arrive without the Secretary of State being acquainted with it? No.

HIS ROYAL HIGHNESS THE FIELD MARSHALL COMMANDING-IN-CHIEF—examined, 10th January 1870.

1271. (*Chairman*).—Your Royal Highness is Field Marshal Commanding-in-Chief? I am.

1272. Since what time? Since 1856.

1273. Your Royal Highness has seen the evidence which we have taken? I believe that I have read every word of it.

1274. The business which is transacted by Your Royal Highness relates to the command of the forces, the discipline of the forces, and to appointments and promotions? Yes.

1275. Your Royal Highness also exercises the function of Chief Military Adviser to the Secretary of State for War? Yes.

1276. I need scarcely ask Your Royal Highness whether you agree with the opinion of the Committee of the House of Commons upon military organization, over which Sir James Graham presided in 1860, and also with that expressed by Sir Charles Yorke, by the Adjutant-General, the Quartermaster-General and the Military Secretary, who were examined before us, that it would facilitate the transaction of business if the War Office and the Horse Guards were under the same roof? I think that it would do so very considerably. In fact, it was so up to the time when the office of Master-General and the Board of Ordnance were done away with. The Secretary at War at that time and the Commander-in-Chief were under one roof. When the office of Master-General of the Ordnance was done away with, of course it was impossible to find room for the whole of the two departments combined, and the Secretary at War went to the buildings occupied by the Ordnance Office in Pall Mall, and took up his residence there. That was before I came to the Horse Guards, but that was the way in which the change took place. I think that so long as the two officers cannot be under the same roof, it would not be desirable to merge the Horse Guards and the War Office, as it

is essential that there should be a distinct command on the part of the Horse Guards, which can only be arranged satisfactorily in an enlargement of the present Horse Guards, or in a new building. I think that it would be very desirable to arrange that the military command should be on one side of the present Horse Guards whilst the Secretary of State's office with the Financial Departments should be on the other, with a general communication connecting the two offices, each having a separate entrance.

1277. It appears from the evidence which we have received, that the different departments of the Horse Guards correspond with each other. Does Your Royal Highness think that that system could be altered? Yes, I think that it would be better to modify the present system in this respect. For the purpose of ensuring that every department should know what was going on, it has been customary to let each department concerned have a copy of whatever letter or paper has been written upon any particular subject; but I think it very possible, and perhaps desirable, and certainly it would reduce correspondence, if there was only one paper kept, whether in a Registry Office or in the branch of the office more immediately connected with the subject, to which a reference could be made at all times from the other branches.

1278. It also appears from the evidence that very considerable correspondence takes place between the Horse Guards and the War Office? Yes.

1279. Does Your Royal Highness think that any alteration might be made in that respect? There is no doubt about it. I see no reason why you could not do so at once, because, whether a communication goes from here to the War Office in the shape of a minute, or in the shape of a letter, is quite immaterial. I think that that is not a question of locality. I think that you might effect that alteration at once, even under present circumstances.

1280. Could a system of registry be adopted which would make it possible to communicate by means of minutes? I am sure that it could. Mr. Thompson, I believe, has investigated the subject, and a Committee have gone into the question, and a report has been drawn up by Colonel Egerton and other gentlemen who met Mr. Thompson. I think that there would be no difficulty in the matter. It is premised that the registration should be a general one for the War Office and for the Horse Guards. I think that the same system of registry should exist, but that it would be just as well to have a registry for the Military branch by itself, which could be done, and I think that you would have the whole system worked better in this manner, because there are many papers which we have which would not be required by the Financial authorities and *vice versâ*. I think that it would simplify business if you kept the papers separate, but at the same time I think that one general registry could be kept if it was wished. There is one point upon which I should desire to make an observation: I should be very sorry if there was any change in the system of working my office, in which the work is done from the top downwards, whilst in the War Office the business is worked upwards. I should not like to see that system adopted here. Here all papers go to the heads of departments, and any information which is wanted is obtained from the subordinates. In the War Office, as far as I understand the system, the papers go to some sub-department and are worked upwards, and I think that it is a much better plan to work from upwards down than from downwards up.

(*Sir Edward Lugard*).—We have broken through that system a great deal.

(*The Duke of Cambridge*).—Supposing that there is a paper of the Adjutant-General; he asks for information upon it from any gentleman in his office, but if such paper went first to a subordinate officer, opinions would be given upon it from below; whereas I think that the opinions should come from above, and that the department below should only be expected to afford information which is almost mechanical, and which cannot be obtained without great loss of time by an individual in a high position, but which can readily be acquired by a subordinate. All those points which require information are thus collected before a decision is arrived at. That is my view of the mode in which business should be done.

1281. (*Chairman*).—Then I am to understand Your Royal Highness that these arrangements are now contemplated? The arrangements, I believe, are contemplated by the Secretary of State, and as far as I am concerned, I am perfectly satisfied with them. I think they are very good arrangements.

1282. And when completed Your Royal Highness would give orders to the heads of the Military Departments without any correspondence passing? Certainly, there is no difficulty about it; we could do it at any moment; in fact, we have done it at present. There is a certain amount of business, however,—the Commander-in-Chief's confidential business,—which could not be registered.

1283. In the same way, when any matter arises upon which the Secretary of State wishes to receive Your Royal Highness' advice as his Chief Military Adviser, that advice would be communicated in the way of a minute instead of a letter? Quite so; it is just as easy to do it in one way as the other.

APPENDIX XIX.

History and Organization of the War Office.

Extract from the War Office List.

"The War Office, as at present constituted, has been compounded from many sources. At the time of the outbreak of the Russian war, in March 1854, the functions connected with the administration of the military forces of the empire were widely distributed. The Secretary of State for War and the Colonies, sitting at the Colonial Office, had a general but vague control, practically limited, however, to times of war, and entailing no responsibility for the details of army management. The Secretary at War, with an office at the Horse Guards, superintended all the financial operations of the army proper as regarded its *personnel*, but had no control over the Artillery or Engineers, or over the

matériel of the force. The power of this officer was, however, great, as the Parliamentary representative of the army and Commander-in-Chief. This latter officer had, under the Sovereign, absolute control over the army and administered its patronage; but was unable to adopt measures involving financial results with the concurrence of the Secretary at War. At the same time, no defined relationship existed between the respective responsibilities of the Secretary at War and Commander-in-Chief. The control of the ordnance services was vested in the Master-General and Board of Ordnance, who were bound to supply material for the army on the requisition of the Secretary at War, and to provide adequate Artillery and Engineer contingents at the demand of the Commander-in-Chief. A separate office existed for the Medical Department, responsible to the Commander-in-Chief in matters of discipline, and to the Secretary at War in matters of finance. This department, styled the Army and Ordnance Medical Department, was governed by a Director-General, and till a few years further back had shared the general duality by being sub-divided into an Army Medical Department and an Ordnance Medical Department, with a Director-General at the head of each. The Commissariat Department was only a semi-military branch of the Army, and had its head-quarters at the Treasury. The accounts both of army and ordnance, after being acted on by their several departments, were transmitted to the Audit Office at Somerset House. Before 1852, the militia had been under the direction of the Home Secretary, but had then been transferred to the Secretary at War. As minor departments maintaining a more or less distinct existence may be mentioned the Director-General of Artillery and the Board of General Officers for the inspection of clothing. *These numerous officers communicated with each other by letters, and it was inevitable that delay and confusion should arise in the conduct of any weighty affair by the action of so many almost independent powers, each with a province of ill-defined limits.* In practice, indeed, it was found that different departments competed in the market for the same thing; that disputes arose between them on trifling points, which there was no central authority with power sufficient to decide; and that the result was unquestionably detrimental to the public service.

In 1854 it was deemed advisable to separate the business of the Colonies from that of War, and the Secretary of State for War assumed control over all the other administrative officers. In February 1855 the Secretary of State was appointed Secretary at War also, the duties of the two offices being amalgamated. Shortly after the Commissariat Office was transferred to the War Department. Next the Board of Ordnance was abolished, after an existence of more than three centuries, its military functions being vested in the Commander-in-Chief and its civil duties in the Secretary of State. The Board of General Officers and the Army Medical Department were successively absorbed into the War Department; and lastly in 1856, to facilitate the audit of military accounts, it was decided to complete it in the War Office under auditors responsible to the Commissioners of Audit. In consequence of this arrangement, a certain number of clerks, whose services were no longer required at the Audit Office, were transferred to the War Department, which thenceforth became known as the War Office, and comprised all the *civil* administrative offices of the army. The military control remained as previously in the hands of the Commander-in-Chief, for whose exercise of it, however, the Secretary of State became responsible to Parliament.

The year 1870 witnessed a further unification of responsibility in the final welding into one War Office of the civil administrative functions of the Secretary of State and the military administrative function hitherto exercised at the Horse Guards. Under the War Office Act (1870), and three similar consequent orders in Council, Parliament and the Crown concur in vesting the direct and immediate control of every branch whatsoever of army administration in the Secretary of State. For the exercise of this power of control, the Secretary of State has the aid of his two Under Secretaries of State. The actual army administration is divided between three great officers (any or all of whom may be in Parliament), *viz.*, (1) the Officer Commanding-in-Chief, in charge of the combatant *personnel* of all regular and irregular forces; (2) the Surveyor General of Ordnance, under whom are all civil administrative duties, with the charge of *matériel*; and (3) the Financial Secretary, who is responsible to the Secretary of State for the estimates submitted to Parliament, with the appropriation, accounting and audit of all funds voted thereon. The central section is under the Under Secretaries, and is limited to the conduct of such constitutional or other matters as do not specially pertain to either of the three great officers."

Present organization of the War Office.

The Military Department or Horse Guards.—This portion of the War Office is divided into the Adjutant-General's division, the Military Secretary's division, and the Military Education division.

The Adjutant-General's division comprises the following:—Quartermaster-General, the Intelligence Branch, Auxiliary Forces, Royal Artillery, Royal Engineers, and Recruiting; each of which is presided over by a high staff officer.

The Military Secretary's division comprises three officers dealing with personal questions of officers, both in England and India. The Military Education division has two officers, and comprises all questions of military education and instruction for officers and men. The total number of officers employed in the Military Department or Horse Guards is, independent of officers only "attached" to the Intelligence Branch, 31: of this number, 8 belong to the Intelligence Branch, so that 23 form the body of officers employed in the ordinary business of the army. The Director General of the Army Medical Department, and the Judge Advocate General are not, we believe, yet under the same roof as the Horse Guards, although they form part of the Military Department. The Works division, or that branch of the military administration which is presided over by the Inspector General of Fortifications and Director of Works, is located at the old Horse Guards, there being no room in Pall Mall. Whenever a new War Office is built, these departments will doubtless be concentrated.

The Adjutant-General's division is divided into six sub-divisions, besides which there are the sub-divisions for Royal Artillery, Royal Engineers, Auxiliary Forces and Recruiting. Each of the six sub-divisions has a principal clerk at its head.

The *Ordnance Department* consists of the following divisions, all under the "Surveyor General of the Ordnance": the Supply and Transport division, including Commissariat *personnel*, with a Director of Supplies and Transport with an Assistant (both civilians) and a Commissary General (commissariat officer); the Artillery and Stores division under a Director, with two Assistants (all artillery officers); the Contracts division under a Director (a civilian). The *department* is divided into seven subdivisions, each of which has a principal clerk at the head.

The *Finance Department* under a Parliamentary officer, the Financial Secretary, with an Accountant General, a Deputy Accountant General, and an Assistant Accountant General. This department is divided into nine subdivisions, each of which has a principal clerk at its head.

In addition to these departments there are various Standing Committees, such as the Defence Committee, Army Sanitary Committee, &c., &c.

APPENDIX XX.

East India (Military Commands-in-Chief).

Return to an Address of the Honourable the House of Commons, dated 21st April 1871;—*for*,

"*Copies of the Minutes of General* LORD SANDHURST, *while Commander-in-Chief in Bombay and in India, recommending changes in the Military Commands-in-Chief in India*":
And of any other Minute or Minutes on the same subject.

INDIA OFFICE,
27th April 1871.

T. T. PEARS, *Major General,*
Military Secretary.

Extract of a Minute by His Excellency the Commander-in-Chief of the Bombay Army, LIEUTENANT-GENERAL SIR WILLIAM MANSFIELD, K.C.B., *on the consolidation of the general staff of the line and local armies.*

FIRST SECTION—COMMAND-IN-CHIEF IN INDIA.

Head-quarters, Bombay, 2nd January 1861.

When considering the large question of the consolidation of the general staff of the army, it is perhaps convenient to treat the two questions separately which are involved in it, as stated in paragraph 1 of my first minute on the subject. The minor question having been disposed of in that paper, the larger one affecting the whole system of staff in India, and involving the appointments of general officers, remains for reply. Here there is much difficulty. For a long period of time the general nominations to divisional and brigade commands have been in the hands of the several Governors, while those to the office of Commander-in-Chief, and to two divisions in each presidency, were secured to the authorities at home. The nominations to divisional and brigade commands made by the Governor General for the great presidency of Bengal, and by the Governors of Madras and Bombay respectively, for the two minor presidencies, followed a rule of seniority* with the utmost servility.

This rule was held to be a right by the senior officers of the armies of the Company, and it was not infringed till the year 1857, when owing, in the first instance, to the imperious circumstances of the rebellion, and, secondly, to argument at home, it was finally abrogated. At the same time, in consequence of the large increase to Her Majesty's line forces serving in India, the number of general officers nominated by the Horse Guards was considerably augmented.

It may be well to consider the position of a Commander-in-Chief in India.

I believe it to be the custom of all the Governments,—it certainly is of the two with which I am acquainted—to call on the Commander-in-Chief for the initiative opinion in all matters affecting the army, whether they be purely military, such as discipline, reliefs, and marches, the construction and defence of fortresses, or what may be called military civil questions, involving the whole range of military, finance, commissariat, medical, and pay departments, &c., &c. The Government is not bound to act on the opinion of the Commander-in-Chief, but it has hitherto generally found it convenient so far to treat him as Minister of War, as well as head of the army, as to make his opinion the initiative on which, previous to action, to ground argument and inquiry. Thus, at the most critical times, it has happened that the head-quarter officers of the Commander-in-Chief have been engaged in the consideration of difficult questions, emanating from Government, while the Commander-in-Chief with his principal staff officers was engaged in directing operations in the field. To such occupations had to be added reports on barracks, pay, medical, and commissariat departments, coming from the several divisions of the army, all of them demanding anxious attention before being forwarded with opinions to Government. It will be apparent that a Commander-in-Chief and his staff officers, with an active enemy in their front, could hardly do justice to the enormous amount of business passing through their hands, without neglecting the important affairs of the campaign directed under the Commander-in-Chief's own eye, and of the war in which the empire might be engaged on several different points, requiring his general directions at the same time. Such, however, was the task imposed on Lord Clyde and his head-quarter staff, during the war of 1857-58-59. The strain for many months in each of these years was almost too much for any one, and I conceive, that when engaged in the remodelment of our establishments, we should take measures to secure an adequate division of labour, by which the whole mind and energies of the Commander-in-Chief in the field and of his staff may be secured for the war, while the permanent and ordinary business of the army shall be carried on without reference to the former.

* In respect to the few commands held by the Colonels of Her Majesty's service, the same rule of seniority was invariably followed whenever the nomination lay with the Government and Commander-in-Chief in India, and was particularly enforced in an injunction given, I rather think, in the late Lord Hardinge's time in India.

It may be assumed that the Commander-in-Chief of each presidency is sent out by Her Majesty's Government to be the principal military adviser of the Government to which he is attached. In the minor presidencies his position is so inferior that a clash with the Local Government is not very likely, and if it should take place, the consequences are not very important. Far otherwise is it with the great functionary called Commander-in-Chief in India. Whenever the latter is a man of quick and powerful mind, he finds his position difficult, at times almost intolerable. He has a great responsibility, is much appealed to, as shewn above, while he often feels and knows that around the head of the Government are irresponsible and secret military advisers, who regard him with hostility. Hence it is that many Commanders-in-Chief in India have always been most anxious to hve away from the Government as much as possible, while others have been engaged in conflict leading to resignation. I conceive that the evil of divesting the head of the Government of India of his chief and *responsible* military adviser can hardly be exaggerated; yet, if that responsible military adviser is to be at the same time an executive Commander-in-Chief, who is ever engaged in traversing the country on tours of inspection in times of peace, or at the head of the active army in time of war, it is utterly impossible for him to be in his place at the side of the Governor General, except at rare intervals of time. Military feeling is so strong, and the prizes of war are so great, that no Commander-in-Chief in India can resist the temptation of putting himself at the head of an army in the field, if he has an opportunity. In like manner, for the maintenance of discipline, to gain a knowledge of the army, of the manner in which it is housed, cared for, and handled, it is absolutely necessary that a Commander-in-Chief should be ever on the move in peaceful times. Therefore, as said before, the constant presence of the Commander-in-Chief in India in his place as a Member of the Supreme Government and the recognised responsible adviser of the Governor General in Council, is an impossibility under the present system. We must, besides, recollect that the presidency of Bengal is so vast, its stations are so numerous, and the army is so large, that if the Commander-in-Chief devote his whole attention to his executive duties only, he cannot hope to see the troops under his command above once in his five years of office.

Taking all these circumstances into account, I incline to the opinion very strongly that, when it may be convenient with regard to a variety of considerations to which reference from me is unnecessary, we should adopt a system for India similar to that prevailing in France. In the place of a Secretary to Government in the Military Department, who according to the present constitution of the office, can hardly be called a responsible military adviser of the Governor General, and in the place of the Military Member of Council, who hitherto has often not been chosen on account of his military qualifications, but because of his long service and general reputation, I would have a responsible Minister of War whose relations to the Government of India should be the same as those of the Minister of War in France are towards the Emperor. Such a minister should in India always be a military man of high* rank and nominated by the Cabinet, as we have lately seen a Minister of Finance appointed in the same manner.

I would then divide the present Bengal command into three *corps d'armée*, to be commanded by Lieutenant-Generals-in-Chief, each of whom would correspond with the Minister of War on all army matters, and with the Horse Guards† in the same manner as is now done by the officers commanding in the several presidencies. The Minister of War should receive returns from the Commanders-in-Chief of Madras and Bombay. The whole establishment of military finance should be under him, and the questions connected with it should be laid by him yearly before the Legislative Council in the form of military estimates, &c., &c.

In like manner‡ all military public works, all establishments, &c., &c., would be passed by him, thus relieving the Governor General of the mass of petty military detail, of which more than one Governor General has drawn a vivid and despairing picture. I think if we have the Presidency of Bengal divided into three Lieutenant-Generals Commanding-in-Chief, the troops will be better looked after in the vast area of the three Governments of Bengal, the North-West Provinces, and the Punjab, than has been possible since the extension of our frontier took place, in consequence of the Punjab, Pegu, and Oudh annexations.

I am aware an opinion has been held that, while we should have five Lieutenant-Generals to command the several *corps d'armée*, including Madras and Bombay, there should be a Commander-in-Chief in India over the entire mass of the Indian armies. To place an executive Commander-in-Chief over the whole of India would, I believe, entail one of two alternatives,—either he might attempt so direct and immediate a command as seriously to cripple the energies and activity of the several Lieutenant-Generals, and they would become so many channels of reference, to the great interference with the transaction of business, and the weakening of their sense of responsibility, or he would himself be a functionary for show rather than for use, if the Lieutenant-Generals exercised such a real command over their *corps d'armée* as is demanded by their positions. I cannot conceive that in any case he would be nearly so useful and effective as the responsible Minister of War, who would come in that character to form part of the Government, and would be bound, therefore, to *review the civil, as well as the martial elements* of our *military strength throughout India*. The three Lieutenant-Generals in command-in-chief for the Presidency of Bengal would be nominated at home according to the custom now prevailing for Madras and Bombay. The three new commands should generally follow the limits of the three Governments of Bengal, the North-West Provinces and the Punjab. Thus one Lieutenant-General should command in the Government of Bengal and in the Tenasserim and Burmah Provinces, another in the Government of the North-West Provinces and in Oudh, and the third in the Government of the Punjab.

According to the custom of the Government of India, when it has been necessary to combine the forces of the three presidencies, orders have been issued by the Governor General in Council. In the

* In France a Minister of War is generally a Marshal. His office is invested with the highest military consideration. So should it be with the Minister of War in India. In position, rank, and emoluments he should not be inferior to the Commander-in-Chief in India as at present constituted.

† It would probably be convenient for the Horse Guards to correspond with the Minister of War in India on subjects of general import to Her Majesty's regiments, as is now done in the communications between His Royal Highness the General Commanding-in-Chief and the Commander-in-Chief in India.

‡ I must apologise for touching on the duties of a Minister of War; but it would have been difficult for me to explain the system for command and the transaction of military business without alluding to it.

like manner the Commander-in-Chief in India, or in the minor presidencies, has never had the power of moving troops, without the orders and sanction of his Government. Consequently, as regards military combinations and movements, but little change would ensue. The Lieutenant-Generals Commanding-in-Chief would make their proposals to their respective Governments to move troops within their territories. Any movement requiring combination between the several commands would be ordered for the Supreme Government by the Minister of War, as is now done whenever a military combination is demanded between the several presidencies, either by the departure of troops on foreign service or for home, and by the transfer of corps from one presidency to another. No difficulty could possibly arise from these grounds, as the action of the Supreme Government, exercised through a Minister of War, *who would be conversant with and responsible for the establishments and corps of all the armies of India, including Madras and Bombay,* would be really more prompt than it is now, because the military departments attached to the Governor General, have, as I believe, but little cognisance of any army but that of Bengal. It is thus apparent that, while I would divide the military command, I propose to render the power residing in the Supreme Government for military action more effective, and to give it a greater concentration. It is on this account necessary that the Ministry of War for India should, as in France, be directed by a military man of rank and professional reputation, who would be really capable of advising the Governor General in war and in peace. There can be no necessity to give to the office the civil complexion demanded in England for the War Departments, to meet the covenience of constitutional government.

Such is the change I would venture to propose in the command of India, and the performance of the military business of the Supreme Government. In point of expense and number of appointments, there would be but little difference, while I believe that the convenience of the Government of India would be most favourably affected by it, and that the discipline, the well-being, and the interests of the army at large, would be alike advantageously consulted by the more immediate and personal superintendence in chief which would be established and made possible for the army of the presidency of Bengal, as it always has been possible for the minor presidencies. I venture to add that the necessity of such a change first became apparent to me when the late Sir Charles Napier was Commander-in-Chief in India, and when as Lieutenant-Colonel of a regiment, I had great opportunities of remarking on the evils arising from the immensity of the Bengal command, and the distances separating the Commander-in-Chief from his divisional officers. That opinion received the strongest confirmation from the experience gained during the two years and a half passed by me as chief of the staff in India in very critical times, under a Commander-in-Chief who never spared himself, either in the field or in the labours of the office, in peace or war. I believe that the troops in the Bengal Presidency alone, including the Saugor and Nerbudda territories, amount to twice the number of Prince Gortshakoff's army in Poland, and to be about treble a French or Austrian *corps d'armée* in ordinary times, while the area occupied by the army of Bengal is almost immeasurably greater than the country held respectively by the forces alluded to. In recent years, what has been called the want of discipline in the late Bengal army has been a fruitful subject of discussion. Many high authorities go so far as to attribute the terrible mutiny and rebellion to that cause only. Although I entirely differ from that opinion, and hold it to be most unphilosophical to ascribe a great combined attempt at revolution to any one single cause, I cannot but admit the fact of laxity in the late Bengal army, as so often dwelt on in Sir Charles Napier's orders; but I am not prepared to admit that the fault could be wholly laid on subordinate officers, or on any Commander-in-Chief. I attribute much of it to a system which did not expand to meet altered circumstances, which still continued one command-in-chief for the Bengal Presidency, after the area of territory to be guarded had been nearly doubled, the number of the soldiery receiving a proportionate extension. The consequences were the necessary absence of personal command and supervision on the part of the head of the army, and an unavoidably exclusive reliance on paper reports, without sufficient acquaintance between the Commander-in-Chief and his divisional, brigade, and regimental commanding officers. As the Supreme Government found it necessary to divide the immense swollen Presidency of Bengal into three Governments, to ensure the reality and limitation of local authority, so I believe it to be necessary to divide the Bengal army into three *corps d'armée* for the maintenance of discipline and of personal command. Had the army of Bengal been so divided before 1857, it admits of a doubt whether the mutiny of one portion of it would have entailed the spread of the disorder throughout the other corps. Our experience of the manner in which it was possible to hold the Madras and Bombay armies together, in spite of the example and propaganda to which they were exposed, seems to show that safety would have been found in that division of commands and *corps d'armée* which has now been recommended.

Extract of a Minute by His Excellency the Commander-in-Chief, SIR WILLIAM MANSFIELD, G.C.B., G.C.S.I., *dated Simla, 17th October 1867.*

To pursue the analogy drawn from the United States still further, I would point out that in that country there is but one War Ministry, whereas in India we have three military departments. It thus happens that the two minor governments have a position of independence with regard to military affairs which is unknown in any other constitution in the world.

The result is a competition for the maintenance of armies and establishments, instead of a combination under the Supreme Government for absolute economy in military expenditure, with regard only to the military wants of the empire at large.

This, again, I venture to submit, is an instance of decentralisation the wrong way.

There should be but one War Ministry of India, as there is at Washington, and the military departments of Bombay and Madras should be wholly affiliated to the War Ministry under the Government of India, instead of being separate establishments as they now are, owing fealty alone to their respective governments. Such argument may take place without in any manner interfering with the local character of the armies of Madras and Bombay, which, for important political and military reasons, should not be interfered with.

I would add that this opinion is not advanced by me now for the first time, but I gave expression to it, and to the mode of carrying it into execution, so long ago as 1861, when I was Commander-in-Chief and a Member of Council in Bombay.

APPENDIX XXI.

Opinions of Sir Charles Trevelyan, Lord Sandhurst, Lord Lawrence and others, and Sir Henry Durand, regarding the position of the Commander-in-Chief in India and his relations to the Governor General in Council.

Extract from the answers of SIR C. E. TREVELYAN, K.C.B., *to the questions proposed by the Select Committee on East India Finance, appointed 7th February 1873.—Pages 60 and 61 of 3rd Report.*

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837. You think that we have not reaped the full financial benefit that we ought to have derived from the larger European force in the country?

No; but there is still a third economy. I have mentioned a great economy of force, and I have mentioned a great economy of head-quarter staff establishments; but there is also a third economy. There is a very anomalous office in India, that of Commander-in-Chief; it is an over-grown office altogether. The Commander-in-Chief is too great a functionary to be a satisfactory subordinate. I can remember beginning with Sir Edward Barnes, several great embarrassments arising from the conflicting claims of the Commander-in-Chief and the Governor General, and from the semi-independent position which the Commander-in-Chief was able to take up under the supposed support of the Horse Guards. This was the sort of tone used by his staff—"I know nothing about the Governor General and his Military Secretary; the only authority I know is the Horse Guards. I see nothing in my instructions except the Horse Guards." That was the sort of tone that was kept up; and the existence of this over-grown, inordinately powerful office was a great embarrassment, no doubt about it whatever; moreover, the Commander-in-Chief was so situated that he could not properly perform his duties.

838. Do you recollect whether formerly the arrangements for the general staff of the army were kept very much in the hands of the Governor General, who, not merely in form but in substance, regulated the general staff of the army till recent times?

Yes; that is true. I remember that in Lord William Bentinck's time, the action of the civil Government upon the administration of the army was much closer and more searching than it is now. In the course of years the Commander-in-Chief has acquired an independence quite beyond former experience.

839. That would probably arise from the greater proportionate power of the European troops in India, as compared with the native army?

Yes; and from the necessity of his constant absence. That is one great objection to the appointment: the Commander-in-Chief is divided between two duties, both of which are equally necessary, but both of which it is impossible for him to perform. On the one hand, he ought to be always on the move, inspecting his force from Assam to Peshawur; on the other, he ought always to be at head-quarters, attending the Council of the Governor General.

840. As the chief military adviser of the Governor General?

Yes, as the chief military adviser of the Governor General; and that is one great cause of the want of understanding and of the continual irritating correspondence which has gone on.

841. Do you think that in recent times a great deal of expenditure, as well of time as money, has resulted from the Commander-in-Chief of India exercising a much more minute control over the Commander-in-Chief of the Presidencies, so that the work in connection with the army is done twice over?

That has arisen of late years, because the control of the Government of India over the detailed administration of the armies of Madras and Bombay is a matter of recent years. There are three establishments doing treble works, that is, the Commander-in-Chief for the whole of India with the head-quarter staff in Bengal, and the Commander-in-Chief and head-quarter staff at Madras, and the Commander-in-Chief and head-quarter staff at Bombay, all doing very much the same work. And in consequence of the great inconvenience arising from the Commander-in-Chief's frequent absence on tours of inspection, it has been found necessary that the Governor General should have a second military adviser—the Military Member of Council—so that there is another person doing the same work at a high rate of salary, producing additional complication. Obviously the offices of Commander-in-Chief and Military Member of Council should be fused into one in the shape of a Minister of War, who should reside constantly at head-quarters, and should have no duties at all of personal inspection; and the duties of local command and personal inspection should be entirely relegated to the commanders of the five army corps. Those duties would then be done much more cheaply, and much better; they would be more constantly done; the responsibility would be fixed upon those who could do them, because they would always be upon the spot. The Minister of War would always be in personal communication with the Governor General and the other Members of Council, and he would hold a position similar to that of the Minister of War in France. Every season he might employ inspecting officers, selected by him for the occasion, to report upon the state of the different army corps, and the ordnance, commissariat, and other subsidiary establishments connected with them.

Extract from the answers given by SIR CHARLES E. TREVELYAN, K.C.B., *to the questions proposed by the Commissioners appointed (15th July 1858) to enquire into the organization of the Indian Army.—Pages 112 and 113.*

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3173. (Duke of Cambridge). You would, I have no doubt, also think it very desirable that he* should have the means of moving about and seeing the army personally? Certainly; he should have

* The Commander-in-Chief in India.

his head-quarters at Allahabad or Agra, or some central situation, and during the cold weather should make a tour of inspection of his command.

3174. (Sir Harry G. W. Smith).—As a Member of the Council, he would then be at a disadvantage, would he not? He would under those circumstances; but his functions as Commander-in-Chief are so much more important than those exercised by him as a Member of the Council, that the one should yield to the other.

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3194. (Viscount Melville).—With respect to your statement that you thought that the Commander-in-Chief's head-quarters should be in a somewhat central position, in which I quite agree; are you aware that more than one Governor General has opposed it, and has expressed his opinion that the greatest inconvenience was experienced from the Commander-in-Chief being absent from the seat of Government? Yes; I am aware that such objections have been made, and it is by no means a one-sided question. The Commander-in-Chief has at present two functions, one as a Member of the Government, the other as Commander-in-Chief. I consider that his functions as Commander-in-Chief greatly preponderate in public importance, and that every other consideration should be postponed to their proper performance.

Note by His Excellency General SIR W. R. MANSFIELD, K.C.B., G.C.S.I., *Commander-in-Chief in India (afterwards Lord Sandhurst) being a "Proposal for the re-arrangement of the Military Administration of India," dated 3rd August 1869.*

If it be admitted that a serious economy in the military estimates of India is impossible, without an administrative and a military concentration of the power now divided between three Governments and the three Commanders-in-Chief, the details of the reform would be somewhat after the following manner with reference to administration:—

The native armies of Madras and Bombay would remain local, and be administered as respects the sepoys by their respective Governments, just as is now the case with their police. The nominations of the British officers would follow according to the system adopted and hereafter described.

The Ordnance Department should be one for all India, with an Inspector General for India, and one deputy for each presidency, the correspondence on account of ordnance questions ceasing entirely between the departments and local Governments.

Military public works should be arranged for in like manner under the Inspector General of Military Works, correspondence on these subjects not being initiated by local Governments, the practice of the Governments forming the Presidency of Bengal being adopted in Madras and Bombay.

The commissariat of the three presidencies should come under the control of one Commissary General, the minor presidencies being circles to be superintended by deputies, outlying portions reporting direct to the Commissary General, such as Sindh and Burmah.

The further consequences would be that the separate systems of account and control for the minor Presidencies, with all their expensive establishments, would be abolished. There would be but one office of control for all India.

The duties of the local Military Departments of Madras and Bombay would thus sink almost to nothing. An officer in each presidency might at the same time be the Secretary to Government and the executive chief of the local army for clothing, organization, &c., their discipline being superintended, as heretofore, by the general officers of divisions and districts.

The three staff corps should be soldered into one, the lists being kept by the Government of India. With regard to the principle of promotion in these corps, this would not cause supersession to individuals.

It will thus be seen that the duties of the Military Department of the Government of India would be added to, while development in other ways will follow as a consequence of the military changes which it will be necessary to suggest.

Thus, many of the questions which now come to the several Commanders-in-Chief, either for opinion or for decision and execution, would have to be considered as administrative solely, and, as in England under the War Office, would be disposed of by the Military Department in the early as well as the last stage of their consideration.

I allude to ordnance, cantonment law, and regulations, cantonment property, the Commissariat and Clothing Departments, the finance of the army, military public works, the Barrack Department, the Medical Department, education, &c., &c. In all these subjects of administrative character the several Commanders-in-Chief are now primarily consulted, and in many of them they have a large share of the direct administration, power and responsibility being thus divided, as it were, between the Government and the executive military authorities, an advantage being on the side of the latter, owing to their immense knowledge of detail as gained in the daily practice of executive and positive administration.

It would be necessary to dispense with all initiative questions on these matters to the military commanders, who, as in England, would fall back to military command proper without having a voice in administration, the present Military Department becoming a War Department with numerous sub-departments of an executive character, *viz.*, ordnance, commissariat, finance, a sub-department to represent what the Quarter Master General now is to the Commander-in-Chief to take charge of cantonments, &c. It would be convenient to change the title of the Military Department of the Supreme Government to that of the War Department of India.

It would seem that, whatever the military arrangement, we have in the foregoing sketch the basis of what cannot be dispensed with in the matter affecting the administration of the army as distinguished from command.

The military command may be disposed of in two ways. The one to which I have myself inclined is that the head of the War Department should be a Member of Council, with the title of Minister of War for India, who should be nominated by the cabinet, as is now seen in the case of the legal and financial members.

This officer, having high military rank after the continental fashion, while being thoroughly and nominally a Member of the Government of India, would have under him a military secretary to be nominated by the Governor General in Council, and would carry out the correspondence with the Horse Guards, now executed by the Commander-in-Chief in India. It would be for him to arrange for the relief of troops in the several presidencies, and for marches beyond the limits of commands as defined below. He would finally pass all appointments and promotions, excepting such as might be ruled to require the affirmation of the Governor General in Council according to existing practice.

The restrictions now lying on the several Commanders-in-Chief should in this matter be continued on the Minister of War, in order to preserve the full power of the Governor General in Council, with reference to all important appointments on the staff, departments, &c., &c., as heretofore.

The confirmation of general courts-martial might be disposed of by the Governor General at the suggestion of the Minister of War, on the advice of the Judge Advocate General, who would become a functionary of Government, according to the practice we see in England, where all courts-martial are confirmed by the Queen.

The military command might then be arranged in five *corps d'armée*, to consist of—

(1.) Madras.
(2.) Bombay, including Central Provinces, south of Nerbudda.
(3.) Government of Punjab and Sindh.
(4.) Oudh and Government of North-Western Provinces, Malwa, and Rajpootana and Central Provinces, north of Nerbudda.
(5.) Government of Bengal and Burmah.

The *corps d'armée* to be commanded by Lieutenant-Generals, their head-quarters staff consisting of one Deputy Adjutant General, one Deputy Quarter Master General, one Deputy Judge Advocate General; their duties to be of a military character only, all administrative questions being disposed of by the War Department, as above said, and general courts-martial being sent for approval direct to the Judge Advocate Genral.

In this manner would the three Commanders-in-Chief disappear from Council, and the three considerable sets of head-quarters would be abolished, their military duties being divided between those of the five corps, and the administrative functions being altogether relegated to the War Department of the Government.

The personal staff of the Lieutenant-Generals should be restricted to two officers respectively, one of whom might be called Assistant Military Secretary, the title known in the British Army for the Military Secretaries in Malta, Gibraltar, &c., &c.

If such arrangements were made, all the outlying forces now under separate governments should take their place in the several *corps d'armée*. Thus the Punjab force would be under the Lieutenant-General in the Punjab in addition to the other troops. The Central India Horse, the Deolee Regiment, &c., would come under the Lieutenant-General Commanding in the North-West, and so forth.

It will thus be seen that according to this plan, the armies of India would be placed on the footing of those of France, the Governor General in Council being relatively towards the former what the Emperor is to the latter.

An Act of Parliament and alterations in the Mutiny Act and Articles of War would be required to give effect to such changes. The military* element in the Council of the Governor General would be diminished, while the administrative power of the new War Department under the Governor General would be greatly developed as compared with the existing Military Department.

The Lieutenant-Generals commanding corps would not be admitted to any argument affecting finance and questions of administration unless their opinions were specially asked.

The second plan which might be adopted would be rather cheaper in point of establishment, and it would be less new to English notions, both in India and at Home. It would be as follows:—

To develope to a certain extent the War Department as above sketched, but not so much, the Military Member retaining his present title only.

The minor Commanders-in-Chief with their head-quarters staff &c., &c., to be abolished, all purely administrative questions being taken by the War Department. The Commander-in-Chief in India might perform the executive military command for all India, in correspondence with the divisional and district commanders, in what are now distinguished as three Commanders-in-Chief.

In these days of railways and telegraphs, this is quite possible with respect to despatch in correspondence, and would probably not call for addition to the Adjutant General's and Quarter-master General's offices as so much of their present administrative work would be disposed of by Government without reference to them.

The Commander-in-Chief in India, while remaining an Extraordinary Member of Council, should not be required to be with the Council at any time unless it fitted in with his military duties, *i. e.*, during the hot season.

The whole of the cold season might then be devoted every year to tours of inspections to the different parts of India, and to consolidating acquaintance with the several Governments and provinces.

The local armies of Madras and Bombay would be disposed of as shown in a previous paragraph, but would come under the Commander-in-Chief in India for purposes of discipline.

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* This is what the late Governor General, Lord Lawrence, objected to. His notion was to "pit," as it were, the Commander-in-Chief in India against the Military Member of Council, and he believed that the Governor General thus gained in power, authority, and information, by moderating between the two.

The only change of the law required for such an alteration would be the taking out of Council the existing Commanders-in-Chief in the minor presidencies. Both by his warrant and the Mutiny Act, the Commander-in-Chief in India is amply provided in law for such reform.

Assuming the War Department to take over altogether the administrative duties above referred to, a purely military Commander-in-Chief in India would have the time required for the supervision of discipline, &c., &c., in the larger area suggested for him, and he would probably see all the troops and military stations much more frequently than was the case under the old *régime*.

I believe that till I went to Bombay, it was never the custom of the Commander-in-Chief in that presidency to make real tours of inspection, and I have seen the same thing alleged of Madras with the exception of the commands exercised by Sir Hope Grant and Sir Patrick Grant.

Opinion of Lord Lawrence and others (Report from the Political and Military Committee of India Office, dated the 30th June 1859).—Pages 4, 12 and 13.

Paragraph 7.—The Committee wish the peculiarly responsible position of Her Majesty's Viceroy in India to be prominently borne in mind. The normal condition of our rule in that country is, and must remain, that of millions of Asiatics controlled by a small force at the disposal of one will—the will of Her Majesty's Viceroy. In times of danger to that distant empire, it is impossible to predict how much may hang upon the ability, the energy, the authority, and the influence of the Governor General. Whether called so or not, he is, from the very necessity of his position, Captain-General, and, under God, everything depends upon the manner in which he wields the forces at his disposal, and on those forces regarding him as the judge of their conduct, the rewarder of their merit and fidelity—in a word, as the representative of Her Majesty. Can it be to the advantage of the Crown to weaken materially the power and influence of Her Majesty's Viceroy? The Committee think it is not. They trust that such a burst of revolt and of military anarchy as that of 1857 may never recur; but the future will have its sudden trials, and the man who must cope with them should have his hands strengthened and not weakened. This will not be done by totally dissevering the European from the native forces; nor by amalgamating the former with the line, thus diminishing their dependence on the Governor General. The history of India abundantly proves that, even under the old system, collisions between the Governor General and the Commander-in-Chief have occurred, to the great detriment of the public interest. The chances of such collisions would be materially increased by the local Commander-in-Chief mainly looking to the Horse Guards, as would be the case under the system advocated by the majority of the commission. The Committee anticipate no advantage, but much probable confusion, from the intervention of an independent and irresponsible control, which could not fail to be prejudicial to the authority of the Governor General over the forces, and must lower his position in the eyes of the chiefs and people of India.

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Paragraph 36.—With regard to the 8th recommendation, the Committee are of opinion that Her Majesty's Viceroy should henceforward be, by name and commission as he now is in reality, Captain-General of the Forces in India, and that there should be general officers commanding under the Captain-General, the several armies of Bengal, Madras, and Bombay. The Committee would not designate these officers Commanders-in-Chief, but commanders of forces, neither would they have them *ex-officio* Members of Council. A seat in Council involves remaining at the presidency town, and militates against that active supervision which makes a commander of the forces acquainted with the officers and troops under his control, and prevents both from falling into habits of supineness and of relaxed discipline. There is an absolute necessity for the subordination of the generals commanding the forces, and for the absence of all conflict; it is politic, therefore, that the paramount authority and responsibility of Her Majesty's Viceroy in India be placed above all question, and subject to no control, direct or indirect, but that of Her Majesty's Secretary of State for India in Council. Under the Captain-General there should be a Minister of War, by whom all the administrative details of the armies in India should be carried on. The duties now performed by the Commander-in-Chief should be divided between the Minister of War and commanders of forces for each province. It is a question with the Committee, whether there should not be separate commanders of the forces for the Punjab, for the North-West Provinces, and for Bengal, with two, perhaps, for Bombay, including Scinde, and two for Madras: provided such an arrangement can be carried into effect without any increase of expenditure which the committee believe by the remodelling of divisional commands, and by recasting the general staff to be practicable. These commanders of the forces would carry on all the executive duties of the Commanders-in-Chief within their own circles. They would, during the proper season, make a tour through their respective provinces, and make themselves thoroughly accquainted with the resources and physical features of the country, and with the officers and troops under their command.

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Paragraph 38.—The Committee are aware that they leave untouched many most important questions: among these they would instance pensions of native armies; system of double staffs; the appointment of chiefs of the staff; system of two-fold medical staffs and services. These and a variety of other matters would admit of much remark; but the Committee consider that many of these subjects can best be dealt with either in India by the Governor General in Council, or in England by the Secretary of State, after the question of the reorganization of the Indian armies has been decided; they regret the time that has already elapsed without any definite conclusion upon the broad features of army reorganization; and they are averse from clogging immediate action by any enlargement of the sphere of disquisition. They prefer, therefore, limiting themselves to such general remarks as arise from the perusal of the papers before them, and would seem sufficient to guide the Government of India in carrying out the views of Her Majesty's Government, without too much restricting the discretion which it will be imperative upon Her Majesty's Viceroy in Council to exercise. He will

have a most arduous task to perform, and they would fetter his judgment as little as possible in the execution of a duty which brooks no further delay.

J. P. WILLOUGHBY.
JOHN LAWRENCE.
R. J. H. VIVIAN.
H. M. DURAND.
W. J. EASTWICK.

Copy of letters from COLONEL H. M. DURAND, C.B., *to* SIR CHARLES WOOD, *dated the 29th November 1859 and 1st March 1860.*

Dated the 29th November 1859.

Except that the Governor General is precluded from making alterations to imperial statutes relating to India, from promulgating laws affecting the prerogatives of the Crown or the allegiance of British subjects, he may be said to be vested with absolute authority over the four subordinate Governments of British India, besides the Punjab, Scinde, Oude, the provinces ceded by the Nizam and by Scindia, the Arracan, Burmese, and Tenasserim provinces, the Straits Settlements, and practically over all the Native States having treaties of subordinate alliance with the British Government.

Under the late Act 21 and 22 Vict., the powers of Her Majesty's Viceroy and Governor General in Council remain unaltered, and, although a reference was made in August 1858 by Her Majesty's General Commanding-in-Chief and by Her Majesty's Secretary at War upon the scope of this enactment with reference to Her Majesty's Indian armies, the opinion of the law officers was "that the control of the whole military as well as civil Government of India, which was vested in the Governor General in Council by the Act of 1833 (section 39), is undisturbed by the recent Act," and that it was not competent to the Secretary of State in Council, or to any other authority, to transfer or delegate to the General Commanding-in-Chief any powers over Her Majesty's Indian armies not possessed by him prior to the 21 and 22 Vict., thus clearly laying down that there was no indication of any purpose on the part of the Legislature in that Act to depart from the main features of the policy under which the empire of India was added to the British Crown.

The leading principles of that policy have been, that India could only be well governed in India, and that, with that view, the amplest powers must be vested in the supreme, and very great powers, in the subordinate, local administrations; that the Supreme Government should be held primarily responsible for the healthy condition of the finances; and that, both with reference to the efficiency of the executive and to the financial control for which it was answerable, the principal part of the army maintained out of the revenues of India should be, as to its services, at the disposal of the local Government, and as to its financial administration, under the immediate control of the Government of India.

In furtherance of these principles, and because military expenditure constitutes, in a great conquest, the chief burthen of the State, the Governor General in Council primarily, and the Governors subordinately, have been made responsible for the efficient and economic administration of the three distinct forces, into which a far sighted policy judged it expedient to divide the Indian armies. Accordingly, the Home authorities, whatever their designation, have hitherto uniformly cast upon the Governor General in Council and the Governors in Council the onerous duty of framing the whole machinery of those separate forces, rightly deciding that, if the financial arrangements were under one authority, and the executive under another, collision must arise, and financial control be either in a state of chronic conflict, if properly exercised, or else degenerate into a perfunctory and fallacious show of duty.

In harmony with the foregoing broad principles of general policy, the control exercised by the Home authorities has been confirmatory rather than dictatorial.

Under these circumstances, it is incumbent upon those who advocate placing the Indian armies under the Horse Guards, to prove that this can be done without seriously impairing the position and authority of Her Majesty's Viceroy in India, and without the complete subversion of the principles upon which, up to a very late date, the Imperial Parliament has hitherto deliberately (the subject being repeatedly before it) seen fit to hold India. Parliament may have been wrong, but it may expect to be shown where lay its error, as also why, if the experience of the India House and Board of Control have not been thought heretofore to warrant much interference with the necessarily large powers of the Governor General of India in such matters, the direct and active intervention of a new authority, one it may be, of considerable weight in England, but avowedly very inadequately advised as regards India should now be found requisite.

The nice distinctions of a constitutional government are contradictory puzzles in the East. There, ideas retain all the simplicity which ages of autocratic power have impressed upon the character of Asiatic nations. The Governor General is now regarded by the chiefs and people of India as being really, not nominally, at the head of three great armies, reinforced according to circumstances by a contingent of Her Majesty's line, a fourth great and purely European army, a reserve of indefinite magnitude; they know, and the officers and men know, that the strength, organization, and discipline of the three Indian armies, and the welfare and advancement of every soul in them, depend upon the Governor General It will be difficult to the eastern mind, whatever it may be to the English mind, to comprehend how this relation between the Indian armies and the Governor General can cease, without his power and influence being diminished; and it will be hard satisfactorily to explain why it should happen that, as soon as a Governor General becomes Her Majesty's Viceroy and the immediate representative of the Crown, instead of the fact adding to the real power and dignity of his position, as India was taught to anticipate, it strips him of authority, and renders him unworthy of being treated with the same confidence, and of enjoying the same power, as when the delegate of the East India

Company. From the Dardanelles to Japan the fixed idea is, that he who rules and manages the army, rules the State, and that to lose the sway of the army is to drop the reins of empire. Nowhere more than in India is it ingrained in the minds of the people that the sword and the sceptre are synonymous terms; it is the one article of faith upon which 200,000,000 of people agree, and it will be found as difficult to eradicate as any other dogma of the Hindoo, Buddhist, or Moslem hordes under the British rule. As the object must ever be to govern these millions in the manner in which all wise governments seek to govern, *i. e.*, in harmony with the normal peculiarities of the people, a glance at the military functions of the Governor General will be useful, for it will show that the millions are not wrong in ascribing to him real, and not nominal, military authority.

The Governor General regulates the military occupation of India. He increases the military establishments on emergency, at his own discretion; he reduces them likewise at his own discretion. He decides upon the distribution of troops, and assigns this or that territory to this or that army, as may seem to him advisable. The constitution of divisional and brigade commands rests with him. He also rules the proportion in which they are to be held by officers of the line, or of the Indian armies.

He determines the composition of forces taking the field, employing the three armies conjointly or separately, as may seem to himself expedient with reference to the nature of the service, the exigencies of the State, and the character of the expedition.

He selects officers for the command of forces in the field, whether serving within or beyond the frontier. He invests them, when it seems advisable, with the chief political, as well as the chief military, authority.

He exercises his discretion in the grant of batta and allowances to the troops.

He recommends to the Crown for rank, honours, and military insignia.

He regulates all questions affecting the officers and men of the Indian armies, whether European or native.

With respect to the European officers, these questions are such as have reference to—

- Promotion.
- Pay and allowances.
- Leave in and out of India.
- Retirement.
- Pensions.
- Military and Orphan Funds.
- Lord Clive's Fund
- Commands, whether of divisions, brigades, or regiments.
- Staff appointments.
- Qualifications for ditto.
- Number of officers that can be absent from regimental duty.
- Commissariat Department.
- Ordnance Department.
- Pay and Audit Department.
- Stud and Remount Department.
- Medical Department.
- Gun Foundry Department.
- Powder Department.
- Gun Carriage Department.
- Military Police Department.
- Barrack Department.

With respect to the men, the Governor-General regulates the employment of privates and non-commissioned officers in all the above-named departments, besides in the Public Works Department; also their—

- Promotion to warrants and commissions.
- Clothing.
- Barracks.
- Gardens.
- Educational establishments, such as Roorkee, Lawrence Asylum, &c.
- Claims on Lord Clive's Fund.
- Hill Sanataria.
- Pensions of all grades and departments.
- Invaliding.

Everything connected with the native troops, regulars or irregulars, rests with the Governor General.

Everything having reference to the officering, organization, and employment of contingents and of subsidiary forces, in fulfilment of treaty obligations, rests with the Governor General.

Parliament entrusts to him the framing of articles of war for the native troops, and he has to make rules for maintaining the discipline of contingents and stipendiary forces in the territories of native States, as also for the militarily-organized police, now so numerous.

The European officers being the life-blood of the three services, and their importance equal, whether attached to European or to native troops, the Governor General has hitherto, upon principle, made no difference in the employment of British officers, whether attached to the European or Native branches of the Indian armies.

Whatever the demur of a Commander-in-Chief to his purely subordinate position, a feeling which has led more than once to official conflict with a Governor General, practically the latter has always been Captain-General; and, if England is to retain India with a secure grasp, no door should be opened to unseemly and derogatory conflicts of authority.

The advocates for placing the Indian armies, wholly or in part, under the Horse Guards (which of necessity involves direct reference to that authority by the Commander-in-Chief in India) have to explain, with regard to the multiplicity of military affairs dependent on the Governor General, upon what points there might not be collisions. For it must be remembered that, under such a change of system, there would constantly be correspondence upon the same subjects, and with a view to instructions and orders, through two different channels; and that, not alone at one, but in all three presidencies, Commanders-in-Chief in India would be communicating direct with the Horse Guards, and Governors General and Governors would be doing the same with Her Majesty's Secretary of State. In my opinion, no

human foresight can predict the multitude of subjects upon which collision would arise. Differences between Commanders-in-Chief and Governors have been, as it is, sufficiently frequent, serious, and prejudicial to the public service; but the frequency of such must be increased beyond all powers of anticipatory calculation, by the opening of multiplied channels of correspondence with a new co-ordinate, if not in some respect superior authority.

It would not be easy for any military state in Europe to make a sudden and a radical change in the organization of its army, and it may be doubted, if such radical change involved the transfer of authority to other hands, whether the rulers of those countries would accede to the assertion that their position and influence were not materially weakened. Their armies, however, are compaatively homogeneous, and their organization simple; whereas the Indian armies are complicated structures, the growth of a century of conquests, and are adapted to the requirements of an empire held by a precarious tenure. The management of the complex machinery centres necessarily in the hands of the one man upon whom so much depends. Those who advocate taking this out of his hands, should show how they can dislocate parts, or subvert the whole, without causing collision, confusion, and the degradation in the opinion of the chiefs and people of India of Her Majesty's Viceroy, to say nothing of lowering him in the eyes of the officers, European and native, of the Indian armies.

I am strongly of opinion that late events in India, instead of affording any argument for the reduction of the power and authority of Her Majesty's Viceroy, render it more than ever imperative that his hands be strengthened, and that, as the representative of the Crown, the reality, and not the empty name, be conferred upon him.

I have here confined myself to one single aspect of the question now pending for two and a half years, and upon which, more than a year ago, I had the honour of laying before Her Majesty's Government the deliberate opinions of Her Majesty's Viceroy. I must be permitted to express my great regret that a subject of such paramount importance both to England and to India has so long remained unsettled, being not even as yet laid before the Council of India, and to express the hope that, if, after such serious delay, organic changes be contemplated adverse to the policy by which India has been won and kept, all such measures be upon the responsibility and under the sanction of the Houses of Parliament.

Dated the 1st March 1860.

I have been long and anxiously considering the question on which you wished to have a memorandum. Had I concurred in the radical changes which you assume and prescribe as the basis of the question, the solution might, perhaps, have appeared easier; for the difficulty of treating the subject is greatly enhanced when the tendency of these organic changes amounts to a positive conviction in my own mind of their fatal impolicy. I was among the first to advocate that the Indian armies should become royal armies, and have before me a memorandum written in March 1855, and at the request of Mr. Vernon Smith, in which I strongly urged the transfer to the Crown, which subsequently took place; but only the transfer, not the amalgamation or fusion of the armies, the dangers and inconveniences of attempting to place the Indian armies under the Horse Guards being as palpable then as they are now to my perceptions. Though it was written arguing stoutly in favour of the transfer to the Crown, I find that it is in strict harmony with the views contained in my letters of the 5th of August, 24th of October, and 29th of November 1859. The circumstance may appear to you trivial; but it at any rate is a proof that, when strongly advocating a measure opposed at the time by Parliament and the Court of Directors, the points necessary to guard with respect to the welfare of India, the interests of England, and the equitable treatment of the Indian armies, were as clearly present to my mind as they are now when the transfer has been effected, and the question is no longer transfer, but fusion with the line.

With such convictions, it is of course not easy to place the mind in the position of one of a contrary set of opinions. Those persons holding amalgamationist views, as Outram designates them, are bound to harmonise them with the undiminished power and authority of the Governor General, and with the efficiency of the service, and economy. I must say that I have seen no attempt to do so which could stand the test of scrutiny; and upon the one subject you wished me to provide for, *viz.*, the maintenance of the influence and authority of the Governor General, though the following may to some extent be regarded as a compensatory, remedial measure, it is open to very serious objections.

Let it be supposed that the amalgamation of the Indian armies with the line takes place, for it is futile to separate the European from the native portions of those armies, as they are closely linked together by the European officer element; that, as a consequence, the armies of England and of India become one army, with the General Commanding-in-Chief in England as the head of the army.

Practically, the result upon the troops in military occupation of India would be that the minor presidencies and the Lieutenant-Governorships into which the Bengal Presidency is divided would become, or might be considered as, so many *corps d'armées*.

On this point, I must explain that the Commanders-in-Chief of the Madras and Bombay Presidencies would necessarily, under the supposed change, cease to have the full authority over the local European troops which they now have; and that, as these troops would be of the line, the general officers commanding in Madras and Bombay could only exercise like functions and authority, as they now do, over officers and men of the line regiments, *i.e.*, subordinate to the authority of the Commander-in-Chief in India. They would, therefore, have no greater powers than generals of division. Such a condition would be incompatible with their remaining Members of the Madras and Bombay Councils; for they are liable, as Members of Council, to have to approve, or disapprove, of measures brought before the Governments of Bombay and Madras by their superior, the Commander-in-Chief in India. An Act modifying former Acts of Parliament must, therefore, deal with this organic change.

Clearly, therefore, the general commanding in the presidencies of Madras and Bombay might be regarded as at the head of *corps d'armées*, but not as Commander-in-Chief; and the Act would have

to transfer to whoever was Commander-in-Chief in India the powers hitherto exercised by the Commanders-in-Chief of Madras and Bombay.

With this surcharge of work thrown upon him, the Commander-in-Chief in India would require a Bombay and Madras staff at head quarters. This would also be necessary with regard to the differences which exist on various points in the organization and systems of the native troops at those presidencies. It would be essential for avoiding insupportable delays in ordinary matters of leave, courts-martial, and the multifarious references inseparable from the administration of large bodies of troops. Even thus aided, the delays at head-quarters in the transaction of ordinary current business would (it may be feared) prove painfully inconvenient. Certainly it would render it inexpedient that the Commander-in-Chief in India should remain unrelieved of the duties which generals commanding the *corps d'armées* in the Punjab and Scinde, in the North-West Provinces and Oude, and in Bengal, might well take.

The question remains as to the Commander-in-Chief in India.

The control of the native troops has hitherto been entrusted by Parliament to the Government in India; the submission of the Commanders-in-Chief of the minor presidencies to the Commander-in-Chief in India would alter their relations to their own governments, and would necessarily, as far as general administration of the Indian armies is concerned, centralise authority in the Commander-in-Chief of India, and eliminate from the Madras and Bombay Councils the *quasi-* representatives of those armies. The centralisation of control in the hands of the Commander-in-Chief in India would thus have the effect of imposing a heavier responsibility upon the Governor General, as the only authority practically capable of interposing in supervision of the military administration of the native armies.

Again, the question presents itself, who should be the Commander-in-Chief in India under such circumstances? What is likely to work best with reference to such conditions in India and in England? The answer seems prescribed by the mere statement of a few of the main consequences of the supposed radical change from which the start was made:—

1. The Governor General must be Captain-General of Her Majesty's forces in India.
2. The generals commanding the *corps d'armées* of Bengal (Pegu and Tenasserim, Bengal Proper), North-West Provinces (Oude and North-West Provinces), Punjab and Scinde, Bombay, Madras, must report to, and only correspond with, the Captain-General.
3. The Captain-General must report to and correspond with Her Majesty's Secretary of State for India, with whom it would rest to communicate with the General Commanding-in-Chief in England.
4. The Captain-General should have the selection of all officers for the command of *corps d'armées*, of divisions and of brigades, none of these commands to be at the disposal of the Home authorities.
5. The Captain-General should have the power of conferring the temporary rank of brigadier, of major-general, and even of lieutenant-general; and such rank should be turned into substantive rank after a defined period of service in India, if the officer at the close of the period was recommended to Her Majesty for the rank.
6. The Captain-General to have the power of removing officers from the command of regiments, and of selecting officers from regiments under his command to fill their places.
7. All appointments to the staff of the army, in every department, to rest with the Captain-General, it being at his discretion to consult, or not, the generals commanding the *corps d'armées*.
8. A regiment once brought upon the strength of the Indian establishment, all applications for leave, for exchange, for purchase, to be submitted to the Captain-General.
9. The relief of regiments borne upon the Indian establishment to be made in such order as seemed advisable to the Captain-General.
10. The Captain-General to have an Adjutant General and a Quartermaster General, each aided by Deputy Adjutants General and Deputy Quartermasters General from the several *corps d'armées*; the Adjutant General communicating with the Military Secretary to the Government of India, so as to bring under the view of the Council of the Governor General the military affairs of the empire, as at present done for Bengal only; for it is not advisable that the commission of Captain-General should in any degree alter the position of the Governor General in Council, or derogate from, or diminish the control of the Council, still less that it should weaken the authority of Her Majesty's Secretary of State for India.

APPENDIX XXII.

Mode of Selection of officers for Staff appointments in India.

Nos. 430 to 435, dated 19th September 1879.

From—The Secretary, Army Organization Commission,

To—The Adjutant General in India, Quarter Master General in India, Adjutant General, Madras, Quarter Master General, Madras, Adjutant General, Bombay, and Quarter Master General, Bombay.

The Army Organization Commission are desirous of being informed of the method obtaining in the three presidential armies in regard to the selection of officers for the general, divisional, brigade, and station staff of the army.

2. I am therefore directed to beg that, under His Excellency's orders, the Commission may be favoured with information on this head, and with any practical suggestions which may occur to you in regard to the training and selection of the staff of the army in India.

3. A similar enquiry has been made of the other presidencies.

No. 4175B., dated Simla, 29th October 1879.

From—The Adjutant General in India,

To—The Secretary to the Army Commission, Simla.

In reply to your letter marginally noted, I have now the honor to forward herewith, in some detail, the information required by the Army Commission in regard to the selection of officers for the general, divisional, brigade, and station staff of the army.

No 498, dated 25th September 1879.

2. As a general rule all commands and appointments are divided equally between the officers of the local and British forces in India, and I am of opinion that the practice should be maintained, as there can be no question of the advantage to the public service to have officers in command and on the staff to whom the country is familiar, and who understand the feelings, interests, and customs of our mixed armies.

3. The Commission is perhaps aware that it has been finally decided between the Home and Indian Governments, that henceforth divisional commands can be held only by Major Generals, and brigade commands by selected Colonels.

4. I may also mention that it is now under consideration to throw open to the service at large, at Home or abroad, in the case of specially qualified officers, such appointments as Deputy Quarter Master General, Head of Intelligence Department, and the Deputy or Assistant Adjutant General, Royal Artillery.

5. On the whole it is preferable that officers be not appointed to a general departmental list as is now the case in the Adjutant General's Department, but be nominated to special appointments as opportunities may offer in separate commands.

6. Should these papers be printed by the Army Commission, I am directed to request that twenty copies may be furnished to this office.

General Staff.

Selection is confined to officers of the British and Indian armies serving in India.

Adjutant General and Quarter Master General.—Excepting appointments of Adjutant General and Quarter Master General in India, which are open to the service at large in or out of India, and are subject to approval of the Home authorities, whether acting or permanent. The rank of Colonel is a necessary qualification, also five years' service in India and P. H. Examination. These appointments confer the rank of Major-General. In the Adjutant General's Department, where the head of it belongs to the British service, the Deputy is usually an officer of the Indian army, and *vice versâ*.

Assistants must be duly qualified field officers. A Captain of experience, who has passed the Staff College or Garrison Course tests, may be appointed exceptionally.

Deputy Assistants and Brigade Majors, as a rule, must not be under the rank of Captain, and must have passed the Staff College or Garrison Course tests, except in the case of certain Royal Engineer officers and of officers of proved ability in the field.

Station Staff.—These appointments are open to all officers eligible for staff employ.

Tenure is two years and there is no seconding. General leave or furlough involves vacation of appointment. Officers appointed from native regiments are retained on rolls of corps, as if present.

Qualification.—No officer can hold a staff appointment until he has been four years in the service, and has passed the native language tests.

Appointment rests with Government. The Commander-in-Chief nominates.

Tenure.—All appointments on the general staff (except station staff) may be held for five years.

Seconding.—Officers of native regiments appointed to the general staff are seconded in their corps, hold position therein with right to promotion, and return to regimental appointment on expiration of staff tour.

Artillery.—Deputy Adjutant General is a five-years appointment for a regimental Lieutenant-Colonel who has served three years in India.

Divisional Commands.

Number of Commands.—There are six commands in Bengal, *viz.*, Allahabad, Oude, Meerut, Sirhind, Lahore, Rawul Pindi.

Allotment and tenure.—Three for British and three for Indian army. The tenure is five years, reckoning from date full allowances are drawn, and this period is extended only in special cases. Second tour not allowed.

Indian list.—In selection for these commands, officers of the old Indian artillery and Engineers and European regiments are retained on Indian list. Officers of Artillery and Royal Engineers whose commissions as Major-Generals were antedated to the 6th March 1868, are for selection for divisional commands, considered with officers of the Indian army according to the rank they respectively held as Colonels.

How appointed.—British officers are appointed by Horse Guards. Indian officers are nominated by local Commanders-in-Chief, but actual appointment rests with Indian Government.

Vacancy how filled and appointment of a Colonel.—A vacancy (temporary or permanent) is filled up by an officer of the service in which it occurs. If British, and no general officer of that service is available on the spot, a Colonel in the presidency may be nominated, temporarily, by Commander-in-Chief and be appointed by Government with rank of Brigadier-General when necessary.

Similarly, an Indian Colonel may be appointed with temporary rank of Brigadier-General (when considered necessary) or local commission of Major-General; but such officer cannot revert subsequently to a brigade or regimental command.

Division when declared vacant.—A divisional command becomes vacant under the circumstances described in Bengal Army Regulations, paragraph 60. But an officer promoted to rank of Lieutenant General before 31st March, and the *London Gazette* notifying promotion is not received in India until after that date, retains command until the order republishing his promotion from *London Gazette* reaches his station.

Temporary command by senior officer.—And the temporary command is assumed by senior officer in division. If the senior is a Brigadier-General, he retains also his brigade command. But when a Brigadier-General is *appointed* temporarily to divisional staff, he relinquishes his brigade command for the time.

Selection of Indian officers, and Health.—General officers (*i. e.*, Major-Generals only) of the Indian list are selected according to ability and service, whether they are in Europe or India; seniority alone gives no right to such command. The most efficient officer is selected. But an officer when selected for such an important command should be in good health, and not likely to require sick leave.

The Commander-in-Chief cannot offer a command to an officer, or communicate with him on the subject, until Government has first approved.

Refusal of command.—Divisional command is not open to a Colonel who once elects to retain a staff appointment which he could not hold as Major-General. The same rule applies to a Brigadier-General who waives his right to a divisional command. It also applies to a Major-General holding a staff appointment who declines a divisional command.

Arrangements for command during privilege leave.—A divisional commander may take privilege leave out of his division. He may take it also within the limits of his division and retain his command at same time. Simla not within limits of Sirhind Division for this purpose.

During such privilege leave the following arrangements obtain:—

If the General retains command, the senior officer present at head quarter station of division takes command of such station, without remuneration.

If the General does not retain his command, it then devolves on the next senior officer in division without remuneration, and should he not be present at division head quarters, he remains at and commands from his own station unless otherwise directed, the Assistant Adjutant General or Brigade-Major joining him there, and the rest of the staff remaining at usual division head quarters.

If there is no suitable officer in the division to command during the General's absence on privilege leave beyond its limits, the General may, with the sanction of the Commander-in-Chief and Government, arrange for the command being taken by a qualified unemployed general officer of the Indian service. No necessity to notify appointment of such officer in General Orders, unless the privilege leave is exceeded and general leave in extension obtained.

Above to entail no expense on Government.—Such arrangements consequent on a General taking privilege leave, are to entail no expense on Government, and must be privately settled by the General before departure.

Divisional head-quarters.—Divisional commanders cannot have their permanent head-quarters in the hills. They must reside at and cannot leave their proper station, except on tours of inspection, without previous sanction.

Brigade Commands.

Number of commands.—There are six first class brigade or district commands in Bengal, *viz.*, Eastern Frontier, Gwalior, Peshawar, Presidency, Rohilcund, and Saugor District. These are not subordinate to any divisional commanders.

There are four second class brigades, *viz.*, Agra, Mooltan, Rawul Pindi, and Sialkote. These are subordinate to their divisional commanders.

Allotment.—Three first class and two second class for British and the others for Indian service or five of either service on the brigade staff. There may be more British than Indian in first class, and *vice versâ*.

Indian list.—Officers of old Indian Artillery, Engineers and European regiments retained on Indian list in selection for these commands.

British list.—An officer who joined a purchase regiment from Indian service comes on British list for brigade command.

Tenure.—Five years from date of entering on command. In other respects same as divisions, but on promotion to Major-General (which necessitates vacation) command is retained until arrival of successor, unless otherwise ordered. No second tour allowed, but period of command may be specially extended.

Punjab Frontier Force command.—Brigadier-Generals who have completed five years' tenure of command of the Punjab Frontier Force or the Hyderabad Contingent, are ineligible for appointment to an army brigade command, unless specially re-appointed.

Extension on re-appointment.—Re-appointment may be made in the case of an officer who vacated his command on account of sickness before he had completed his five years' service in first or second class command, or partly in both, counts alike in the five years. Period of acting command, even on

full allowances, does not count in the five years' tour. Time passed in travelling from one command to another, if transferred on public grounds, reckons in the five years without loss of allowances. The reverse is the case if transfer is made on private grounds.

Return to regimental command.—A Colonel (not being a General officer) or a Lieutenant-Colonel may revert to regimental after brigade command.

Brigade when vacant.—Same as divisional command and on promotion to Major-General.

Selection of Indian officers.—Same rule as in case of divisional commands.

British officers.—Every fourth vacancy is given to an Artillery Colonel. Selections are now made from the general list of Colonels of the British service wherever employed, who may have five years' service in India as a regimental field officer, of which at least a half should be in command of a battery or regiment, or as a field officer holding a staff appointment for a like period.

Rank of Brigadier General is given to officers selected for brigade commands, permanent or officiating.

Appointment.—In the case of British Colonels, the Commander-in-Chief nominates to Horse Guards for approval; in the case of Indian officers he recommends to the Indian Government who appoint.

From second to first class.—It is not incumbent on Commander-in-Chief, when a first class brigade is vacant, to give it to the senior Brigadier General of second class. In practice, the newly-appointed officer gets the vacancy.

Postings and transfers.—All postings and transfers are made by Commander-in-Chief, but transfer is not usually made unless in the interests of the public service.

Refusal of command.—A Colonel cannot decline a brigade command without prejudice to his succession to a division, nor retain preferential claim to subsequent brigade command.

Resignation of command is effected under paragraph 54, Bengal Army Regulations.

Station Commands.

Stations having a command allowance.—There are twelve stations not the head-quarters of divisions or brigades having a command allowance, *viz.*,—

	Rs.
Cawnpore, Delhi	400
Fyzabad	300
Ferozepore, Jullunder, Barrackpore	250
Dinapore, Jhelum, Nowshera, Benares, Jhansie, Saugor	200

And the allowance is given to the senior officer in actual command, whether he holds a regimental command or not. But a General staff officer becoming temporarily senior at a station command without remuneration.

A regimental staff officer, however, not being a commanding officer, succeeding to a temporary command of a district or station, draws command allowance of Rs. 400 a month, giving up his regimental staff appointment.

The allowance is retained during privilege leave, but is forfeited entirely during general leave. It is also forfeited if the officer is placed on any military duty which prevents exercise of command. But if put on temporary duty of a civil character having no pecuniary advantage, compensation for loss of command allowance is granted.

Appointment.—Officers are nominated by Commander-in-Chief.

Unemployed Colonels of the Indian service are generally selected; but no officer who is not considered thoroughly competent by General officers, is allowed to fall into command of a station, even for a single day.

Colonel's allowance.—A station command is vacated by an officer admitted to Colonel's allowance on the principles laid down in Standing Order No. 165 of 1867.

Small stations having no command allowance are commanded by senior combatant officers present (generally an officer commanding a regiment) without notification in orders, and unemployed field officers of the Indian service are not usually posted for general duty to such stations. This is to prevent the officer commanding a regiment being superseded in command of the station.

Hill stations other than depôts are commanded like those just mentioned, and no officers of the Indian service are sent there for general duty for reason above stated.

Hill depôts.—Tenure of a hill depôt command is two years. British officers hold these commands.

Fort Commands.

Forts on Peshawur Frontier.—Abozaie, Michnee, and Shubkuddur.

The command may be held for three years or longer, if expedient on public grounds, and with the sanction of Government.

General leave of any kind involves vacation of command.

Allowance for command is Rs. 150.

It may be drawn by commandant during his privilege leave.

Senior commandant to be stationed at Shubkuddur, in order to have control for combined defence.

The forts are held by detachments from native troops in Peshawur, under a European or native officer.

Officers not to cross border or go beyond fort boundaries without escort.

Command of frontier posts is confided to such officers only who are qualified by knowledge of the language, by temper, and by sympathy with the people among whom they serve.

Officers are selected and appointed by the Commander-in-Chief.

Fort Attock is garrisoned by British artillery and infantry and detachment native infantry.

The detachment native infantry is commanded by a European officer. A native officer can only hold command of the detachment in a case of unavoidable necessity.

There is an allowance of Rs. 150 for the officer actually in command. This allowance is not retainable during any save privilege leave.

To command and draw the allowance, an officer must have passed the lower standard.

If a specially appointed officer is in command, the tenure is two years, but he vacates on taking general leave.

Fort Chunar is garrisoned by the European Invalid Battalion and detachments European and Native Infantry.

There is a permanent commandant, who draws allowance of Rs. 200 for command of Fort and Invalid Battalion. He is a selected officer of the Indian service.

The appointment is held during the pleasure of the Commander-in-Chief, the incumbent vacating on proceeding on furlough.

Many State prisoners are confined in this Fort. They are taken into custody under orders or warrants received through Government.

There is an establishment of non-commissioned staff, including warders, &c.

The following forts have no command allowance. They are garrisoned as shown below, the senior officer commanding :—

Agra.—European and native troops from the cantonment. There is a military prison within the fort.

Allahabad.—European and native troops from cantonments.

Buxar has a Jemadar's guard of native infantry.

Delhi.—European artillery and infantry, and detachment native infantry.

Dera Ishmael Khan.—Company of European infantry from Mooltan.

Ferozepore.—European and native infantry guards.

Govindgurh.—European artillery and infantry.

Gwalior.—European artillery and infantry, and detachment Native Infantry from Morar.

Kangra.—European and native infantry detachments. In 1872 Lord Napier directed that this command should be held by a selected field officer of the Indian service.

Fort Lahore.—European artillery and infantry, and detachment native infantry from Meean Meer. Has garrison cells.

Fort Loodiana.—Held by detachment native infantry under command of an experienced British officer belonging to the corps furnishing the garrison.

Mooltan.—Detachments European and native infantry.

Mackeson.—An outpost of Peshawur held by a detachment under a native officer.

Muchee Bhawun (*Lucknow*).—Detachment European artillery, and native infantry.

Peshawur.—Detachment of British and native infantry. The command may be held by a field officer doing general duty at Peshawur.

Phillour.—Subadar's guard of native infantry.

Saugor has only non-commissioned officers' guards—European and native. After removal of the arsenal from Saugor a European Subaltern used to be detained for fort duty, but he was discontinued in June 1870.

Fort William is the head-quarters of Presidency District. Has a military prison.

Miscellaneous Commands.

Artillery.—Commands of Artillery, divisions, districts and stations, are regulated by paragraphs 69 and 70, Bengal Army Regulations, and G. G. O. No. 764, dated 15th August 1879.

Native officers are eligible for independent or detached command of a troop or company, and the principle of so employing native officers is encouraged.

Native troops.—An officer of the British service (not on the divisional staff) is not eligible for the command of a purely native force.

No. 279—10, dated Ootacamund, 6th October 1879.

From—Brigadier General F. W. JEBB, Adjutant General of Madras,

To—The Secretary to the Army Organization Commission.

No. 432, dated 19th September 1879.

In reply to your letter relative to the method obtaining in this Presidency in regard to the selection of officers for the General, Divisional, Brigade, and Station Staff of the Army, I have the honor, by order, to inform you, that officers of the British and Indian service seeking staff employment are at liberty to address the Military Secretary to the Commander-in-Chief on the subject. The Military Secretary, after ascertaining that they are in every respect eligible candidates, records their names in the Commander-in-Chief's book, kept for that purpose.

On an appointment becoming vacant, the qualifications, claims, and services of the eligible candidates whose names have been recorded are carefully considered by His Excellency, who makes the selection; the name is then given to the Adjutant General for publication in orders.

Within the last three or four years, in order to apportion more fairly the distribution of appointments to the General, Divisional, and Brigade Staff, and also to render service in India popular with officers of British Regiments serving in the Presidency, Sir Neville Chamberlain decided that in divisions and districts wherein were quartered British troops, if the General Commanding was not an officer of the British Service, one of his staff should be selected from that branch. These officers, with but one exception, have been appointed to the Staff of the Adjutant General's Department, being better acquainted with the routine of British Regiments than are officers of the Indian Staff Corps, and because it is considered that officers for the Staff of the Quarter Master General's Department require a more intimate knowledge of the country and the natives than is usually possessed by officers of British Regiments.

With regard to the officers selected for appointments on Station Staff, the rule above alluded to is not in force, the nomination for such being usually accorded to the Officer Commanding the Station, who generally selects an officer from his own regiment, and except at first and second class stations, he carries on his regimental duties in addition to those of the Station Staff Office.

The only practical suggestion that occurs to me as an additional qualification which might be introduced in the training of officers who have qualified for the Staff in India besides military signalling as suggested by the Quarter Master General of this army, is that they should be required to gain an insight into the interior economy of the two branches of the service, other than that of their own, as well as a general knowledge of the various field manœuvres in similar manner as is required of officers who have passed through the Staff College in England.

No. 1961, dated Ootacamund, 3rd October 1879.

From—Major J. EWING, Officiating Quarter Master General of Madras Army,

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

In reply to your letter No. 433, dated 19th September 1879, I have the honor, by order, to state that the present Commander-in-Chief has, during the time that he has held the command of this Army, done his best to select the officers who, from their previous character and services, gave promise of being able to discharge their duties efficiently.

2. To give that branch of the service its fair share in the administration of the Quarter Master General's Department, and in order to render service in India popular, His Excellency the Commander-in-Chief has considered that a fair proportion of staff appointments should be held by officers of the British Service and has acted on that principle.

3. His Excellency considers that officers who have passed all the examinations which are now required of them must, in an educational sense, be considered to have met all requirements.

4. The only additional qualification which Sir Neville Chamberlain could suggest would be, that they should be required to qualify themselves as military signallers.

No. 1550M., dated Matheran, 21st October 1879.

From—The Quarter Master General, Bombay Army,

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

In reply to your letter No. 435, dated the 19th ultimo, I have the honor, with the permission of His Excellency the Commander-in-Chief, Bombay, to forward a copy of the rules laid down for the selection and appointment of officers to the Staff of the Army in this Presidency.

Adjutant General's memorandum No. 112A.-T., dated Mahableshwur, 1st November 1878.

2. As regards the training and selection of Staff Officers, I can suggest no better system than the present one, which has hitherto answered extremely well.

3. No officer is selected for an appointment whose qualifications and character are not perfectly well known to the Commander-in-Chief and to heads of departments; he must have served twelve years or so to be eligible for any of the superior departmental appointments, and he must have qualified by passing certain required tests.

4. On appointment an officer has often to master the routine details of his office unaided, but to a zealous and intelligent man this offers no serious difficulty, and speaking from my own experience in the Quarter Master General's Department, which has extended over many years, I am of opinion that increased efficiency would not result from a change in the system now obtaining in this Army.

Memo. No. 112A.-T., dated Mahableshwur, 1st November 1878.

From—Brigadier-General H. BROOKE, Adjutant General, Bombay,

To—The Quarter Master General, Bombay.

The Adjutant General is directed by the Commander-in-Chief to forward for information and guidance, the following rules which His Excellency wishes followed in carrying out action in connection with the selection and appointment of officers to the Staff.

Adjutant General's Department. *a*
Quarter Master General's Department.
Judge Advocate General's „
Personal Staff.

* Divisional Commands.
Bridade „
Station „
Depôt „
Depôt Staff.

1. Selections for all appointments on the Staff of the Army and for the good service pensions will be made by the Commander-in-Chief in the Office of the Military Secretary.

2. Whenever a vacancy in any* Staff appointment, whether temporary or permanent, is about to occur, the Head of the Department (and for non-departmental appointments the Adjutant General) will notify the fact to the Military Secretary, forwarding at the same time any recommendation in connection with the vacant appointment which he may desire to submit to the Commander-in-Chief.

3. On the orders of the Commander-in-Chief being passed, the Military Secretary will notify His Excellency's selection to the Head of the Department and the officer concerned, and will at the same time forward to the Adjutant General a notification of the appointment in order that the usual draft general order may be forwarded to the Military Department of Government for publication in Government General Orders.

4. The posting of departmental officers to stations or duties will be made under the orders of the Commander-in-Chief by the Head of the Department, who will, after the appointment has appeared in the Gazette, forward a draft G. O. C. C. announcing the posting to the Adjutant General's Office for publication in General Orders of the Commander-in-Chief.

APPENDIX XXIII.

General Order by the Government of India, Military Department, permitting officers of the Staff Corps and Indian Army to compete for entrance to the Staff College, Sandhurst.

No. 1044 of 1876, dated Simla, the 6th October 1876.

Under the authority of Her Majesty's Government, it is hereby notified that officers of the Staff Corps and Indian armies will be allowed to compete for entrance to the Staff College, Sandhurst, under the terms of the annual Horse Guards General Order, publishing the conditions, with the exception that one of the conditions of qualification is, service in the Staff Corps, or in India, of not less than five years, exclusive of all furlough or leave of absence (except privilege leave), or the leave annually granted in England.

2. Of the officers competing annually, the three highest on the list will be admitted to the college, provided they secure a position within the number permitted to join.

3. The selected officers will travel at the public expense and be provided with passage in the troopships. They will proceed to England about the 15th November, so as to join the college on the 1st February following.

4. From the date of leaving India to the date of their return they will receive English pay of rank, and in addition, while at the staff college, quarters or the usual allowances in lieu, the ordinary extra allowance to staff college officers, forage, fuel and light, and be on exactly the same footing as officers of the British army.

5. The whole time from date of leaving appointment on duty in India, to the date of rejoining the same after passing through the college, will count as "duty," both for promotion and pension (but not for furlough as service in India), provided the final examination be passed successfully.

6. Any officer recommended for removal from the college by the commandant, as unlikely to make an efficient staff officer, or failing to pass the probationary examination at the end of the first year or the final examination, will be required to rejoin in India with the least possible delay; and the time spent from the date of leaving regiment, appointment, or duty in India, to the date of rejoining the same, will be absolutely forfeited, but will not be counted as furlough.

7. The course with other arms (see Horse Guards General Order No. 26 of 1874) will be undergone in India, and officers on passing the final examination will be allowed six weeks' leave of absence, and be required to embark for India by a troopship on or about the 1st February.

8. An officer while on furlough will be permitted to go up for the final examination without passing through the college according to the Horse Guards Regulations on the subject.

H. K. BURNE, *Colonel*,
Secretary to the Government of India.

APPENDIX XXIV.

Proposed distribution of Garrison Artillery in India.

Bengal Army Corps.

	Batteries.
Calcutta	1
Darjeeling	1
Allahabad	1
Agra and Gwalior	1
Delhi	1
	5

a Includes Brigade Majors and Station Staff Officers.

Punjab Army Corps.

	Batteries.
Govindgurh and Fort Lahore	1
Ferozepore	1
Rawal Pindi and Attock	1
	3

Bombay Army Corps

Pishin	1
Bombay	2
Aden	2
	5

Madras Army Corps.

Madras	2
Rangoon	1
Tonghoo } Thayetmyo }	1
	4

For *siege trains* in war time we might draw—
1 battery from Darjeeling.
1 battery from Ferozepore, that at Govindgurh sending a detachment to Ferozepore.
1 battery from Bombay.
1 battery from Madras.

The total is therefore 17 instead of 22. There would be, if the present establishment were retained—

$$72 \times 22 = 1{,}584 \text{ gunners.}$$

If 17 batteries of 100 gunners each were kept up, there would be 1,700 gunners; and every garrison battery would be 120 strong in officers, non-commissioned officers, and gunners.

The economy would be £13,731 per annum (*vide* annexed tables)—

	Rs.
22 (present number) × 76,830 = ...	16,90,260
17 (proposed number) × 91,350 = ...	15,52,950
Saving ...	1,37,310

in addition to a reduction of other effective and non-effective charges.

Statement showing the approximate annual cost of War Establishment of a garrison battery of Royal Artillery, as proposed for the Bengal Presidency with the numerical strength of officers and men, as detailed in the Statement F attached.

Items of charges.		Approximate annual cost of a battery of garrison artillery with 100 gunners.	Remarks.
	ESTABLISHED STRENGTH.		
Numbers...	Combatant officers	5	
	Non-commissioned officers and rank and file	115	
		Rs.	
Cost ...	Pay of combatant officers	23,058	
	Pay of non-commissioned officers and rank and file	29,194	
	Pay of regimental hospital, educational, native artificers and followers, conservancy and commissariat attendants, including regimental establishment and purveyors	5,340	

Items of charges.	Approximate annual cost of a battery of garrison artillery with 100 gunners.	Remarks.
Regimental, command, staff, library and contract allowances, prizes for schools and soldiers' gardens and workshops, together with good conduct, good shooting and family allowances, including other staff allowances of a regimental nature for officers and men ...	5,772	
Cost of provisions for Europeans, including loss on malt liquor, after taking into account the gain by the sale of rum	12,852	
Cost of regimental equipment for Europeans	115	
Cost of clothing and compensation in lieu (average of two years)	4,354	
Compensation to native followers for dearness of provisions	234	
Barrack charges, including bedding, punkah-pulling, lighting and miscellaneous supplies, but not furniture ...	3,497	
Medical charges, including medicines, diets and medical comforts	2,672	
Ordnance charges, including arms, tools, instruments, camp equipage, line-gear, annual practice ammunition, &c.	4,262	
Total cost per annum Rs. ...	91,350	
Annual average cost per man Rs. ...	794·35	

Statement showing the present and proposed establishment of garrison battery of Royal Artillery with total annual cost in the Bengal Presidency.

Ranks.	Battery of Garrison Artillery.		Remarks.
	Present strength.	Proposed strength.	
Combatant Officers.			
Major	1	1	
Captain	1	1	
Lieutenants	2	2	
Lieutenant	1	1	
Total officers ...	5	5	
Non-Commissioned Officers and Rank and File.			
Staff Sergeant	1	1	
Sergeants	4	4	
Trumpeter	1	1	
Ditto	1	1	
Corporals	4	4	
Bombardiers	4	4	
Gunners	72	100	
Total non-commissioned officers and men ...	87	115	
Total established strength ...	92	120	

	Rs.
Annual cost of a garrison battery of Royal Artillery with 72 *gunners as at present*	78,830
Annual cost of a garrison battery of Royal Artillery, with 100 *gunners as proposed*, and detailed in Statement attached	91,350

APPENDIX XXV.

Correspondence and Proceedings of a Committee on the formation of ammunition columns.

No. 558, dated Simla, 8th October 1879.

From—Captain E. H. H. COLLEN, Secretary, Army Organization Commission,

To—The Chief of the Staff of the Army in India.

I am requested by the Commission to apply to you for a copy* of the Proceedings of a Committee lately assembled on "Reserve ammunition columns," over which Brigadier-General Arbuthnot presided, for the use of their members.

* With spare copies, if printed.

No. 10650, dated Simla, 16th October 1879.

From—The Deputy Adjutant General, Royal Artillery in India,

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

I have the honor, by desire of the Commander-in-Chief in India, with reference to your letter No. 558, dated 9th October 1879, to the address of the "Chief of the Staff of the Army in India," which has been transferred to this office for action, to state that the Report of the Committee on Artillery Reserve Ammunition Columns, of which Brigadier-General C. G. Arbuthnot, C.B., Royal Artillery, was President, is about to the forwarded to Government with His Excellency's remarks thereon.

2. As Sir Frederick Haines wishes the Commission to be in possession of these remarks, they will be forwarded to you with ten copies of the Committee Proceedings in the course of a day or two.

No. 10911, dated Simla, 22nd October 1879.

From—Colonel A. H. MURRAY, Deputy Adjutant General, Royal Artillery in India,

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

I have the honor, by desire of the Commander-in-Chief in India, in continuation of my letter No. 10650, dated 16th October 1879, to forward herewith, for the information of the Commission, twenty copies of the Report of the Committee of which Brigadier-General C. G. Arbuthnot, C.B., Royal Artillery, was President, on a subject of Artillery Reserve Ammunition Columns, together with a copy of Adjutant General's letter No. 10855, dated 22nd October 1879, to Government, conveying His Excellency's remarks thereon.

2. I am to add that Government has been informed of the despatch of the above to your address.

No. 10855, dated Simla, 22nd October 1879.

From—Major-General SIR P. S. LUMSDEN, K.C.B., C.S.I., Adjutant General in India,

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

I have the honor, by desire of the Commander-in-Chief in India, with reference to Military Department letter No. 1507S.-D., Artillery—Organization, dated 18th August 1879, and previous correspondence, regarding the abolition of the 2nd lines of wagons of batteries of Horse and Field Artillery, and the adoption of the system of ammunition columns or reserves in accordance with the Home regulations, to forward herewith the Proceedings of the Committee, of which Brigadier-General C. G. Arbuthnot, C.B., Inspector General of Royal Artillery for India, was President, to consider this subject, as also a copy of His Excellency's instructions issued to that Committee by the Deputy Adjutant General, Royal Artillery in India.

2. I am to remark as follows on the opinions of the Committee on the several points considered by them :—

I.—Sir Fredrick Haines fully concurs in the opinion expressed :

(*a*) That bullock draught should be abolished for both Horse and Field Artillery purposes in India. A few should, however, be retained for the purpose of removing litter from the lines, taking stores, &c., to and from the station, bringing in earth for stable conservancy, repair of walls, standings for horses, &c., and His Excellency recommends that five bullocks per battery be allowed for this purpose instead of the seven hitherto sanctioned.

(*b*) That, with a view to making a battery as mobile as possible, it is desirable to do away with the second line of wagons, and adopt a system of artillery reserves somewhat similar to that obtaining at Home, but modified to suit the requirements of service in this country.

II.—As regards the question of ammunition reserves for batteries at stations not near an arsenal or depôt, the Commander-in-Chief concurs in the system advocated, but proposes a modification on the recommendations of the Committee as regards the number of units proposed, as also the stations

at which they should be located. Statement A (annexed) shows the stations at which His Excellency would recommend these reserve wagons should be kept horsed with batteries, and B, the stations for which the wagons should be kept in Ordnance charge, ready for issue when required by batteries, but not horsed.

Doubtless batteries at frontier stations should be in possession of their reserves; but until the further development of roads in Afghanistan, His Excellency considers that, while some batteries should be in possession of wheeled draught for their reserves, experience has shown that all should have a proportion of pack animals, and that suitable boxes and pack saddles for the transport of the reserve ammunition of batteries should be available as under—

At Peshawar—For one horse artillery battery, one field battery, and one heavy battery.

At Kurram—For one horse artillery battery and one field battery.

At Pishin—For one field battery.

At Quetta—For one heavy battery.

III.—The conclusion arrived at by the Committee as to the sufficiency of the reserves proposed, *viz.*, one wagon for 2 guns, is concurred in by the Commander-in-Chief.

The following shews the number of rounds per gun which batteries without reserve wagons will have, *viz.*,—

	Rounds.
Shrapnel shell	112
Common „	32
Case shot	4
Total	148

Batteries which have the extra wagons will have in addition—

Shrapnel shell	42
Common „	12
Total	54

per gun, making a total of—

Shrapnel shell	154
Common „	44
Case shot	4
Total	202

per gun, of batteries on war strength, and which, in Sir Frederick Haines' opinion, will be sufficient to be in artillery charge.

IV.—The opinion of the Committee as to the maintenance of army corps reserves not being necessary in India is concurred in; but, when a larger proportion of rounds than the above is considered necessary, which doubtless would be the case, in the event of prolonged hostilities or of a force operating at a long distance from arsenals or depôts, reserves in ordnance charge will have to be maintained, for which purpose wagons with bullock draught can be utilized as suggested, or such other means of carriage as may be procurable locally. The necessity for this should not be overlooked under any circumstances.

V.—The Commander-in-Chief is entirely opposed to any reduction in the European establishment of batteries as at present sanctioned, and which is now reduced to a minimum. They are supposed to be always on a war footing; but the existing establishment is shown by our later experience not equal to this, as it has been found, in every instance of placing a battery in the field, absolutely necessary to take men from batteries left behind to render efficient and complete those proceeding on service; and in peace time it is only necessary to refer to the morning states of batteries, especially during the hot season, to see, at a glance, that the "number of men fit for duty" is not one too many. In exceptionally sickly season or epidemics, it is not at all times possible to turn out all the wagons (*1st* line) for want of drivers, or all the guns, except by working with reduced number of gunners. Moreover, it must be remembered that a further reduction is caused by a certain number of gunners and drivers being sent to the hills during the hot season.

VI.—His Excellency considers that, in each of the 14 batteries of Horse Artillery in India, 6 sets of horse appointments and 16 horses, *viz.*, 4 riding and 12 draught, can be dispensed with from the present establishment; but that as 6 horses will be required for the store limber wagon, and 6 for the spare gun carriage, total 12, an actual decrease of 4 horses only will be possible when the spare carriages are horsed, giving a total of 174 per battery.

The present number of sets of harness (including spare), with the addition of 4 single sets of wheel harness, will be sufficient to provide harness for the spare carriages, and leave a proportion of spare harness. Against this increase there will be a permanent reduction of 17 bullocks; and also a further permanent reduction of the bullocks, at stations where they are at present kept up for the *2nd* line wagons, will be feasible, or deducting 5 recommended to be retained in Clause I (*a*). An actual reduction of 17+42−5=54 will be effected.

VII.—As regards the Field Artillery, no reduction in horses or harness is possible, and the 41 batteries in India will each require the following additions for the spare carriages, *viz.*,—

	Horses.
For the store limber wagon	6
„ store cart	2
„ spare gun carriage	6
Total	14

or a grand total of 124 horses per battery. 14 more single sets of harness, *viz.*, 6 lead and 8 wheel, will also be required for the purpose. Against this there will be a permanent saving of 24 bullocks, and also a further reduction of 42 bullocks per battery at stations where second lines of wagons are at present sanctioned; or, deducting 5 from these for battery purposes, a total 24 + 42 — 5 =61.

VIII.—The following native drivers will be required for the spare carriages of each battery (horse and field) *viz.*,—

For store limber wagon	3
„ spare gun carriage	3
Spare	2
Total	8

one of whom should be a naick. (As regards pay and clothing of these men, *vide* clause X.)

IX.—At stations where reserve wagons are kept up, 18 horses with harness will be required for each unit of 3 wagons. The following drivers will also be required, *viz.*,—

3 per wagon	9
Spare	3
Total	12

one of whom should have the rank of naick.

X.—Sir Frederick Haines is prepared to accept the recommendation of the Committee that syce drivers should be provided for these reserve wagons, as also for the spare carriages of batteries now proposed to be horsed; but, as suggested in this office letter No. 1375, dated Lahore, 19th February 1879, paragraph 8, the whole of these men should be enlisted, receive the same pay as the driver establishment of a Mountain Battery, and be clothed at the expense of the State. Syces and grass-cutters will be required for the horses of the reserve wagons, as also for the spare carriages of batteries in the same proportion as for the other horses of batteries, *viz.*, 1 syce for every 2 horses, and 1 single bundle grass-cutter for each horse or 1 double bundle grass-cutter for every 2 horses.

XI.—It will be for Government to decide whether the same stamp of horses as at present supplied to batteries will be used for the reserve wagons, or whether, as suggested in paragraph 5 of the letter above referred to, strong yaboos, or galloways, of about 14 hands in height, which might be obtained from the studs, or purchased locally by commanding officers, at an average price of say Rs. 250, and passed by Station Committee, could not be utilized for this purpose; but if the measure is carried out, 8 of these animals per wagon will be required, or 24 per unit of 3 wagons, with a proportion of spare, as also a corresponding increase in the number of drivers, sets of harness, &c., so that probably this would not cause any saving. The advantage also of having all horses attached to a battery, fit for gun draught, should not be overlooked.

XII.—As regards the question of the most suitable carriage for artillery ammunition, His Excellency recommends the adoption of the proposals of the Committee throughout, and I am to suggest that the Inspector General of Ordnance and Magazines be directed to prepare specifications of boxes, suitable for the carriage, on pack animals of all ammunition likely to be required to be so carried, *viz.*,—

9-pr. M. L. R.
40-pr. M. L. R.
25-pr. M. L. R.
6·3″ Howitzer.

and that when the patterns have been decided and approved, a sufficient number, with pack-saddles and gear complete, be kept up by the Ordnance Department ready for issue at short notice.

3. I am to observe that should Government approve of the recommendations of the Committee, with the modifications above detailed, a great gain in efficiency will be effected; and, although a slight increase in expense will be caused by the proposed arrangements, as per Statements C and D, it must be borne in mind that experience has shewn that bullock draught for the spare carriages, and second lines of ammunition wagons of batteries, is totally unfitted for service generally.

4. Brigadier-General Arbuthnot's Committee certainly shew a small decrease in expense, but the Commander-in-Chief would observe that this is chiefly caused by the reduction of 179 European drivers at Rs. 1,000 each per annum, which estimate, however, is believed to be excessive, and that had the actual cost of each man per annum been estimated, the calculations of the Committee would have shewn a large increase in expenditure.

5. In conclusion, I am to state that, at the request of the Army Organization Commission, copies of the report of Brigadier-General Arbuthnot's Committee have been forwarded for their information, and that as Sir Frederick Haines deemed it advisible that the Commission should also be in possession of His Exeellency's views regarding the recommendations of the Committee, a copy of this letter has been transmitted with the Committee Proceedings.

A.

List of Stations in India at which it is recommended that artillery reserve ammunition wagons should be kept horsed with batteries.

Presidency.	Station.	No. of reserves.	No. of wagons.
Bengal	Peshawar	1	3
,, ...	Rawal Pindi	1	3
,, ...	Bareilly	1	3
,, ...	Sialkot	1	3
,, ...	Saugor	1	3
,, ...	Morar	2	6
,, ...	Nowgong	1	3
,, ...	Dinapore	1	3
,, ...	Mooltan	1	3
Madras	Kamptee	1	3
,, ...	Secunderabad	1	3
Bombay	Kurrachee	1	3
,, ...	Above Dadur	1	3
,, ...	Nusseerabad	1	3

SIMLA,
22nd October 1879.

A. H. MURRAY, *Colonel,*
Deputy Adjutant General, R. A. in India.

B.

List of Stations in India for which it is recommended that artillery reserve ammunition wagons should be kept in Ordnance charge, ready for issue when required by batteries, but not horsed.

Presidency.	Station.	No. of reserves	No. of wagons.	Where kept in store.
Bengal	Peshawar	1	3	Peshawar Depôt.
,, ...	Rawal Pindi	1	3	Rawal Pindi Depôt.
,, ...	Meean Meer	2	6	Ferozepore Arsenal.
,, ...	Ferozepore	1	3	Ditto.
,, ...	Umballa	2	6	Ditto.
,, ...	Meerut	3	9	Agra Depôt.
,, ...	Agra	1	3	Ditto.
,, ...	Lucknow	2	6	Allahabad Arsenal.
,, ...	Fyzabad	1	3	Ditto.
,, ...	Cawnpore	1	3	Ditto.
,, ...	Allahabad	1	3	Ditto.
,, ...	Benares	1	3	Fort William Arsenal.
,, ...	Barrackpore	1	3	Ditto.
Madras	Kamptee	1	3	Nagpore Depôt.
,, ...	Secunderabad ...	2	6	Secunderabad Depôt.
,, ...	Bangalore	3	9	Bangalore Depôt.
,, ...	St. Thomas' Mount ...	2	6	St. Thomas Mount Arsenal.
Bombay	Kurrachee	1	3	Karachi Depôt.
,, ...	Ahmedabad	1	3	Ahmedabad Depôt.
,, ...	Mhow	1	3	Khundwa Arsenal.
,, ...	Kirkee	3	9	Poona Depôt.

SIMLA,
22nd October 1879.

A. H. MURRAY, *Colonel,*
Deputy Adjutant General, R. A. in India.

C.

Statement shewing cost of substituting artillery reserve wagons (3 per battery) with horse draught at certain stations, in lieu of the present 2nd line of wagons with bullock draught.

	Decrease.	Increase.
	Rs.	Rs.
Saving of 25 batteries at 37 bullocks, 25 × 37 × 128 Rs. (including all charges.)	1,18,400	...
Saving of 30 batteries at 2 bullocks, 30 × 2 × 128 Rs. (including all charges.)	7,680	...
Increase of 15 batteries at 18 horses, 15 × 18 × 304 Rs. (including all charges.)	...	82,080
Increase of 15 batteries at 18 sets of harness, 12 lead × 15 × 55 Rs. ÷ 6= 1650 Rs.		
Increase of 15 batteries at 18 sets of harness, 6 wheel × 15 × 65 Rs. ÷ 6= 985 Rs.	...	2,635
Increase of 15 batteries at 1 Naick Driver, 15 × 120 Rs.	...	1,800
„ „ 15 „ „ 11 Native Drivers, 15 × 11 × 84 Rs. ...	...	13,860
„ „ 15 „ clothing for 12 Native Drivers 15 × 12 × 15 Rs....	...	2,700
Total	1,26,080 1,03,075	1,03,075
GRAND TOTAL	23,005	

SIMLA,
22nd October 1879.

A. H. MURRAY, *Colonel,*
Deputy Adjutant General, R. A. in India.

D.

Statement of cost of substituting horse for bullock draught in the spare carriages of 55 batteries composed of 14 R. H. A. and 41 R. A. batteries.

	Decrease.	Increase.
	Rs.	Rs.
Horse Artillery.		
Decrease 4 horses = 14 × 4 × 304 Rs. (including all charges) ...	17,024	...
„ 6 sets of appointments = 14 × 6 × 7 Rs.	588	...
„ 17 bullocks = 14 × 17 × 128 Rs. (including all charges) ...	30,464	...
Increase 4 single sets harness-wheel = 14 × 4 × 11 Rs.	...	616
„ 2 „ „ „ lead = 14 × 2 × 9 Rs.	...	252
„ 1 Naick and 7 Drivers (native) = (135+7×99) = (135+693)= 14 × 828 Rs. (including all charges).	...	11,592
Field Artillery.		
Decrease 24 bullocks = 41 × 24 × 128 Rs. (including all charges) ...	1,25,952	...
Increase 14 horses = 41 × 14 × 304 „ („ „ „) ...	...	1,74,496
„ 8 single sets harness-wheel = 41 × 8 × 11 Rs.	...	3,608
„ 6 „ „ „ lead = 41 × 6 × 9 Rs.	...	2,214
„ 1 Naick and 7 Drivers (native) = 41 × 828 Rs. (including all charges.)	...	33,948
Total	1,74,028	2,26,726
		1,74,028
GRAND TOTAL	...	52,698

	Rs.
Increase by horsing spare carriages	52,698
Decrease by substituting reserve wagons for 2nd line wagons as per Statement C.	23,005
Actual increase	29,693

SIMLA,
22nd October 1879.

A. H. MURRAY, *Colonel,*
Deputy Adjutant General, R. A. in India.

Proceedings of a Committee assembled at Simla on 2nd September 1879, by order of His Excellency General SIR F. HAINES, G.C.B., *Commander-in-Chief, bearing date 26th August 1879, for the purpose of considering questions laid before it, in a letter No. 8203, from the Deputy Adjutant General, Royal Artillery in India, addressed to the President, Brigadier-General* C. G. ARBUTHNOT, C.B., *Inspector General, Royal Artillery in India, which document is attached to the proceedings.*

President:

Brigadier-General C. G. ARBUTHNOT, C.B., Inspector General, Royal Artillery.

Members:

Major H. J. F. SHEA, Royal Artillery.

Major the Hon'ble A. STEWART, Royal Horse Artillery.

The Committee having assembled pursuant to orders, proceeded to consider the various questions laid before it, in each paragraph of the Deputy Adjutant General's letter No. 8203.

Question I.—General question as to advisability of the abolition of bullock draught for horse and field artillery purposes in India.

Opinion.—The Committee are of opinion that bullock draught should be abolished for both horse, and field artillery purposes in India, as the want of mobility bullock draught seriously impairs the efficiency of batteries upon service.

Question II.—Whether from the experience gained during the late operations in Affghanistan, and with a view to making a battery as mobile as possible, it might not be desirable to do away with the second line of wagons, and adopt a system of ammunition columns or reserves, as now detailed in the organization of an English division or army corps, as laid down in Army Circular No. 186 of 1st December 1877.

Opinion.—The Committee are of opinion that with a view to making a battery as mobile as possible, it is desirable to do away with the second line of wagons and adopt a system of artillery reserves somewhat similar to that obtaining at Home, but modified to suit the requirements of service on this country.

Question III.—If the above be recommended, the question of ammunition reserves, as well as transport for the same, for batteries at stations not near an arsenal or depôt, will have to be provided for in all cases where it may be deemed advisable by the Committee still to retain in time of peace a reserve capable of moving at short notice.

Opinion.—The Committee are of opinion that in substitution of the 150 wagons of second line with bullock draught at present maintained by batteries, 66 wagons with horse draught should be maintained as Artillery reserves, and that 45 of them should be located at stations in the Punjab and Sind on or near the principal lines of communication. These in the opinion of the Committee will form a sufficient reserve for 90 guns. The remainder of the wagons (21) should be located at stations where they will be readily available for operations in other parts of the country. (See Statement A attached).

The increased mobility which will be obtained by the substitution of horse draught, and by dissociating the reserve from batteries, will, in the opinion of the Committee, enable a reserve of one wagon per two guns to supply ammunition in action more efficiently than can at present be done with a second line of one wagon per gun drawn by bullocks. In fact any supply during action from the second line bullock wagons is so improbable that for the special duties of a first reserve they are useless.

One wagon per two guns will give a divisional reserve of 52 rounds per gun. This is no doubt less than the divisional reserve (78 per gun) authorised at home; but, in recommending the smaller amount, the Committee have taken into consideration that the very heavy expenditure of ammunition, so frequently incurred in European warfare in preparing an attack, will seldom, if ever, be incurred in this country. The Committee do not recommend the maintenance of any army corps reserves. They will seldom be required. In the recent operations, for instance, in Affghanistan they would have been quite useless. Should they ever be found necessary, wagons with bullock draught can be made use of.

The estimated cost of substituting horse for bullock draught in spare carriages and reserve ammunition wagons is shown in Statements B, C.

To meet the extra cost of horse draught the Committee propose a reduction in the establishment of horses of a battery of horse artillery, and also in syces and harness, which they feel sure can be effected without any loss of efficiency (see statement D).

The Committee recommend the employment of syce drivers with all spare carriages, and with the reserve ammunition wagons. This will admit of a reduction of four European drivers in each battery of Horse Artillery, and of three in each battery of Field Artillery. The syce drivers should be enlisted and dressed in a suitable uniform.

Question 2.—The most suitable carriage for Artillery ammunition?

Opinion 2.—The different descriptions of ammunition for which carriage has to be provided for service in the field, are—

For heavy batteries, 40 pr. and 6·3 howitzer ammunition.

Horse and Field Artillery 9 pr.

Mountain Artillery 7 pr.

The Committee are of opinion that, for all operations in the plains of India, the most suitable carriage for the horse, field, and heavy batteries is an ammunition wagon with horse draught for horse and field artillery and bullock draught for the heavy batteries.

For operations in a country like Affghanistan it is in the opinion of the Committee desirable that batteries of horse and field artillery should, as in the plains of India, have their first line of wagons, and that there should be a reserve of one wagon per two guns, but that there should be, in addition,

a supply of ammunition boxes suitable for camel or other carriage for operations in country, which, although practicable for guns, is so difficult as to render it desirable to dispense with wagons. For such country, however, if the jointed gun is found to answer, no provision for carriage of 9-pr. ammunition will, in the opinion of the Committee, be required.

40-Pounder. For the carriage of the ammunition of a heavy battery in a mountainous country, it is no doubt desirable to reduce the number of bullocks as much as possible, but as they must be employed with the 40-pounder guns, there would be little to be gained by introducing expensive horse draught for the other carriages. A reduction, however, in the opinion of the Committee, should be made in the number of wagons. These batteries now have four lines of wagons. Two lines the Committee consider to be necessary to ensure the proper supply of ammunition in action, but they consider the ammunition of the remaining lines should be carried upon camels.

They are of opinion that the patterns of boxes proposed by the Commissary of Ordnance, Peshawar, in his letter No. 151 of 16th May 1879, are defective in the following particulars:—

1*st.*—The single shell in box with fuzes, tubes, &c., is not properly secured, and the position of the shell on its side is faulty.

2*nd.*—It is not advisable to carry 14 cartridges, containing 87 lbs. of powder in all, in one box, unless it is a properly secured metal lined case. It would, moreover, be advantageous to have the cartridges, and small stores carried, as far as practicable, with their projectiles; and this, in the opinion of the Committee, can best be done in boxes constructed to hold two projectiles and cartridges each, with compartments for fuzes, tubes, &c. These latter, however, cannot be equally distributed, as the cylinders in which they are packed must not be opened.

9-Pounder. For the carriage of the 9-pounder ammunition the Committee recommend a leather box, not exceeding when packed, 80 lbs. in weight (a load which can be adapted to any kind of carriage), the proper complement of cartridges, fuzes, tubes, &c., for the projectiles being carried with them in each box. Two of these boxes would be a load for a pony, mule, or bullock, four for a camel, and eight for an elephant.

7-Pounder. The carriage of the ammunition for the 7-pr. mountain guns is, in the opinion of the Committee, already fully provided for.

With regard to the number of rounds to be in regimental charge and carried by European and native mountain batteries, the Committee are of opinion that for operations of any magnitude, there should be in battery charge 90 rounds per gun, with an artillery reserve of 45 rounds per gun, but that for minor operations, such as the Lushai and Duffla expeditions, the number of rounds should depend upon the nature of the country, and the amount of opposition expected to be met with.

C. G. ARBUTHNOT, *Brigadier-General, President.*
HENRY SHEA, *Major, R.A.*,
A. STEWART, *Major, R. H. A.* } *Members.*

SIMLA,
9th September 1879.

A.

List of Stations in India at which the Committee recommend that artillery reserve ammunition columns be located.

Presidency.	Station.	No. of units.	No. of wagons.
Bengal	Peshawar	2	6
„	Rawal Pindi	2	6
„	Campbellpore	1	3
„	Sialkot	1	3
„	Meean Meer	2	6
„	Meerut	2	6
„	Morar	2	6
„	Lucknow	2	6
„	Mooltan	1	3
Bombay	Hydrabad	2	6
„	Kurachi	2	6
„	Kirkee	3	9

Each unit consists of three wagons.

In the event of its being deemed necessary to place reserve wagons in Kurrum and Pishin, they might, in the opinion of the Committee, be transferred from Sialkot and Campbellpore.

C. G. ARBUTHNOT, *Brigadier-General,*
President.

9th September 1879.

B.

Statement of cost of substitution of Horse for Bullock Draught in Spare Carriages of 55 Batteries composed of 14 Royal Horse Artillery and 41 Royal Artillery Batteries.

Cr. Dr.

	Rs.	A.	P.		Rs.	A.	P.
1. 1,222 bullocks at Rs 128 each per annum	156,416	0	0	1. Increase of 852 horses for Royal Horse Artillery and Royal Artillery Batteries, at Rs. 304 per horse per annum	259,008	0	0
2. Reduction of 179 European Drivers of spare carriages at Rs. 1,000 each man per annum	179,000	0	0	2 Increase of 55 Naicks at Rs. 120 per annum	6,600	0	0
Reduction of 179 syces at Rs. 60 per annum	10,740	0	0	3. Increase of 715 Syce-drivers at Rs. 84 per annum	60,060	0	0
				Clothing for naicks and syces (770 men) at Rs. 15 per annum	11,550	0	0
				4. Harness for 852 horses, *viz*, 550 lead at Rs. 55 ÷ 6 and 302 wheel at Rs. 65 ÷ 6	8,313	5	4
				Balance Credit	624	10	8
Total Rupees	346,156	0	0	Total Rupees	346,156	0	0

1. 14 Batteries Royal Horse Artillery at 17 bullocks per battery ... 238
   41 Batteries Royal Artillery at 24 bullocks per battery 984
   Total ... 1,222

The cost of a bullock has been estimated at Rs. 128 per annum, calculated to include every expense, and allowing an annual casting of 10 per cent. with an average service of 10 years.

2 Reduction of 4 Europeans per Royal Horse Artillery and 3 per Royal Artillery battery.

1. Increase of 14 horses for 14 Royal Horse Artillery batteries 196
   Increase of 16 horses for 41 Royal Artillery batteries 656
   Total 852

The cost of a horse has been estimated at Rs 300 per annum, calculated to include every expense and allowing an annual casting of 10 per cent. with an average service of 10 years.

2. Increase of one naick per battery.
3. ,, 13 syce-drivers per do.
4. As harness is supposed to last six years, the annual value thereof has been estimated at one-sixth of the first cost.

G. C. ARBUTHNOT, *Brigadier-General,*
President.

9th September 1879.

C.

Statement showing cost of substituting artillery reserve ammunition columns with horse draught, in lieu of the present 2nd line of wagons with bullock draught.

Cr. Dr.

Present establishment 2nd line wagons.	Rs.	A.	P.	Proposed establishment of 22 units of 3 wagons each.	Rs.	A.	P.
25 Batteries, *viz.* 10 Royal Horse Artillery and 15 Royal Artillery, or 150 wagons or 1,050 bullocks, at Rs. 128 per bullock per annum	1,34,400	0	0	22 units of 3 wagons each or 66 wagons, each unit consisting of—			
				1. One Naick at Rs. 10 per month, or per annum ... Rs. 120 0 0			
				2. 13 syce-drivers at 7 per month, or per annum ... 1,092 0 0			
				3. Clothing for 14 men at Rs 15 per annum 210 0 0			
				4. 22 horses at Rs. 304 per annum ... 6,688 0 0			
				5. Harness (14) sets, lead at Rs. 55 ÷ 6 ... 128 5 4			
				Harness (8) sets wheel at Rs. 65 ÷ 6 ... ... 86 10 8			
				Total cost of one unit ... 8,325 0 0			
				Total cost of 22 units at Rs. 8,325 per unit per annum	183,150	0	0
Balance Dr. ...	48,750	0	0				
Total Rupees	1,83,150	0	0	Total ...	183,150	0	0

1. Same rate of pay as for naicks of native mountain batteries
2. ,, ,, as for syce-drivers ,,
3. Estimated at Rs. 15 per man.
4. Keep of a horse, including all expenses ... Rs. 224 0 0
   Cost of a horse taken at Rs. 800, as a horse is supposed to last about ten years, the value of a horse for one year is estimated at ... ,, 80 0 0
   Total ... ,, 304 0 0
5. Cost of harness taken from "Report of the Special Ordnance Commission appointed by order of the Government of India, 1875." As harness is supposed to last for about six years, one-sixth of its first cost is taken as the value of a set for one year.

C. G. ARBUTHNOT, *Brigadier-General,*
President.

9th September 1879.

D.

Statement of proposed reduction of present establishment to meet the cost of substitution of Horse for Bullock draught in spare carriages of Horse and Field Artillery and the introduction of ammunition reserves with horse draught in lieu of 2nd line of wagons with bullock draught.

	Rs.	A.	P.
1. Reduction of 6 draught and 4 riding horses or 10 horses in 14 Royal Horse Artillery batteries, or 140 horses at Rs. 304 each ...	42,560	0	0
2. Reduction of harness sets, lead, 84 at Rs 55 ÷ 6 ...	770	0	0
Reductions of appointments, 42 at Rs 42 ÷ 6 ...	294	0	0
3 Reduction, syces 140 at Rs. 60 each per annum	8,400	0	0
Total ...	52,024	0	0

1. Keep of a horse, including all expenses per annum ... ... Rs. 224 0 0
Cost of a horse taken at Rs. 800. As a horse is supposed to last about ten years, the value of a horse for one year is estimated at ... ... „ 80 0 0
Total ... „ 304 0 0

2. Reduction of harness, 6 sets per battery; reduction of appointments, 3 sets per battery; cost of sets of appointments and harness Rs. 42 and 55 respectively, one-sixth of which has been taken as the value for one year.

3. Reduction of syces ten per battery in consequence of reduction of horses.

C. G. ARBUTHNOT, *Brigadier-General, President.*

9th September 1879.

E.

Abstract of Statements B, C, and D.

	Rs.	A.	P.		Rs.	A.	P.
Reduction effected by substitution of horse for bullock draught as shown in Statement B.	624	10	8	Cost of introduction of horse draught as proposed by Committee shewn in Statement C.	48,750	0	0
Reduction of present establishment as proposed by Committee shown in Statement D.	52,024	0	0	Balance Credit ...	3,898	10	8
Total ...	52,648	10	8	Total ...	52,648	10	8

C. G. ARBUTHNOT, *Brigadier-General, President.*

9th September 1879.

No. 8203, dated Simla, 26th August 1879.

From—Colonel A. H. MURRAY, Deputy Adjutant General, Royal Artillery in India,

To—The Inspector General, Royal Artillery for India.

I have the honor, by desire of His Excellency the Commander-in-Chief, to inform you that, under the orders of Government, you have been appointed President of a Committee, with the officers named in the margin as members, who have been ordered to Simla to consider—

Major H. J. F. Shea, R. A.
„ the Honourable A. Stewart, R. H. A.

I.—The general question as to the advisability of the abolition of bullock draught for horse and field artillery purposes in India.

II.—Whether, from the experience gained during the late operations in Afghanistan, and with a view to making a battery as mobile as possible, it might not be desirable to do away with the 2nd line of wagons, and adopt the system of ammunition columns or reserves, as now detailed in the organization of an English division and army corps, and laid down in Army Circular No. 186 of 1st December 1877.

III.—If the above be recommended, the question of ammunition reserves, as well as transport for the same, for batteries at stations not near an arsenal or depôt will have to be provided for in all cases where it may be deemed advisable by the Committee still to retain in time of peace a reserve capable of moving at short notice.

2. In addition, I am to request that your Committee will report as exhaustively as possible upon the most suitable carriage for artillery ammunition, not only as above for large forces but under all the various conditions of service under which artillery may be employed in this country, or in a country like Affghanistan, including recommendations as to the number of rounds to be in regimental charge and carried by European and native mountain batteries of artillery, bearing in mind that when employed with small forces in minor operations no reserves are carried by such forces.

APPENDIX XXVI.

Detail of 9-pr. Rifled Muzzle-loading Batteries in horses and carriages on an ordinary and increased establishment, as proposed by the Army Commmission.

Regiments.	Horse.		Field	
	Ordinary.	Increased.	Ordinary.	Increased
Riding.				
Staff Sergeants	2	2	2	2
Non-Commissioned officers	12	12	6	12
Farriers	1	1	1	1
Shoeing-smiths	1	2	1	1
Trumpeters	2	2	2	2
Gunners	36	36	...	...
Spare	6	9	4	4
Total Riding	60	64	16	22
Guns (6)	36	36	36	36
Wagons — Ammunition (6)	36	36	36	36
Wagons — Forge (1)	4	6	4	6
Wagons — Store limber (2) *	8	10	8	10
Spare gun carriage (1)	...	4	...	4
Store cart (1)	..	2	...	2
Ammunition carts (6)	12	24	12	12
Spare	12	18	12	16
Total Draught	108	136	108	122
Grand Total	168	200	124	144

* 4 horses for line gear wagon.
6 horses for the second wagon containing materials for repairs.

APPENDIX XXVII.

Strength and cost of a British Cavalry and Infantry Regiment as proposed by the Commission.

A.

Statement shewing the approximate annual cost of war establishment of a Regiment of British Cavalry and British Infantry, as proposed by the Commission with the numerical strength of officers and men.

Items of Charges.	Approximate Annual Cost of a		Remarks.
	Regiment of British Cavalry (8 troops).	Regiment of British Infantry.	
Established Strength.			
Numbers — Combatant and medical officers	34	33	
Numbers — Non-commissioned officers and rank and file	586	1,044	
Cost—	Rs.	Rs.	
Pay of combatant and medical officers	1,68,483	1,43,793	
Pay of non-commissioned officers and rank and file	1,46,534	2,06,172	
Pay of native establishment, regimental hospital, educational, native artificers and followers, conservancy and commissariat attendants, including regimental establishment and purveyors	65,437	17,864	
Regimental, command, staff, horse, library and contract allowances, prizes for schools and soldiers' gardens and workshops, together with good conduct, good shooting and family allowances, including other staff allowances of a regimental nature for officers and men	74,719	53,583	
Cost of provisions for Europeans, including loss on malt liquor, after taking into account the gain by the sale of rum	68,000	1,17,000	
Purchase of horses (including depôt charges) to replace annual casualties after taking into account the proceeds of sale of cast horses	50,570	...	
Feed of horses and regimental equipment, &c.	40,982	1,048	
Cost of clothing and compensation in lieu (average of two years)	26,000	32,275	
Compensation to native followers for dearness of provisions	6,144	858	
Barrack charges, including, bedding, punkah-pulling, lighting and miscellaneous supplies, but not furniture	18,000	31,893	
Medical charges, including medicines, diets, and medical comforts	14,500	24,870	
Ordnance charges, including arms, tools, instruments, camp equipage, line-gear, annual practice ammunition, &c.	24,000	22,396	
Total cost per annum, Rupees	7,03,369	6,51,752	
Annual average cost per man, Rupees	1200 25	624 28	

B.

Statement shewing the present and proposed establishment of a regiment of British Cavalry and British Infantry, with total annual cost of each.

Ranks.	British Cavalry Regiment.		Ranks.	British Infantry Regiment.	
	Present strength.	Proposed strength.		Present strength.	Proposed strength.
Combatant and Medical Officers.			*Combatant and Medical Officers.*		
Lieutenant-Colonel	1	1	Lieutenant-Colonel	1	1
Major	1	1	Majors	2	2
Captains	6	8	Captains	8	8
Lieutenants	12	16	Lieutenants	16	16
Adjutant	1	1	Adjutant	1	1
Pay Master	1	1	Pay Master	1	1
Riding Master	1	1	Quarter Master	1	1
Quarter Master	1	1	Medical Officer (Surgeon-Major)	1	1
Medical Officer (Surgeon Major)	1	1	Ditto (Surgeons)	2	2
Ditto (Surgeons)	2	2			
Veterinary Surgeon	1	1			
Total Officers	28	34	Total Officers	33	33
Non-Commissioned Officers and Rank and File.			*Non-Commissioned Officers and Rank and File.*		
Regimental Sergeant Major	1	1	Regimental Surgeon Major	1	1
Band Master Sergeant	1	1	Band Master Sergeant	1	1
Quarter Master Sergeant	1	1	Quarter Master Sergeant	1	1
Troop Sergeant Majors	6	8	Sergeant Instructor of Musketry	1	1
Surgeon Instructor in Fencing	1	1	Pay Master Sergeant	1	1
Pay Master Sergeant	1	1	Armourer Sergeant	1	1
Armourer Sergeant	1	1	Hospital Sergeant	1	1
Saddler Sergeant	1	1	Pioneer Sergeant	1	1
Hospital Sergeant	1	1	Orderly Room Sergeant	1	1
Farrier Major	1	1	Color Sergeants	8	8
Orderly Room Sergeant	1	1	Sergeants	32	32
Trumpet Major	1	1	Drum Major	1	1
Farriers	6	8	Drummers	16	16
Sergeants	18	24	Corporals	40	41
Trumpeters	6	8	Privates (including bandsmen)	780	937
Corporals	24	32			
Privates (including bandsmen)	384	495			
Total Non-Commissioned Officers and Men.	455	586	Total Non-Commissioned Officers and Men.	886	1,044
Total Established Strength	483	620	Total Established Strength	919	1,077

	Rs.		Rs.
Annual cost of a regiment of British Cavalry with *six troops* as at present	5,67,271	Annual cost of a regiment of British Infantry, as at present, with eight companies and 886 strong	5,84,473
Annual cost of a regiment of British Cavalry with *eight troops* as proposed, and detailed in Statement A attached	7,03,369	Annual cost of a regiment of British Infantry, as proposed (war establishment for service in the field) with eight companies, but with 1,044 strong as detailed in Statement A attached.	6,51,752

APPENDIX XXVIII.

Tables shewing barrack accommodation in India and the requirements at stations according to the distribution of the Army proposed by the Commission.

N. B.—These tables can only be considered as approximate.

Statement shewing the additional accommodation due directly to the proposals of the Army Commission which will be required if the garrisons recommended by the Commission are approved.

Stations.	Numbers.		Totals.		Remarks.
	Single Men.	Married Men and Sergeants.	In plains.	In hills.	
Bengal and Punjab Army Corps—					
Darjeeling—					
Infantry	440	84		524	
Artillery	88	20		108	
Nowgong					
Infantry	190	30	220		
Meerut—					
Cavalry	92	11	103		
Delhi—					
Infantry	72	11	83		
Artillery	25	2	27		
Chakrata—					
Infantry	34	20		54	
Ranikhet—					
Infantry	46	29		75	
Jutogh and Subathu—					
Infantry	144	20		164	
Umballa—					
Infantry	144	20	164		
Cavalry	92	15	107		
Mooltan—					
Infantry	17		17		
Ferozepore (Fort)—					
Artillery	25	3	28		
Murree Hills—					
Infantry	440	85		525	
Artillery	74	20		94	
Sialkote—					
Infantry	160	29	189		
Totals for Bengal and Punjab Army Corps			938	1,544	
Madras Army Corps—					
Secundrabad and Trimulgherry—					
Infantry	288	40	328		
Cavalry	104	57	161		
Tonghoo—					
Infantry	72	10	82		
Wellington—					
Infantry	830	105	935		
Belgaum—					
Infantry	133	22	155		
Totals for Madras Army Corps			1,661		
Bombay Army Corps—					
Kurrachee—					
Infantry	175	49	224		
Ahmedabad—					
Infantry	348	69	417		
Baroda—					
Infantry	140	80	220		
Bombay—					
Infantry	36	19	55		
Satara—					
Infantry	36	5	41		
Mhow and Asirgarh—					
Artillery	17	6	23		
Cavalry	38	33	71		
Infantry	38	29	67		
Nusseerabad—					
Infantry	250	55	305		
Aden—					
Artillery and Infantry	144	20	164		
Total for Bombay Army Corps			1,587		
Abstract.					
Bengal and Punjab Army Corps			938	1,544	
Madras Army Corps			1,661		
Bombay Army Corps			1,587		
Grand Total			4,186	1,544	

This additional accommodation will cost probably—

In the hills 1,544 × 1,500 = 23,14000

In the plains 4,186 × 2,500 = 1,04,65,000

Total Rs. ... 1,27,79,000

Statement showing Annual Cost of Repairs to Barrack Buildings at Stations in the Bengal, Punjab, Madras and Bombay Army Corps, which the Army Organization Commission propose to abandon.

Stations.	Annual cost.	Remarks.
Bengal and Punjab Army Corps—	Rs.	
Chunar ...	6,227	
Benares ...	20,753	
Cawnpore (Cavalry) ...	250	
Sitapore ...	13,100	
Roorkee ...	17,264	
Muttra ...	22,900	
Fatehgarh ...	16,030	
Moradabad ...	15,186	
Shajehanpore ...	11,679	
Jhansi ...	7,245	
Sipri ...	1,931	
Kangra ...	1,523	
Jullundur ...	23,041	
Campbellpore ...	16,590	
Total ...	1,73,719	
Madras Army Corps—		
Trichinopoly ...	10,063	
Cannanore ...	22,300	
Thayetmyo ...	24,882	The amounts here entered for Madras and Bombay have not been obtained from statements of actual expenditure, but have been calculated by proportion from the ratio of actual expenditure for repairs, to the number of men accommodated in Bengal and Punjab.
Total ...	57,245	
Bombay Army Corps—		
Ahmednaggar ...	16,530	
Deesa ...	28,188	
Indore ...	3,248	
Nemuch ...	17,951	
Hyderabad ...	16,298	
Total ...	82,215	

Statement showing existing accommodation for British troops in stations in the Bengal and Punjab Army Corps as compared with accommodation that will be required, if the garrisons proposed by the Army Commission are approved.

Garrison.	Existing accommodation.		Proposed strength of garrison		Difference more (existing).		Difference less (required).		Remarks.
	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	
Fort William—									
Artillery ...	120	4	97	18	23	...	...	14	Of this increase 8 only due to Army Commission proposals. Not worth considering.
Infantry ...	1,113	140							
Dum-Dum—									
Infantry ...	987	80	1,320	253	1,509	...	...	22	Not due to proposals of Army Commission.
Barrackpore—									
Infantry ...	729	11							
Artillery ...	264	48	127	28	137	20	...	...	
Darjeeling—									
Infantry ...	..	...	440	84	...	...	440	84	Increase due to proposals of Army Commission.
Artillery ...	83	15	171	38	...	...	88	23	
Dinapore—									
Infantry ...	820	158	440	84	380	74	...	...	
Artillery ...	151	19	143	19	8	...	..	...	
Chunar—									
Infantry ...	93	17	...	...	93	17	...	...	
Invalid Battalion ...	13	1	...	..	13	1	..	...	
Benares—									
Infantry ...	356	54	...	...	356	54	...	...	
Artillery ...	130	32	...	...	130	32	...	...	
Carried over ..									

Statement showing existing accommodation for British troops in stations in the Bengal and Punjab Army Corps as compared with accommodation that will be required if the garrisons proposed by the Army Commission are approved—continued.

Garrison.	Existing accommodation.		Proposed strength of garrison.		Difference more (existing).		Difference less (required.)		Remarks.
	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	
Allahabad—									
Infantry ...	1,080	202	880	169	200	23	...	...	
Artiller ...	222	30	226	46	...	...	4	16	Increase due to proposals of Army Commission, but there is accommodation in Infantry barracks.
Cawnpore—									
Infantry ...	884	147	440	84	444	63	...	...	
Artillery .	120	15	129	28	...	...	9	13	Not due to proposals of Army Commission.
Cavalry ..	162	10	...	...	162	10	...	...	
Nowgong—									
Infantry ..	228	68	550	105	...	...	262	37	Of these the increase due to proposals of Army Commission are— 190 single men. 30 married men.
Artillery ...	132	24	129	28	3	...	...	4	Not due to proposals of Army Commission.
Sitapore—									
Infantry ...	526	100	...	...	526	100	...	...	
Artillery ..	102	21	...	...	102	21	...	...	
Lucknow—									
Infantry ...	1,448	374	1,540	296	...	78	92	...	Of these increases 68 infantry and all the cavalry are due to the proposals of Army Commission, but there is sufficient existing accommodation.
Artillery ...	294	71	258	56	36	15	...	...	
Cavalry ...	486	100	488	107	...	...	2	7	
Fyzabad—									
Infantry ...	768	138	220	42	548	96	...	...	
Artillery ..	...	...	129	28	...	...	129	28	Not due to the proposals of Army Commission.
Pachmarhi—									
Infantry ...	240	22	...	...	240	22	...	...	
Meerut—									
Infantry ...	698	250	440	85	258	165	...	...	
Artillery ...	113	74	479	100	...	...	366	26	Not due to proposals of Army Commission.
Cavalry ...	396	96	488	107	...	...	92	11	Due to proposals of Army Commission.
Delhi—									
Infantry ...	360	74	440	85	...	...	80	11	All due to proposals of Army Commission, except 8 single men of Infantry and 8 single men of Artillery.
Artillery ...	64	16	97	18	...	...	33	2	
Agra—									
Artillery ..	137	28	129	28	8	...	...	...	
Infantry ...	824	147	880	169	40	...	...	18	Due to Army Commission's proposals, but there is sufficient accommodation in other barracks.
Fort Infantry ...	96	4	49	9	11	7	...	...	
„ Artillery ...	60	16							
Bareilly—									
Infantry ...	575	94	440	85	135	9	...	...	
Artillery ...	132	18	129	28	3	...	...	10	Not due to proposals of Army Commission.
Roorkee—									
Infantry ...	440	51	. .	...	440	51	...	...	
Muttra—									
Cavalry ...	427	85	...	...	427	85	...	...	
Fatehgarh—									
Infantry ...	350	54	...	...	350	54	...	...	
Morar—									
Artillery ...	312	61	258	56	54	5	...	...	
Infantry ...	720	190	1,210	232	...	23	238	...	Not due to proposals of Army Commission.
Gwalior—									
Infantry .	252	65							
Artillery ...	72	14	49	9	23	5	...	...	
Chackrata—									
Infantry ...	846	142	880	169	...	...	34	27	Due to proposals of Army Commission.
Moradabad—									
Infantry ...	200	27	...	...	200	27	...	...	
Shajehanpore—									
Infantry ...	320	58	...	...	320	58	...	...	
Artillery ...	64	4	...	...	64	4	...	...	
Ranikhet and Choubattia—									
Infantry ...	1,274	153	1,320	253	...	...	46	100	Of this, the increase due to proposals of Army Commission is 46 single men. 29 married men.
Jhansie—									
Infantry ...	366	45	...	...	366	45	...	...	
Artillery ..	99	19	...	...	99	19	...	...	
Sipri—									
Infantry ...	128	13	...	...	128	13	...	...	

Statement showing existing accommodation for British troops in stations in the Bengal and Punjab Army Corps, as compared with accommodation that will be required if the garrisons proposed by the Army Commission are approved—continued.

Garrison.	Existing accommodation.		Proposed strength of garrison.		Difference more (existing).		Difference less (required).		Remarks.
	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	
Dagshai—									
Infantry ...	930	148	880	169	50	...	...	21	Increase of 20 married men due to proposals of Army Commission, but there is sufficient accommodation at the station.
Kangra—									
Infantry ...	42	13	...	...	42	13	...	...	
Jullunder—									
Infantry ..	672	100	...	...	672	100	...	...	
Artillery ...	114	17	...	...	114	17	...	...	
Jutogh—									
Artillery ...	84	15	74	20	10	...	...	5	No extra accommodation required for this.
Infantry ...	240	10	880	169	...	...	206	91	Of this increase the numbers due to proposals of Army Commission are 144 single men 20 married men.
Subathu—									
Infantry ...	434	68							
Umballa—									
Infantry ...	484	149	880	169	...	...	396	20	Increase of 144 single men and of all married men due to proposals of Army Commission.
Artillery ...	232	60	258	56	...	4	26	...	Not due to proposals of Army Commission.
Cavalry ..	396	92	488	107	...	...	92	15	Due to proposals of Army Commission.
Amritsar—									
Infantry ...	261	24	220	42	113	...	...	14	Accommodation sufficient.
Govindghur Fort—									
Infantry ...	72	4							
Artillery ...	72	4	97	18	...	...	25	14	
Mooltan—									
Infantry ...	669	88	770	148	...	...	17	31	Increase in single men only due to proposals of Army Commission.
Fort Infantry ...	84	29							
,, Artillery ...	128	22	129	28	...	...	1	6	Not due to proposals of Army Commission.
Mean Meer—									
Artillery ...	490	84	129	28	361	56	...	...	Accommodation more than sufficient.
Infantry ...	720	140							
Lahore Fort—			880	169	40	...	...	10	
Infantry ..	200	19							
Artillery ...									
Ferozepore—									
Artillery ..	182	24	129	28	3	...	...	4	Not due to proposals of Army Commission.
Infantry ...	758	137	660	127	210	14	...	...	
Fort Infantry ...	112	4							
,, Artillery ...	64	12	97	18	...	...	33	6	Increase of 25 single and 3 married men due to proposals of Army Commission.
Rawal Pindi—									
Artillery ...	144	26	330	72	...	...	186	46	Increase due to proposals of Army Commission 121 single men. 25 married men.
Cavalry ..	504	88	488	107	16	...	...	19	Increase of 16 married men due to proposals of Army Commission.
Infantry	720	140	440	85	352	59	...	...	
Fortified Enclo. Infantry ...	72	4							
,, Artillery ...	72		49	9	23	...	...	5	Due to proposals of Army Commission.
Murree Hills—									The accommodation at the station is sufficient for the proposed garrison.
Infantry ...	709	33	1,320	254	...	...	611	221	Increase due to proposals of Army Commission are 440 single and 85 married men.
Artillery ...	88	11	222	60	...	...	134	49	Increase due to proposals of Army Commission are 74 single and 20 married men.
Attock—									
Infantry ..	112	...	110	21	2	...	...	21	Not due to proposals of Army Commission.
Artillery .	112	...	49	9	63	...	...	9	
Campbellpore—									
Infantry ...	280	20	...	...	280	20	...	...	
Artillery ...	88	11	...	...	88	11	...	...	
Nowshera—									
Infantry ..	880	174	770	148	110	26	..	...	
Artillery ...	...	...	129	28	...	...	129	28	Not due to proposals of Army Commission.
Sialkote—									
Infantry ...	720	140	880	169	...	...	160	29	Due to proposals of Army Commission.
Artillery ...	124	40	129	28	...	12	5	...	Not due to proposals of Army Commission.

Statement showing existing accommodation for British troops in stations in the Bengal and Punjab Army Corps, as compared with accommodation that will be required if the garrisons proposed by the Army Commission are approved—concluded.

Garrison.	Existing accommodation.		Proposed strength of garrison.		Difference more (existing.)		Difference less (required.)		Remarks.
	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	
Peshawar—									
Artillery ...	388	104	258	56	130	48	...	...	
Infantry ...	1,308	173	880	169	782	22	...	...	
Fortified Enclo. Infantry	322	17							
Fort Infantry ...	32	1							
Kurram—									
Infantry ...	Not known		1,760	338	...	...	1,760	338	Due to causes not under the control of the Army Commission.
Artillery ..	Not known		203	48	...	...	203	48	
Dera Ishmael Khan—									
Infantry ...	Not known		110	21	...	...	110	21	
GENERAL ABSTRACT.									
Infantry ...	32,630	5,477	27,761	5,436	10,692	1,513	5,823	1,472	
Artillery ..									
Cavalry ...	2,371	471	1,952	428	605	95	186	52	
Total ...	35,001	5,948	29,713	5,864	11,297	1,608	6,009	1,524	

Statement showing existing accommodation for British troops in stations in the Madras Presidency, as compared with accommodation that will be required if the garrisons proposed by the Army Commission are approved.

Secunderabad and Trimulgherry—									
Artillery ...	536	73	459	100	77	...	...	27	Not due to Army Commission.
Cavalry ..	384	50	488	107	...	...	104	57	Of the increase of cavalry that due to proposals of Army Commission. — All single men, 16 married men
Infantry ...	1,408	226	1,760	338	...	...	352	112	Due to proposals of Army Commission. — 288 single men, 40 married men.
Bellary—									
Artillery ..	111	31	129	28	...	3	18	...	Existing accommodation sufficient.
Infantry ..	1,077	96	440	85	637	11	...	...	
Bangalore—									
Artillery ..	443	70	387	84	56	...	...	14	Existing accommodation sufficient.
Cavalry ..	462	88	...	...	462	88	...	...	
Infantry ...	777	144	880	169	...	..	103	25	
Trichinopoly—									
Artillery ...	124	26	...	...	124	26	..	...	
Infantry ...	189	8	...	...	189	8	...	...	
Cannanore—									
Infantry ...	696	73	...	...	696	73	...	...	
Madras—									
Artillery ..	324	51	452	92	...	...	128	41	Existing accommodation sufficient.
Infantry .	584	92	440	85	144	7	...	...	
Rangoon—									
Artillery ...	133	32	97	18	46	14	...	...	
Infantry ...	966	94	660	127	306	...	...	33	Existing accommodation sufficient
Thayetmyo—									
Artillery ...	85	18	123	29	..	...	38	11	Existing accommodation sufficient.
Infantry ..	695	60	440	85	255	...	...	25	
Tonghoo—									
Artillery ..	169	14	123	29	46	...	...	15	Existing accommodation sufficient.
Infantry ..	353	42	440	85	...	...	87	43	Of this increase, that due to proposals of Army Commission — 72 single men. 10 married men.
Wellington—									
Infantry ..	490	148	1,320	253	...	..	830	105	Due to proposals of Army Commission.
Port Blair—									
Infantry ...	150	1	220	42			70	41	Not to be provided.
Belgaum—									
Artillery ...	132	24	129	28	3			4	No increase due to Army Commission.
Infantry ...	747	147	880	169	...	18	133	22	Due to proposals of Army Commission.
Pallaveram—									
Artillery ...	37	...	..	...	37	...			
Total ..	11,072	1,608	9,867	1,953	3,078	248	1,863	575	
GENERAL ABSTRACT.									
Artillery ...	2,094	339	1,899	408	389	43	184	112	
Cavalry ...	846	138	488	107	462	88	104	57	
Infantry ...	8,132	1,131	7,480	1,438	2,227	117	1,575	406	

Statement showing existing accommodation for British troops in stations in the Bombay Presidency, as compared with accommodation that will be required if the garrisons proposed by Army Commission are approved.

Garrison.	Existing accommodation.		Proposed strength of garrison.		Difference more (existing.)		Difference less (required.)		Remarks.
	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	Single men.	Sergeants and married men.	
Above Dadur—									
Artillery ...	...	...	389	93	...	...	389	93	Due to causes beyond control of Army Commission.
Infantry ...	...	...	880	169	...	...	880	169	
Kurrachee—									
Artillery ...	123	30	129	28	...	2	6	...	No increase due to Army Commission.
Infantry ...	705	120	880	169	...	...	175	49	Due to Army Commission.
Ahmedabad—									
Artillery ...	150	20	129	28	21	...	...	8	No increase due to Army Commission.
Infantry ...	92	16	440	85	...	...	348	69	Increase due to proposals of Army Commission.
Baroda—									
Artillery ... / Infantry ...	300	4	440	84	...	...	148	80	Increase due to Army Commission.
Bombay—									
Artillery ...	200	40	194	36	6	4	...	...	
Infantry ...	404	66	440	85	...	...	36	19	Increase due to Army Commission.
Poona and Kirkee—									
Artillery ..	460	102	387	84	73	18	...	...	
Infantry ..	1,840	252	1,100	211	740	41	...	...	
Satara—									
Infantry ...	140	36	220	42	...	...	80	6	Increase due to proposals of Army Commission { 36 single men. 5 married men.
Mhow and Asirgarh—									
Artillery ...	184	38	201	44	...	...	17	6	Increase due to proposals of Army Commission.
Cavalry ...	450	74	488	107	...	...	38	33	
Infantry ...	842	140	880	169	...	...	38	29	
Nusseerabad—									
Artillery .	148	27	129	28	19	...	..	1	
Infantry ..	630	114	880	169	...	...	250	55	Due to proposals of Army Commission.
Kamptee, Nagpore and Seroncha—									
Artillery ..	300	42	258	56	42	...	...	14	Existing accommodation sufficient.
Infantry ...	662	120	440	85	222	37	...	...	
Aden—									
Artillery ... / Infantry ...	696	128	194 / 880	36 / 169	...	...	378	77	Of this increase only 144 single and 20 married men due to Army Commission.
Ahmednaggur—									
Artillery ...	132	21	...	...	132	22	...	...	
Infantry ...	312	104	...	...	312	104	...	...	
Deesa—									
Artillery ...	132	26	...	...	132	26	...	...	
Infantry ...	692	122	...	...	692	122	...	...	
Indore—									
Infantry ...	96	16	...	...	96	16	...	...	
Neemuch—									
Artillery ...	132	21	...	...	132	21	...	...	
Infantry ...	432	34	...	...	432	34	...	...	
Hydrabad—									
Artillery ... / Infantry ...	480	82	...	...	480	82	...	...	
Saugor—									
Artillery ..	226	20	129	28	97	...	...	8	No increase due to Army Commission.
Infantry ...	260	36	440	85	...		180	49	
Total ...	11,220	1,852	10,547	2,090	3,628	529	2,955	765	

GENERAL ABSTRACT.

Artillery ... / Infantry ..	10,770	1,778	10,059	1,983	3,628	529	2,917	732
Cavalry ..	450	74	488	107	.	...	38	33

APPENDIX XXIX.

Various returns and papers referring to the British Army in India.

Return shewing ages and service of men who have come out to India within the last three years.

Corps	ON REACHING HEAD-QUARTERS.																Remarks.
	Age.									Service.							
	Under 17 years.	Over 17 and under 18 years.	Over 18 and under 19 years.	Over 19 and under 20 years.	Over 20 and under 21 years.	Over 21 and under 25 years	Over 25 and under 30 years.	Over 30 years.	Total.	Under 1 year.	Over 1 and under 2 years.	Over 2 and under 3 years.	Over 3 and under 4 years.	Over 4 and under 5 years	Over 5 and under 6 years.	Over 6 years.	Total	
Battalion, 1st Foot		.		15	33	60	11	8	127	64	25	16	8			14	127	
,, 2nd ,,	3	2	11	9	184	411	147	65	832	..	73	384	168	38	13	161	832	Regiment arrived in India, 1st March 1878
,, 3rd ,,	2	.	...	14	14	27	11	5	73	14	37	7	1	1	1	12	73	
,, 5th ,,		1	3	4	44	111	48	13	223		34	92	54	14	4	25	223	
,, 6th ,,	.	..		11	59	114	28	4	216	126	51	10	10	2	1	16	216	
,, 6th ,,	12	3	27	47	189	363	113	62	816	99	315	204	55	17	9	117	816	Regiment arrived in India, 26th October 1878.
,, 7th ,,	.	.		76	114	191	28	2	411	43	235	84	30	11	4	4	411	
,, 8th ,,	8	11	9	69	183	471	117	49	917	270	366	76	43	56	6	100	917	Regiment arrived in India, 26th October 1877.
,, 9th ,,	7	2	3	53	65	142	21	3	296	35	103	88	48	7	4	12	296	
,, 11th ,,	3	7	20	112	240	260	105	111	858	268	280	69	21	3	40	177	858	Regiment arrived in India, 14th March 1877.
,, 12th ,,	12	5	5	90	197	399	130	180	1,018	184	220	199	37	106	31	241	1,018	Regiment arrived in India, 24th October 1876
,, 13th ,,	6	..	130	94	47	256	145	243	921	1	206	185	50	235	42	202	921	Regiment arrived in India, 14th March 1878.
,, 14th ,,	5	..	...	35	44	52	13	4	153	6	70	45	16	5	2	12	153	
,, 14th ,,	5	...	9	141	196	290	126	22	789	67	309	260	44	8	12	89	789	Regiment arrived in India, 7th November 1878.
,, 15th ,,	3	1	4	36	58	146	30	1	279	108	66	57	26	12	3	7	279	
,, 16th ,,	.	1	6	22	51	58	13	5	156	27	74	25	12	4	3	11	156	
,, 17th ,,	4	2	...	27	71	74	18	7	203	72	70	40	7	...	3	11	203	
,, 17th ,,	8	10	34	55	180	320	238	134	979	384	121	100	42	15	3	314	979	Regiment arrived in India, 8th November 1876.
,, 18th ,,	1	1	2	39	75	144	20		282	6	108	82	73	10	.	3	282	
,, 21st ,,	..	2	2	20	39	97	33	14	107	30	105	46	6	1	.	19	207	
,, 22nd ,,	11	1	2	55	89	147	19	4	328	115	182	15	7	2	2	5	328	
,, 25th ,,	1	..	2	49	72	113	40	24	301	32	154	56	6	5	12	36	301	
Foot	7	5	8	89	213	116	103	331	872	57	370	189	51	21	3	181	872	Regiment arrived in India, 4th March 1879.
,, ...	3	1	2	45	93	143	41	11	339	160	101	30	10	4	8	26	339	
,, ...	...	...	1	13	49	144	50	21	278	75	127	19	15	2	6	34	278	
,, ..	1	1		36	64	91	11	5	209	30	123	21	20	11	1	3	209	
,, ...	3	..	1	52	108	180	45	5	394	110	185	40	37	3	4	15	394	
,, ...	3	2	6	44	97	150	42	9	353	57	173	76	18	3	3	23	353	
,, ...	5	1	5	68	94	93	22	10	298	118	103	40	7	5	2	23	298	
,, ...	5	4	1	24	36	37	15	4	126	14	81	22	3			6	126	
,, ...	6	.	2	37	85	219	57	15	421	143	165	37	42	12	4	18	421	
,, ...	3	2	2	40	109	193	37	4	396	72	224	59	26	3	1	11	396	
,, ...		1	4	15	39	131	71	4	265	2	28	134	74	17	1	9	265	
Battalion, 60th Foot	2	.	..	42	101	127	36	1	309	13	215	49	8	13	2	9	309	
,, 60th ,,	15	2	9	106	201	485	106	95	1,019	276	116	151	138	93	41	204	1,019	Regiment arrived in India, 6th December 1876.
Foot	7	2	5	23	91	107	10	2	247	29	83	72	49	3	3	8	247	
,, ...	...	1	2	27	78	173	33	7	321	..	134	147	28	4	1	7	321	
,, ...	4	3	2	43	67	147	37	11	314	109	119	47	22	2	1	14	314	
,, ...	12	2	1	43	99	118	37	13	325	97	106	66	23	7	4	23	325	
,, ...	2	2	6	55	58	158	20	2	303	105	122	54	16	3	1	2	303	
,, ...	6	7	15	27	107	191	86	7	446	136	192	68	22	7	7	14	446	
,, ...	7	.	5	81	109	150	20	14	386	179	164	9	6	5	4	19	386	
,, ...	5	.	10	28	97	131	32	2	305	15	107	139	26	13	...	5	305	
,, ...	...	5	.	2	26	57	13	2	105	29	31	21	13	3	2	6	105	
,, ...	6	14	16	19	190	390	155	106	896	76	120	199	129	101	52	219	896	Regiment arrived in India, 20th March 1879.
,, ...	5	1	9	28	61	153	40	1	298	32	118	115	30	.	..	3	298	
,, . .	..	1	4	35	44	69	23	6	182	17	65	54	32	1	2	11	182	
,, ..	5	2	5	44	102	126	18	8	310	43	141	68	32	11	.	15	310	
,, . ..	...	..	10	56	87	107	40	2	302	52	142	74	13	..	2	19	302	
,, . .	6	..	1	2	86	128	33	10	266	53	64	85	23	11	1	19	266	
h ,, ...	4	7	17	67	102	346	188	129	860	107	248	164	43	84	26	193	860	Regiment arrived in India, 10th November 1877
Battalion Rifle Brigade.	2	..	..	7	67	194	60	9	339	48	160	84	21	9	3	14	339	
Total ..	215	115	417	2,271	5,004	9,106	2,935	1,806	21,869	4,207	7,325	4,473	1,740	1,003	380	2,741	21,869	

OFFICE OF ADJUTANT GENERAL IN INDIA,
HEAD-QUARTERS,
Simla, 17th October 1879.

G. R. SHAKESPEAR, *Captain,*
Deputy Assistant Adjutant General.

Time-expired Men sent home from India (three Presidencies).

Year (trooping season).	Arm.	Service in the Army.			Service in India.						
		Under 6 years.	6 years and upwards.	Total.	Under 2 years.	Under 3 years.	Under 4 years.	Under 5 years.	Under 6 years.	6 years and upwards.	Total.
1875-76	Artillery	....	179	1,525	...	6	2	7	1	163	179
	Cavalry	...	66		...	9	1	1	2	53	66
	Infantry	...	1,280		16	35	73	174	170	812	1,280
	Total	...	1,525		16	50	76	182	173	1,028	1,525
1876-77	Artillery	...	227	2,285	1	5	1	3	15	202	227
	Cavalry	...	108		...	9	19	...	1	79	108
	Infantry	...	1,550		41	214	172	292	360	871	1,950
	Total	...	1,885		42	228	192	295	376	1,152	2,285
1877-78	Artillery	1	82	2,433	1	1	7	1	1	72	83
	Cavalry	...	76		1	7	25	8	...	35	76
	Infantry	...	1,553		88	198	393	326	852	417	2,274
	Total	...	1,711		90	206	425	335	853	524	2,433

Presidency.	CORPS	BELONGING TO SUB-DISTRICT BRIGADE.				BELONGING TO THE REGIMENT				TOTAL.				CORPS.	NUMBER OF WOMEN AND CHILDREN ON 1st JULY 1873	
		LONG SERVICE.		Short service.	Total.	LONG SERVICE		Short service.	Total.	LONG SERVICE		Short service.	Total.			
		1st period	2nd period			1st period.	2nd period			1st period.	2nd period.				Women.	Children.
BENGAL.	2-1 Foot ...	28	38	92	158	83	253	3	339	111	291	95	497	2-1 Foot ...	84	153
	2-2 „ ...	31	39	569	639	127	46	26	199	158	85	595	838	1-3 „ ...	90	161
	1-3 „ ...	...	...	108	108	100	291	...	391	100	291	108	499	1-5 „ ...	80	146
	1-5 „ ...	17	22	277	316	86	469	45	600	103	491	322	916	1-6 „ ...	92	134
	1-6 „ ...	35	20	239	294	88	347	14	449	123	367	253	743	1-8 „ ...	59	101
	2-6 „ ...	54	23	641	718	51	38	1	90	105	61	642	808	1-11 „ ...	91	177
	2-8 „	69	76	672	817	53	31	25	109	122	107	697	926	2-12 „ ...	82	141
	2-9 „ ...	75	...	372	447	240	139	55	434	315	139	427	881	1-14 „ ...	77	136
	1-12 „ ...	144	76	488	708	66	94	72	232	210	170	560	940	1-17 „ ...	109	193
	2-14 „ ...	58	40	713	811	66	16	1	83	124	56	714	894	2-19 „ ...	100	190
	1-17 „ ..	40	68	292	400	166	348	...	514	206	416	292	914	2-25 „ ...	77	151
	1-18 „ ...	147	81	347	575	213	95	1	309	360	176	348	884	26 „ ...	68	109
	2-22 „ ..	2	...	344	346	332	172	50	554	334	172	394	900	36 „ ...	51	93
	1-25 „ ...	51	126	526	703	56	53	19	128	107	179	545	831	37 „ ...	101	136
	34 „ ...	120	128	480	728	134	46	4	184	254	174	484	912	39 „ ...	115	218
	39 „ ...	52	50	233	335	123	436	...	559	175	486	233	894	40 „ ...	83	113
	40 „ ...	21	44	384	449	309	93	54	456	330	137	438	905	41 „ ...	95	176
	51 „ ...	108	69	429	606	114	75	...	189	222	144	429	795	51 „ ...	111	125
	54 „ ...	40	30	392	462	269	246	...	515	309	276	392	977	54 „ ...	101	139
	59 „ ...	39	120	342	501	125	340	29	494	164	460	371	995	55 „ ...	85	171
	2-60 „ ...	...	...	10	10	151	479	299	929	151	479	309	939	58 „ ..	57	142
	4-60 „ ...	145	84	589	818	13	12	35	60	158	96	624	878	2-60 „ ...	90	182
	62 „ ...	115	41	277	433	85	308	26	419	200	349	303	852	62 „ ...	89	183
	63 „ ...	39	...	360	399	96	410	...	506	135	410	360	905	63 „ ...	97	172
	65 „ ...	45	29	296	370	154	371	1	526	199	400	297	896	65 „ ...	106	168
	68 „ ...	19	33	441	493	272	52	...	324	291	85	441	817	70 „ ..	86	139
	70 „ ...	59	33	362	454	194	233	5	432	253	266	367	886	72 „ ...	109	157
	72 „ ...	17	9	399	425	157	318	46	521	174	327	445	946	85 „ ...	92	197
	73 „ ...	32	38	214	284	74	313	11	398	106	351	225	682	92 „ ...	81	158
	81 „ ...	67	71	482	620	96	197	36	329	163	268	518	949	96 „ ..	79	165
	85 „ ...	37	7	307	351	79	447	12	538	116	454	319	889	106 „ ...	85	154
	92 „ ...	40	28	334	402	75	376	4	455	115	404	338	857	109 „ ...	98	174
	100 „ ...	81	51	560	692	65	90	2	157	146	141	562	849			
	4 Rifle Brigade ...	...	...	...	...	318	209	447	974	318	209	447	974			
	Totals ...	1,827	1,474	12,571	15,872	4,630	7,443	1,323	13,396	6,457	8,917	13,894	29,268	Total ..	2,820	4,954
										15,374						

Return shewing the "Terms of Service" of Non-Commissioned Officers and Men, &c.,—(continued.)

Presidency.	CORPS	BELONGING TO SUB-DISTRICT BRIGADE.				BELONGING TO THE REGIMENT.				TOTAL.				CORPS.	NUMBER OF WOMEN AND CHILDREN ON 1st JULY 1873.	
		Long service.		Short service.	Total.	Long service.		Short service.	Total.	Long service.		Short service.	Total.		Women.	Children.
		1st period.	2nd period.			1st period	2nd period.			1st period.	2nd period.					
Madras.	2-13 Foot ...	58	22	694	774	25	100*	..	125	83	122	694	899	1-21 Foot ...	118	229
	2-16 „	98	48	437	583	170	134	1	305	268	182	438	888	43 „ ...	83	100
	1-21 „	34	..	240	274	111	351	...	462	145	351	240	736	44 „ ...	111	137
	33 „ ...	136	143	530	809	84	43	7	134	220	186	537	943	45 „	130	244
	43 „	60	50	272	382	198	186	73	457	258	236	345	839	48 „ ...	92	175
	44 „ ...	57	62	248	367	275	238	..	513	332	300	248	880	67 „ ..	91	138
	48 „ ...	48	50	142	240	254	206	8	468	302	256	150	708	76 „ ...	106	197
	67 „ ...	12	6	327	345	391	108	82	581	403	114	409	926	89 „ ...	157	302
	89 „ ...	74	57	331	462	290	194	1	485	364	251	332	947	107 „ ...	69	133
	Totals ...	577	438	3,221	4,236	1,798	1,560	172	3,530	2,375	1,998	3,393	7,766	Total ...	957	1,655
										4,373						
Bombay.	2-7 Foot ...	328	150	223	701	159	28	1	188	487	178	224	889	1-2 Foot ...	97	197
	2-11 „ ...	98	45	595	738	37	87	42	166	135	132	637	904	49 „ ...	86	151
	1-14 „ ...	51	163	104	318	63	112	3	178	114	275	107	496	56 „ ...	117	156
	2-15 „ ...	95	40	492	627	121	138	5	264	216	178	497	891	59 „ ...	78	147
	2-17 „ ...	83	53	486	622	104	61	12	177	187	114	498	799	66 „ ...	108	152
	66 „ ...	69	62	371	502	254	188	...	442	323	250	371	944	68 „ ...	105	163
	78 „ ...	78	60	663	801	27	55	10	92	105	115	673	893	83 „ ...	60	119
	83 „ ...	104	286	290	680	72	176	...	248	176	462	290	928	105 „ ...	35	55
														108 „ ...	120	249
	Totals	906	859	3,224	4,989	837	845	73	1,755	1,743	1,704	3,297	6,744	Total ...	806	1,389
										3,447						
	Grand Total ...	3,310	2,771	19,016	25,097	7,265	9,848	1,568	18,681	10,575	12,619	20,584	43,778	Grand Total ..	4,583	7,998
										23,194						

Number of women and children on 1st July 1873 and 1879.

Arm.	Presidency.	1873.		1879.		Decrease.		
		Women	Children.	Women.	Children.	Women.	Children.	
Cavalry ...	Bengal ...	345	596	273	460	72	136	Monthly allowance of Rs. 2-8 per child of an effective British soldier serving in India, §2074, Pay Code.
	Madras ...	132	270	105	225	27	45	
	Bombay ...	62	125	32	56	30	69	
	Total ...	539	991	410	741	129	250	
Infantry ...	Bengal ...	2,820	4,954	1,669	3 644	1,151	1,310	European women Rs 8 each; all other women, natives of India, Rs. 6-8, as subsistence allowance, § 2067, Pay Code.
	Madras ...	957	1,655	656	1 241	301	414	
	Bombay ...	806	1,389	481	944	325	445	
	Total ...	4,583	7,998	2,806	5,829	1,777	2,169	For full and half rations, see § 2084-85, besides carriage on line of march.
	Grand Total ...	5,122	8,989	3,216	6,570	1,906	2,419	

Memorandum on a separate British Army in India.

1. This will depend mainly on the result of the British Army Re-organization Committee now ordered to assemble at Home.

2. As indicated in my notes on it, paragraph 7, the above measure would, it is believed, prove politically and financially advantageous. The first, as it would give a force to this country which would not be liable to a recall for any emergency at Home, on the continent, or to the colonies; but, as it is, the British troops out here would, and naturally, be withdrawn for any imperial, continental, or colonial emergency, thus lowering the strength of the European force in India to a dangerous political minimum; on the second point, financial,* there can be no question that it would be cheaper to have a standard army than one perpetually on the relief to and fro. That there need be no military deterioration is proved by the excellent discipline always maintained in the Company's old European force, as may be instanced in the cavalry, artillery, and infantry now embodied in Her Majesty's Royal Army. British recruits should not be sent out to India till the age of 20; there would be a great saving in mortality and increase to the manhood of England.

* Here it might be noted that volunteer forces might be encouraged to be enlisted separately of British and Eurasian regiments; perhaps "mixed corps" would be the best.

That this measure would be popular is undoubted and has been proved already in the old Company's army; as also that it would tend to morality; for under the present régime, it is absolutely necessary that only a small percentage of wives can possibly accompany their husbands out here; nor do the "short-service" men marry in India from force of circumstances; the obvious and necessary, and, it must be recognized, *natural* consequences are fornication, perhaps worse; a lowering of moral tone; disease, which assuredly will affect unborn generations; an early physical decay and invaliding, with pauperism and a cancer in the body politic, and an early death; whereas, in a local army, marriage would be sanctioned in much larger numbers, as was the case formerly, thus avoiding, in a great measure, the above consequences. It also may be a mooted point whether, if India is ever to be colonized, the most suited colonists would not prove to be offspring of British fathers and Eurasian mothers, even of native women; they would, in a greater degree than the pure European element, be inured to the climate. Eurasian regiments might also be raised; they ought to prove, with proper management and with some portion of British blood, capable of mastering the pure Aryan element, an improvement on the Asiatic against the Asiatic.

3. Recruiting might be commenced at Home at the age of eighteen. Establishing depôts, where they might be drilled and sent out to India at twenty, a considerable number to be maintained at Home for cavalry, artillery, engineers, and infantry to fill up vacancies at once. Twenty years' service in India, ten in the Home "reserve" after it, with the two previous to coming out, would make a total of thirty-two years, and age at pension would then be fifty. After ten years' Indian service, if necessary, a soldier might be sent Home and relieved from its regimental reserve for five, returning again for the same period.

4. Pay as in the Royal* Army whilst out in India, some portion must, and always should, do so as to relieve the English Exchequer, and as a school of experience for the practical duties of a soldier and chances of active service. But the local army for India, which would always supply, as before, the non-commissioned staff of the army, also its warrant officers for all departments, should always be maintained at half the strength of the Royal one. Pensions according to Indian rates if elected to remain in India, English rates if at Home; as also for their families the sums with their pay whilst in England,—a *sine qud non*, a widow and orphan fund from pay deductions, the former forfeiting it on re-marriage or immorality; the latter, boys and girls at sixteen. Father continuing to pay to the funds, after being pensioned, optional.

* Would make it permissible to volunteer for the local army *at the time of relief home;* journey expenses thus saved to Government. An actuary would soon strike out a mean of pension for such exchanges according to length of Home and Indian service and difference of climate.

5. Here again is advocated the "brigade regiment" method, *viz.*, but with three guns, two squadrons, and 800 infantry, one company being pioneers, with an engineer officer attached; carriage sufficient to render the above an effective "moveable column" at the shortest notice.

6. Now comes the apparent difficulty, but it must be a real one, *viz.*, the efficiency of this local army. All candidates to state at the time of their examination that they were desirous of belonging to it. Those for the scientific branches, engineers and artillery, to be educated at Woolwich; for cavalry and infantry, as at

N. B.—It need scarcely be noted that there would be regiments of cavalry, artillery and engineers besides.

present, according to their status, at the public examinations, according to which, to have the option of electing for either, if not clashing with the public service; a certain number of direct commissions being given, gratis, if duly qualified: exchanges between the Royal and local armies to be allowable without any expense to the State, and agreeable to any personal arrangements between the parties themselves. A Government actuary to decide the different rates of pension consequent on such exchanges. The pay the same as for the Royal Army in India, pensions as ruled for those of Her Majesty's Indian forces, and a compulsory one for widows and orphans.

7. It might be worth consideration whether one general "Indian military college" should not be established for the education of these young gentlemen, from the engineer to the infantry course, something on the footing of the former Addiscombe College, present Woolwich, and the military branch of the Oxford one lately established.

8. These few brief notes are from the experience of the undersigned whilst in Her Majesty's late 1st European Bengal Fusiliers, present 101st Regiment, and which he joined from staff employ during the Burmese war of 1852-55.

H. BOISRAGON, *Colonel*,
Commandant, 4th Sikhs, and Commanding Dera Ismail Khan District, Punjab Frontier Force.

ADDENDA.

1. A matter for consideration also, whether the Commanders-in-Chief of Madras and Bombay, with their head-quarter staff, could be dispensed with. It certainly would be a financial saving, and probably the work would be as well, if not better, carried out by one Commander-in-Chief and staff for all India. One for Her Majesty's British Army is found quite sufficient, ruling from the Horse Guards the troops all over the world.

2. The native troops of the above Presidencies might be considerably reduced, leaving sufficient to furnish them to watch the main points and the governments of native rulers, such as at Secunderabad, Hyderabad, &c., &c. (politically should all such be considerably reduced?), and to supply them for Burma, Sindh and Aden, the Straits and China, and Bay of Bengal.

H. B.

Note by Colonel H. BOISRAGON, *4th Sikhs, in regard to the British Army.*

The short-service system has been tested, the result being a committee for its re-organization. It applies to continental nations, with their enforced conscriptions, and possessing no colonies; but with us, where the military profession is voluntary, and in the dominions of the Queen-Empress on whose Empire "the sun never sets," this method is not so feasible.

2. The term of service might be—

10	years	with the	1st battalion.
5	"	"	2nd "
5	"	"	3rd "
5	"	"	with the reserve.

Total 25 years, which would not prove too long a service, a considerable portion of it being passed in England and in some of its healthier colonies. Say a lad enlisted at 20 (he should not much before), his age on retiring on a pension would be 45—sufficiently young amd vigorous for manual labour, though, perhaps, too old for civil-life competition, which, however, he might still attain to (laying the maximum age for it about 35) by buying his discharge after fifteen years' service; few would do it. The 3rd battalion is advocated for two reasons, *viz.*—

(*a*) If both 1st and 2nd battalions are on active service abroad, they would be fed by the 3rd battalion at Home.

(*b*) Which might also be considered as the 1st reserve, which might be worked on the regimental, instead of a general, system.

The 2nd, or last, reserve might be worked on the national county method.

The men might be encouraged from this latter to volunteer for the militia or police force constabulary, retaining their pensions. Volunteers, yeomanry, and other cognate forces are admirable auxiliaries, but they should be kept separate from the calculation for the regular army,

3. Which should serve ten years in India, or in rotation in it and the other colonies.

4. It might be a point for consideration, especially for foreign service, particularly in India, whether in future the army "unit" should not be represented by the "three arms of the service"—artillery, cavalry and infantry—consisting of 2 guns, 1 squadron, 800 infantry, one company pioneers, with an engineer officer attached, a "brigade regiment," including the two scientific branches, engineers and artillery; it would thus be "self-supporting," and in India might have regimental carriage attached, which would render it capable of marching at the shortest notice.

5. Regiments of "mounted infantry" might be raised, a separate body, as are the Rifle Brigade.

6. It is not presumed herein to enter into any question of pay for each of these bodies respectively, which is a matter of finance to be adjusted only by the Home Government.

7. But it might be suggested here, that financially, politically, and in a military point of view, it would be a great saving, in all respects both in this country and to the manhood and vitality of England, if recruits were not entertained before the age of 20, and served out here for ten years at least. At present boys come out at sixteen, consequently the mortality is considerable; the "short-service" men are perpetually on the sea to and fro at an enormous expense, and whilst so journeying, either this country or at Home, or both, are deprived of the services of so many men in the interim.

8. The position and pensions of the commissioned officers have already and lately been liberally dealt with, and it is not therefore contemplated that this question will be re opened before the present

Committee, but that if a more extended scale of payment for widows and orphans might be entertained, a subscription towards this might be made compulsory on officers in the service, voluntary when retired.

9. As regards the non-commissioned ranks and privates, this should certainly be thoroughly entertained, it is demanded on every point of view, a compulsory subscription being insisted on whilst actively serving; when retired, to cease; the Government paying the pension on the death of the husband, and should the widow marry, or lead an immoral life, lapsing to the State.

ADDENDA.

Under the supposition that India had its separate British army, Ceylon might be included in it, also perhaps Burma, the Straits, China, Japan and Aden; thus the only foreign and colonial service, the great bulk of the Royal Army would have, would be the Mediterranean and Heligoland, Cape, African, and Atlantic possessions and Mauritius and West India Islands.

2. Or it might form a separate force for foreign service, as above enumerated, leaving only Ceylon to India and also Burma and the islands in the Bay of Bengal, and, it might be advisable also, Aden, the Straits and China, under the direct and indirect supervision of the Government of India, where the Imperial colonial system is not purely in operation.

3. The Dominion States in Canada, Australia, and New Zealand are self-supporting as to their own protection.

H. B.

Note in regard to married establishment by Lieutenant-Colonel J. W. HUGHES, *54th Regiment.*

It seems to me that since the proportion of old soldiers is greatly reduced, and efforts are made to shorten the tour of service of a regiment in India, the establishment of married soldiers might be decreased to the numbers allowed at Home and abroad elsewhere than India.

The saving of expense and the advantage of reducing the *impedimenta* of a regiment need no remark.

After a regiment leaves England, the married roll is chiefly recruited by volunteers from other corps. These men seldom add much to the efficiency of their new regiment; they study only their own comfort, and do little towards keeping up barrack room discipline, the great use of old soldiers in these days; while their cost to the State may probably be estimated at that of three single men.

Their wives are not unfrequently undesirable characters, and their children acquire, by the time the father is pensioned and they are 10 or 12 years of age, habits of helplessness which unfit them for their future life in England.

I think therefore that the number of married volunteers might advantageously be limited and a bar set against any who were not either qualified for promotion or having respectable wives, and being of industrious habits, might hope for employment in India at the end of their service.

Memorandum on a proposed method for utilizing grass-cutters' ponies when on the march and for reducing the number of native followers of a British cavalry regiment.

1. Before entering into details on the subject of the transport required for a British cavalry regiment, whether merely on the march from one station to another, or proceeding on field service, and before attempting to show how a cavalry regiment may be made to a large extent independent of the transport and commissariat departments, it is supposed that the British soldier has been already taught to look on the unwieldy double-pole tent, now used throughout the service as an article of luxury, to be used only in standing camps or when pestilence or field service compels a regiment to leave its quarters during the hot weather months.

2. Assuming, therefore, that the soldier has been thus taught, I would first propose that the camp equipage now attached to a regiment, or a portion of the same, be handed over with the barracks when a regiment changes its quarters, and that in lieu of these tents, a bell tent with an outer fly and two doors, to allow of free ventilation, be issued at the rate of one tent to every 10 men.

3. The only objection to the common bell tent is that the door-way admits the rain; the fly will not only afford more protection from the sun, but will also remedy this evil, as it can be shifted so as to cover the door-way if necessary without closing the entrance.

4. In advocating this change of camp equipage, I am prepared to find that my views will be opposed by many commanding officers and medical men, who have little or no experience of Indian life beyond the limits of a military cantonment, but I feel confident that my opinions will meet with the approval of all officers fond of field sports, who are accustomed to roam about the districts at all seasons of the year, and who are aware that it is not only posssible to exist, but also to be comfortable, in a tent similar to that the adoption of which I now recommend.

5. Although I do not propose that the small tent be used on ordinary occasions during the extreme heat of the summer months, yet it may be as well for me to state that a similar tent, made up by Colonel Swindley, late of the 15th Hussars, was pitched alongside of a double-pole tent in the month of June last, when the temperature of the former was found to exceed by two degrees that of the latter.

6. My second proposition is that the establishment of syces and grass-cutters of a cavalry regiment be placed on an entirely new footing, by which the Government may effect a large annual saving, whilst at the same time greatly increasing, the efficiency and mobility of its British cavalry.

7. The alterations that I propose to make in this establishment are—

That in future the ponies be the property of Government, to be purchased by officers commanding regiments at an average price of Rs. 40; and that 50 of these ponies, with 50 tattoo-wallahs, be

attached to each troop of cavalry, for bringing in grass, for carrying a large portion of the baggage on the line of march, and for part of the tattoo-wallahs to be used as syces to groom the horses of non-commissioned officers and men on duty.

8. Assuming, therefore, that the above-mentioned alterations are approved of, and that the future establishment of a British cavalry regiment in India is to be the same as a regiment on a war footing at Home, I will now proceed to show how I propose to utilize the ponies on the march and then compare the cost with a regiment working under the present conditions.

9. A cavalry regiment on a war establishment consists of 8 troops. Each troop consisting of 75 non-commissioned officers and men and 60 horses. I have excluded from these number, drivers and draught horses that would not be required in India.

A soldier on the line of march is generally allowed 80lbs. of baggage. On field service nominally 30lbs., but in reality a good deal more.

Each troop horse is allowed 15lbs. weight of line-gear.

A bell tent with outer fly holding 10 men weighs 100lbs. Ten of these tents would be carried by each troop, the spare ones being used for guard tents, flying hospital, &c, &c.

The carriage, therefore, that I propose to pack on the 50 ponies of each troop would be—

	lbs.
75 men's kits at 80 lbs per man	6,000
60 horses' kits at 15 lbs per horse	900
10 tents at 100 lbs. per. tent	1,000
Total	7,900

or 158 lbs. on each pony.

10. This calculation, it will be seen, is made supposing every man proceeds on the march, which it is needless to say is never the case. The casualties would, therefore, admit of there being a percentage of spare ponies. This percentage would be much greater when on field service: as all the dismounted men would probably be left at the base of operations, to train horses sent from the reserve. In this case the loads of the ponies would not exceed 100 lbs., as the soldier's kit on field service is reduced to less than half the weight allowed on ordinary occasions.

11. It may be said that the pony after carrying his load has done his day's work and ought not to be called on to go out with his grass-cutter after arrival in camp. To this objection I can only say that I believe a somewhat similar system to what I propose is observed in native cavalry regiments, and my own experience during the Afghan campaign has taught me that, not only can the pony do this work, and thrive on it, when properly fed and clothed, but he can also do it when dragged of a morning half frozen from his picket, thawed by a kick and with nothing to fill his belly but a handful of indifferent grass or bhoosa, spared from the troop horses' scanty rations.

12. Having thus shown how the ponies are to be utilized for baggage purposes, before calculating the cost of the present system and comparing it with the one now under consideration, it is necessary that a few words should be said about the 50 tattoo-wallahs per troop who are to be entertained instead of the present established proportion of syces and grass-cutters.

13. I propose to enlist these men for a term of years, with a small pension to look forward to at the end of their service, paying them at the rate of Rs. 5 per mensem. Thirty out of the 50 men per troop to be grass-cutters, and the remainder syces by trade. The former going out daily, whether in quarters or on the march, with a portion of the ponies, for cutting and bringing in grass, the latter being employed in the troops lines for grooming, &c., &c.

14. This number of syces is about half the present establishment for a troop, but quite sufficient for those regiments that have not dropped into the Indian habit of leaving their troop horses to the care of natives.

15. I will now compare the cost of the two systems. The annual pay of syces and grass-cutters of a regiment of British cavalry, strength as noted in para. 9, is, whilst working under existing rules, as follows:—

	Rs.
480 horses at Rs. 4 each horse per mensem, grass-cutting allowance	23,040
105 syces for horses of all full ranks and 188 for the remainder at Rs. 60 per annum each syce	17,580
Total	40,620

Under proposed rules the annual expenses would be—

	Rs.
4½ per cent. per annum on Rs 16,000, the purchase price of 400 ponies at Rs. 40 each pony	720
7 per cent. annual castings and deaths	1,120
Annual pay of 400 tattoo wallas at Rs. 5 per mensem	24,000
Daily feed of two seers barley per tattoo for 400 tattoos, at the rate of 25 seers barley per rupee, annual cost	11,680
Small jhool annually at Rs. 2 per tattoo	800
Shoeing and removing (fore-feet only)—6 months' shoeing at annas 3 per tattoo per mensem, and 6 months removing at 1½ annas	675
Total	38,995

16. Under the present rules the number of grass-cutters and syces attached to a regiment of English war strength would be as follows:—

Syces	293
Grass-cutters, at the rate of 25 jhorawallas and 10 single men per troop	280
Total	573

Whilst the number of tattoo-wallas under my system would be only 400.

17. Thus, without taking into consideration compensation sometimes allowed for dearness of provisions, the annual saving to Government would be about Rs. 1,600, with a decrease of 173 in the number of followers attached permanently to a regiment.

18. I have hitherto based my calculations on the supposition that the regiment is stationary. Cavalry regiments, during their tour of Indian service, generally change their quarters at least twice, and often three times; they are constantly employed at camps of exercise and durbars, to say nothing of being required for active service. I think, therefore, I am well within the mark if I calculate one month in camp for every year's service in India (my own regiment has averaged two months). For this month, during which, under present system, commissariat cattle would be employed on hire, I will show the amount that will be saved by adopting my principle of utilizing baggage ponies and substituting small for large tents.

19. The kits of the men and horses per troop, as shown before, weigh 6,900 lbs. or 55,200 lbs. per regiment of 8 troops, equivalent to 138 camel-loads ordinary marching, *i. e.*, 5 maunds per camel. The tents now allowed for a regiment of the proposed strength would be about 10 "staff sergeants" and 46 double-pole tents for the troops, guards, and hospital, the camels allowed to carry the same being about 104 in number, making a total of 242 camels to carry tents and baggage that ought to be carried by the troop ponies. The hire of these camels at the lowest fixed price is Rs. 8 each camel per mensem, so the total charge for hire for the month would amount to Rs. 1,936. With these camels there would be at least 90 camel-men, including the surwans.

20. The saving, therefore, to be effected, if my plan be adopted, is Rs. 1,600 per annum on the syce and grass-cutter establishment, and an average of Rs. 1,936 per annum on the hire of carriage, making a total of Rs. 3,536 saved annually by each of the six British cavalry regiments in the Bengal Presidency, or a grand total of Rs. 21,216.

21. My plan also reduces the number of camp followers in quarters by 173 and on the march by 263. It also reduces the length of the baggage column of a cavalry regiment by at least half a mile.

22. In making my calculations, I have done my best to avoid the slightest appearance of exaggeration. I might, for instance, have calculated the rate of camel hire far higher than Rs. 8 per mensem (in the late war it was Rs. 15), but it has been my wish, throughout this memorandum, to place the matter in such a light that, if it be considered worth enquiring into, my calculations may be found to be, if anything, below the mark.

23. There is no doubt that many other articles used on the line of march could be packed on ponies, but I have not entered into this question, as my idea has been merely to utilize, without over-loading, the animals that should always be present with a cavalry regiment. If, however, in time of war, the number of horses be increased by 120, in order to mount the dismounted men 60 additional ponies and tattoo-wallas should accompany them, and on these could be packed a greater portion, if not the whole, of the remaining baggage of the regiment.

24. As regards officers' tents and baggage, I think that each cavalry officer should be compelled to keep up two baggage ponies and be allowed to muster them as one of their chargers; subaltern officers being in future allowed three chargers (*i. e.*, two chargers, and two ponies), the same as on the English war establishment. They would thus at all times be independent of the commissariat or transport departments, and be always ready to march at a moment's notice.

G. LUCK, *Lieut.-Colonel,*
Commanding 15th (The King's) Hussars.

SIMLA,
August 1879.

APPENDIX XXX.

Papers regarding the establishment of a Native Mountain Battery, and the substitution of light carts for wagons with Horse and Field Artillery.

Proposed establishment of a Native Mountain Battery by Captain R. WACE, R.A., *Commanding No. 2 Bombay Mountain Battery, which shall be capable of easy expansion to a 6-gun battery for active service, complete in every respect as regards establishment, equipment and carriage.*

PROPOSED STRENGTH OF PERMANENT ESTABLISHMENT.

Officers	1	Captain.
	3	Lieutenants.
Native officers, non-commissioned officers and men.	1	Subadar.
	2	Jemadars.
	1	Havildar Major.
	1	Quarter Master Havildar.
	6	Havildars.
	6	Lance Havildars.
	6	Naiks.
	3	Trumpeters.
	72	Gunners.
	109	Drivers.
	1	Farrier.
	2	Shoeing-smiths.
	210	

Followers	1	Tindal.
	2	Store lascars.
	2	Tent ,,
	1	Chowdry.
	1	Peon.
	5	Packal bheesties.
	5	Hand ,,
	6	Syces.
	1	Head Smith.
	2	Smiths.
	1	Head Carpenter.
	2	Carpenters.
	1	Head Mochee.
	2	Mochees.
	3	Sweepers.
	65	Grass-cutters.
	96	
Hospital establishment ...	1	Assistant Apothecary.
	1	Dresser.
	1	Cook.
	1	Bheestie.
	1	Sweeper.
	6	Dooly-bearers.
	11	
Total of permanent native establishment	317	
Cattle	109	Mules.
	6	Yaboos.
	65	Ponies.

The above establishment would enable a mountain battery to take the field at once, complete in every respect as regards carriage (including three days' supplies for men and cattle) as a 4-gun battery; and by entertaining 62 more ponies and a corresponding number of grass-cutters, it would be able to do so as a 6-gun battery. No camel carriage would be required. This would represent a considerable gain to efficiency; and though, of course, it is impossible to carry it out without some additional cost, I think it may be done with a very slight increase on the cost of the present establishment, taking into account at the same time the supply of forage, for which the establishment of ponies and grass-cutters would be available, as a general rule, in cantonments and on the line of march.

Taking the proposed establishment under each heading:

European officers.—The proposed increase is 1 Lieutenant. I think it will be generally admitted that it is necessary for the efficient working of guns with either European or Native troops that every division should have an officer with them. If this is the case with European troops, it is really more so with native. Now, unless an officer has been accustomed to serve with mountain batteries and with natives, he cannot be at home with, or up to the new duties required of him, unless he has been some time, probably six months, with them. If an officer is suddenly attached knowing nothing, not only of the particular men whom he is to command, but even of native soldiers generally, and with only a lower standard knowledge of the language (which unfortunately does not ensure a man having an even passable knowledge of colloquial Hindustani), and unused to mountain battery equipment, it follows necessarily that that officer is comparatively inefficient at the very time when, having been attached for active service, his services are most urgently required.

Another reason for giving an additional officer is, that an officer is occasionally absent on furlough, and then the battery is left with only two officers, which would manifestly be insufficient for a 6-gun battery, even with the addition of an attached officer new to his work and duties.

Native fighting establishment.—As regards the establishment of native officers, non-commissioned officers and men:—

The *increase* would be ...	1	Native officer.
	2	Havildars.
	6	Lance Havildars.
	2	Naiks.
	1	Trumpeter.
	12	Gunners.
	24	Drivers.
	1	Shoeing-smith.
The *decrease* would be ...	2	Driver Havildars.
	4	,, Naiks.
	8	Muleteers.

An additional native officer would certainly be required for a 6-gun battery to allow one for each division or 3 for 206 men, which is considerably less than the proportion allowed in a Native infantry regiment, where it is nearly 3 per cent.

I propose to abolish the distinction between gunner and driver non commissioned officers. This does not work well in a native battery any more than it would in a European battery. It tends to keep the two establishments separate and distinct, and to make them think that they are only responsible for their own particular work, instead of promoting that feeling of uniform responsibility for the general efficiency of the battery which makes a No. 1 responsible for everything in his subdivision, and every man under him, whether gunner or driver, ready to bear a hand, whatever the nature of the duty required—

In place, therefore, of the ... { 2 Driver Havildars, 4 „ Naiks,

I would substitute 6 "Lance Havildars."

In a European battery there are the three grades of Sergeants, Corporals, and Bombardiers; why not three grades in a Native?

I would not, however, introduce the Bombardier grade in a native battery, because it would cause confusion with the Lance Naiks. The Lance Havildars would be a useful grade, as they would always be ready to take the place of a No. 1 of subdivision, and would be in fact No. 1 on probation, the commanding officer having it in his power to remand them to the rank of Naik if they do not promise to make efficient Nos. 1. They would wear a Havildar's stripes without the gun and crown. Their pay to be Rs. 13 a month, that of Havildars at present being Rs. 14 and of Naiks Rs. 12.

Additional Havildars and Naiks would also be required for a battery capable of expansion to a 6-gun battery, as it would be most important to keep up an efficient staff of non-commissioned ranks.

The establishment of gunners to be raised from 60 to 72. This would allow 12 per gun on active service with 6 guns, which I consider is the least number that could be maintained with due regard to efficiency.

An additional trumpeter would be required for the increased establishment, thus allowing 1 to be detached with a division and 2 remaining at head-quarters. One of the 3 trumpeters to have non-commissioned rank.

Instead of the 8 muleteers at present allowed for the 24 baggage mules, I would enlist 24 drivers. The reason for this is as follows: it is proposed to abolish the distinction between *ordnance* and *baggage* mules, and to have all the mules (109) available as ordnance mules, since they would all be required *as such* when the battery was raised to a 6-gun battery, and when, of course, a driver would be required for each ordnance mule. This will be more apparent when the establishment of mules is considered.

One additional shoeing-smith would be required, thus allowing 1 to be detached with a division, and leaving 1 farrier and 1 shoeing-smith at head-quarters.

The above represent all the proposed changes in the fighting strength of the battery.

Followers.—Proposed establishment of followers:—

The increase would be ... {
- 1 Puckal bheestie.
- 2 Hand bheesties.
- 1 Syce.
- 2 Smiths.
- 1 Carpenter.
- 1 Head mochee.
- 1 Sweeper.
- 65 Grass-cutters.

The decrease would be ... {
- 1 Grass-cut Muccadum.
- 8 Grass-cutters.
- 1 Fileman.
- 1 Fireman.
- 1 Hammerman.

The establishment of followers has been fixed, as far as possible, so as to make each division of a 6-gun battery independent, which is most necessary, as being always liable to be detached.

At present 2 puckal bheesties are allowed for a 4-gun battery; but it would not be enough for the increase to a 6-gun battery: 1 for each division would be required. Mountain batteries are often located in places in the hills where water is not easily procurable, and the work required of them in such cases is very severe.

The same remark applies with even greater force to hand or puckal bheesties, who supply the men with drinking-water in the lines and on the line of march. At present only 1 hand bheestie is allowed for a 4-gun battery, and if the battery is divided, one-half the men are dependent on their water-bottles on the line of march. This at first sight may not appear to be a hardship; but natives are so dependent on a proper supply of drinking-water that the additional cost of 2 more hand bheesties, giving 1 for each division, would be well invested with regard to efficiency.

Two additional syces would be required for the horses and yaboos of the Native officer and trumpeter added to present establishment.

The smithy establishment of a mountain battery is at present far from satisfactory. It consists of—

	Rs.	A.	P.	
1 Head smith on	17	8	0	a month.
1 Fireman, on	12	8	0	„
1 Fileman, on	9	6	0	„
1 Hammerman, on	9	6	0	„

This resolves itself generally into one head smith, who is a good workman, and the remainder are 3 "jack-of-all-trades" and indifferent workmen. The rate of wages has risen since these rates were fixed. In place of the 3 latter, I would entertain 2 good smiths on a slightly lower rate of pay than

the head smith, say, at Rs. 15 a month. This would allow a good smith for each division when detached. Similarly, with the carpenters, the present establishment is—

	Rs.	A.	P.
1 Head carpenter	17	8	0
1 Carpenter	12	8	0

It is simply impossible to get a good carpenter on the lower rate of pay, and I would introduce 2 more carpenters on Rs. 15 a month each, and discharge the man on Rs. 12-8, who probably destroys more tools and material in the course of 12 months than would pay for the extra wages required for the 2 good workmen entertained in his place.

The mochee establishment is at present 2 mochees on Rs. 10-8 a month.

I would raise the pay of these men to Rs. 12, *if they are worth it*, and if not, engage other men in their place who are; and I would give an additional mochee on Rs 15 a month as a head mochee. The amount of leather work repairs in a mountain battery is especially heavy; and so much depends on this kind of work being well done that great care should be taken to engage only good workmen. The repair work of a 6-gun battery could not possibly be done with less than 3 good mochees.

The artificer's establishment would then be as follows:—

	Rs.	A.	P.
1 Head smith	17	8	0
2 Smiths	15	0	0
1 Head carpenter	17	8	0
2 Carpenters, at	15	0	0
1 Head mochee	15	0	0
2 Mochees, at	12	0	0

This would make each division independent when detailed from head-quarters.

The whole of these artificers to be attested men, and to become entitled to a rate of pension after a term of years' good service. The addition of 1 sweeper for conservancy purposes to the 2 already allowed would be rendered necessary by the increase of establishment.

The addition of 65 grass-cutters (and ponies) is made with a view to supplying forage to the battery when in cantonments and on the line of march when practicable, and to being employed with the baggage ponies on service. This number has been fixed *with regard to the requirements of a 4-gun battery*, to enable it to turn out on the shortest possible notice, complete with carriage for tents, kits, &c., and three days' supplies for men and cattle.

This number would be somewhat more, perhaps, than would be required for supplying forage to cantonments, calculating at the rate of 1 grass-cutter and pony for every 2 mules or yaboos, $\frac{115}{2} = 57$; but the additional 8 ponies would generally be required to supply casualties, and a less number would not suffice for the carriage of a 4-gun battery. The distribution of the 65 ponies and grass-cutters will be given in detail under the head of "Cattle."

Hospital Establishment.

The proposed increase would be 1 cook on Rs. 9 a month.

This was formerly allowed the battery, but was taken away by General Orders in May 1877, and the want of one was very much felt in the last campaign. Formerly, when men in hospital were too sick to cook for themselves, the cook did it, and cooked for 7 or 8 men. Now, it is necessary to send attending men to do it, and men are taken away from their legitimate duties, which in a mountain battery are always heavy. It represents a saving to Government of Rs. 9 monthly, but a decrease in efficiency.

It will be observed that a very small number of dooly-bearers are allowed this battery, *viz.*, 1 dooly for the whole battery, but it is sufficient in time of peace as part of the permanent establishment.

In time of war it could be doubled. I would, however, introduce as part of the regular sick carriage of a mountain battery 3 pairs of litters, to be carried on mules, similar to those described at page 93 of Treatise on Military Carriages, 1876, under the head of "Litters, mark II." These could probably be made somewhat lighter, and I apprehend there would be no difficulty in finding strong and quiet mules that could carry 2 natives.

The weight carried by an ammunition mule is 3 maunds 39 seers or 313 lbs., and taking the average weight of a native at 9 stone or 252 lbs. for 2 men, this would leave 70 lbs. for the weight of the litter. The weight given in the Treatise is 93 lbs., but by substituting male bamboo for iron rod, this could be easily reduced.

Such an arrangement would represent about quarter the cost of dooly-carriage. Cost of keep of mule for one month being taken at Rs. 14 a month + 7 for the wage of the driver = 21, and would provide carriage for 2 men, who if carried in doolies would require 12 men at Rs. 7 a month to carry them = 84.

When not required for sick carriage, the mule would carry his 4 maunds of baggage, and would eat just one-fifth in *weight* of what would be required to feed 12 dooly-bearers, *viz.*, 3 seers for the mule against 15 seers for the dooly-bearers. There is also the not infrequent contingency of a dooly-bearer himself having to be carried, which does not apply to the mule.

In the many cases when men get lame and are not seriously ill, the little extra jolting they might receive in a mule-litter would not be worth considering, and it would be a very cheap and dependable mode of sick carriage for hill warfare. Dooly-bearers are, as a rule, not good in finding their way over rough and hilly grounds.

Three litters and 2 doolies would represent sick carriage for 8 men, which, I think, would be sufficient, transferring bad cases to field or base hospitals as opportunity offered.

While on the subject of the hospital establishment of a mountain battery, I would beg to call attention to the very unsatisfactory state of the medical attendance of mountain batteries. The medical

officer in charge is only temporarily attached from the native regiment with which the battery happens to be serving at the time, and the result is a continual change of medical officers. There were as many as five changes last year in this battery between 1st January and 31st December. This is manifestly unfair to the men, and I would recommend that a medical subordinate of the apothecary grade, or at any rate a hospital assistant of the 1st class, should be permanently appointed to the medical charge of a mountain battery.

The constant change of medical officers would then not be so severely felt as it is now.

At present only a 3rd class hospital assistant is allowed on a salary of Rs. 25 a month. The pay of a 1st class hospital assistant would be Rs. 60 a month.

The pay of an assistant apothecary over five years' standing is Rs. 100 a month.

Mules and Transport.

Cattle.—The establishment of mules would remain as at present, *viz.*, 109, but the distinction between "ordnance" and "baggage" mules would be abolished. All the mules to be capable of being worked as "ordnance mules."

Distribution of cattle in a 4-gun battery.—The distribution of mules in a 4-gun battery would then be much as at present, *viz.*—

Per Sub-Division—

3 for gun.
3 „ relief.
4 „ barebacked.
8 „ ammunition.
1 „ spare ammunition.

$19 \times 4 = 76 +$ { 4 for spare carriage and relief. 2 for pioneers' tools. 2 for artificers. 1 for a pair of litters.

$= 85$

The remaining 24 mules would be distributed to loads as at present told off for the baggage mules, *viz.*, 18 for tents and 6 for store and repair material.

The only difference in the distribution of the ordnance mules is, that I have taken away the forge mule and substituted a litter mule for sick carriage.

The Abyssinian forge is never used by native smiths. They dislike working standing, and they can get a better draught with their own very portable bellows. They never will use the forge unless they are forced to, and therefore I consider it is useless, as it is a cumbrous load.

On the battery being ordered suddenly to take the field *as a 4-gun battery*, the distribution of the "65 baggage" or grass-cutters'" ponies would be as follows:—

For carriage of kits of ...	* 189 fighting men 31 followers		220 men at 20 lbs. each
	=4,400 lbs.=55 maunds		... 28 ponies.
For cooking utensils ...	... ...		... 2 „
For hospital stores ...	... ...		... 2 „
For veterinary stores ...	... ...		... 2 „
For office	... ...		... 1 „
For three days' supplies of 220 men and followers as above + 65 grass-cutters, at 1¼ seers per man daily = 285 men for three days	... ...	Mds. 26½	
For 109 mules, at 3 seers for three days	...	24½	30 „
For 65 ponies at 2 seers for three days	...	9¾	
	Total ...	60¾	
	Total		... 65 ponies.

The tents and repair material have been packed on the 24 mules hitherto classed as baggage mules, and the battery is thus enabled to take the field *at the very shortest notice* with 4 guns, using the grass-cutters' ponies as baggage animals. Not a single camel or animal of any description would have to be indented for, and merely the supplies required for three days' provisions for men and cattle procured from the commissariat or nearest bazar, and the battery would virtually be able to do at least a five days' or even a six days' march, the men carrying two days' rations in their havresacks.

---

* 2 Native officers.
1 Havildar Major.
1 Quartermaster Havildar.
4 Havildars.
4 Lance Havildars.
4 Naiks.
2 Trumpeters.
60 Gunners.
108 Drivers.
1 Farrier.
2 Shoeing-smiths.

189

2 Puckal bheesties.
2 Hand „
5 Syces.
9 Artificers.
2 Sweepers.
11 Hospital establishment.

31

Distribution of cattle for a 6-gun battery.—If, however, the battery were required to proceed on service as a 6-gun battery, it would be necessary to employ the whole of the mules as "ordnance mules," and to entertain in addition to the proposed permanent establishment of 65 grass-cutters' ponies, 62 more ponies and grass-cutters.

The distribution would then be as follows:—

Distribution of cattle for a 6-gun battery.

Mules per subdivision—

3 for gun.
3 „ relief.
3 „ barebacked.
8 „ ammunition.

17 × 6 = 102 + { 4 for spare carriage and relief. / 3 for three pairs of litters. }
= 109 mules.

Baggage ponies—

3 for artificer's tools.
3 „ pioneer's „
6 „ barebacked (1 for each subdivision).
24 „ carriage of tents.
9 „ „ store materials.
1 „ „ kits of Native officers.
32 „ „ „ 250 men and followers.
3 „ „ cooking utensils.
3 „ „ hospital boxes.
2 „ „ veterinary „
1 „ „ office.
40 „ „ three days' supplies of men and cattle.

127 ponies.

In the above distribution of *mules* it will be seen that 1 barebacked mule has been taken from each subdivision to be replaced by a pony. The spare ammunition mule has also been cut out, as the "relief-wheel-saddle" can always be made available for a "spare ammunition saddle."

The wheel-saddle mule when laden carries the lightest load in the battery, *viz.*, 3 maunds 3 seers, being 36 seers less than an ammunition mule has to carry, and the load is a good one, so that there is no reason why a wheel mule should require a relief more than an ammunition mule, and by attaching two hooks (turned slightly inwards) to the relief-wheel-saddle, it can be used very well as an ammunition saddle. This plan was introduced by Lieutenant Robertson, lately commanding this battery, and it answers very well.

Ponies.—In the distribution of ponies, it will be seen that everything is divisible by 3, so that on any division being detached, it could move at once without trouble, and with its proper complement of carriage for artificer's tools, pioneer's tools, tents, kits, hospital stores, &c., and supplies. I have added 1 pony for artificers and 1 for pioneer's tools, so as to make each division independent.

The tents and carriage for tents have been calculated as follows for the whole battery:—

Tents, lascar, pâls ... ... { 1 for native officers. / 12 for men. / 2 for followers. / 2 for guards. / 1 for hospital. }

Total ... 18 would require 24 ponies.

At present 6 baggage mules are allowed for repair material; but as there would be more of this to carry for a 6-gun battery, and ponies would carry less, 3 ponies would certainly be required for each division: total 9.

The kits of men and followers are calculated all round at 20 lbs. per man, excluding the grass-cutters who would carry their allowance on their own ponies. This would give 251 × 20 = 5,020 lbs., which, calculated at 2 maunds per pony, would require 32 ponies. I would allow one pony for the native officers' kits and 1 for each subdivision for cooking utensils.

For the carriage of *three days' supplies* for the whole of the battery, men and followers, including grass-cutters and their ponies, 40 ponies would be required, calculated as follows:—

For 251 + 127 = 378 men, at 1¼ seers per diem.

	Mds.
472 × 3 = 1,416 seers	= 35¼
For 109 mules, at 3 seers each—	
327 × 3 = 981 seers	= 24¼
6 yaboos, at 3 seers each	= 1¼
127 ponies, at 2 seers each	= 19
Total ..	80 maunds.

which would require 40 ponies.

The best of the ponies would, of course, be selected as barebacked for the gun, subdivisions, and for the transport of artificer's and pioneer's tools, and next for the carriage of tents. But the remainder would not be required to carry loads exceeding 160 lbs., which is a small load for a grass-cutter's tat. I have made the loads light to allow of the carriage of grass-cutter's kits; and in order to reduce the share of sore backs as much as possible, and because I have allowed no spare as each day's supplies were consumed, there would be 13 spare ponies to replace casualties.

This establishment of baggage ponies would make a 6-gun battery quite independent of other carriage, and would enable it to move freely in places where camels could not march. The supplies would have to be renewed every 4 or 5 days; but if the men were provided with two days' rations in their havresacks, and the mule's *tobras* were carried full, a five days' march could always be made without difficulty.

The grass-cutters when not actually marching would always be employed as such, and would always be able to bring in a sufficient quantity of forage, thus effecting a considerable saving and rendering the cost of this establishment considerable. The grass-cutters would, of course, also be employed on the march in places where forage was procurable.

EQUIPMENT.

Equipment.—As regards this, I would recommend that the whole and complete equipment of a 6-gun battery be always kept on hand in charge of the Officer Commanding the battery, and not in ordnance charge. If the latter course was followed, there would be inevitable trouble and delay when it was suddenly required to be issued, and the packing of the stores and ammunition boxes would probably be different from the rest of the battery, which would cause confusion.

If the establishment of a mountain battery such as I have recommended were allowed, there would be a No. 1 for each subdivision, who would be responsible for every detail, and the equipment would be quite as well taken care of as it would be in the store rooms of an arsenal. Moreover, having the whole 6-gun equipment complete would enable the Commanding Officer to manœuvre and drill the battery as a whole in time of peace, which is an important consideration. I would also recommend that a special pattern saddle be introduced for the carriage of artificers' and pioneers' tools, the present ammunition saddle not being well adapted for the purpose, and that the number of baggage saddles be increased to 50. The remainder of the ponies to be supplied with a well-stuffed native baggage saddle, which would answer perfectly well for the carriage of tents or men's kits, and would be lighter than the "saddle, pack, N. P.," as used in mountain batteries.

The native baggage saddle could always be procured locally, and an allowance might be made to keep them in proper order.

Three special saddles would also have to be made for the litters.

The whole equipment to be furnished with a view to the requirements of a 6-gun battery, and to be in sole charge of the Officer Commanding. In case of the battery being called out as a 4-gun battery, the extra gunner establishment to remain behind with the depôt in charge of sick and stores.

I now propose to estimate approximately the difference in cost between present and proposed establishments—

	PRESENT.	Rs.	A.	P.	PROPOSED.	Rs.	A.	P.
Fighting establishment	1 Subadar	80	0	0	1 Subadar	80	0	0
	1 Jemadar	50	0	0	2 Jemadars	90	0	0
	1 Havildar Major	14	0	0	1 Havildar Major	14	0	0
	1 Quartermaster Havildar	14	0	0	1 Quartermaster Havildar	14	0	0
	4 Havildars	56	0	0	6 Havildars	84	0	0
	4 Naiks	48	0	0	6 Lance Havildars	78	0	0
	2 Trumpeters	14	0	0	6 Naiks	72	0	0
	*60 Gunners	480	0	0	3 Trumpeters	21	0	0
	2 Driver Havildars	24	0	0	72 Gunners	576	0	0
	4 Driver Naiks	40	0	0	109 Drivers	763	0	0
	85 Drivers	595	0	0	1 Farrier	21	0	0
	1 Farrier	21	0	0	2 Shoeing-smiths	25	0	0
	1 Shoeing-smith	12	8	0				
	8 Muleteers	56	0	0				
Battery followers	1 Tindal	9	0	0	1 Tindal	9	0	0
	2 Store lascars	14	0	0	2 Store lascars	14	0	0
	2 Tent „	14	0	0	2 Tent „	14	0	0
	1 Chowdry	16	0	0	1 Chowdry	16	0	0
	1 Peon	6	0	0	1 Peon	6	0	0
	2 Puckal bheesties	24	0	0	3 Puckal bheesties	36	0	0
	1 Hand bheestie	7	8	0	3 Hand bheesties	22	8	0
	4 Syces	24	0	0	6 Syces	36	0	0
	1 Head smith	17	8	0	1 Head smith	17	8	0
	1 Fireman	12	8	0	2 Smiths	30	0	0
	1 Fileman	9	6	0	1 Head carpenter	17	8	0
	1 Hammerman	9	6	0	2 Carpenters	30	0	0
	1 Head carpenter	17	8	0	1 Head mochee	15	0	0
	1 Carpenter	12	8	0	2 Moochees	24	0	0
	2 Mochees	21	0	0	3 Sweepers	15	0	0
	2 Sweepers	10	0	0	65 Grass-cutters	325	0	0
	1 Grass-cutter muccadum	10	0	0				
	10 Grass-cutters	50	0	0				
Hospital establishment	1 Hospital assistant, 3rd class	25	0	0	1 Hospital assistant, 1st class.	60	0	0
	1 Dresser	7	0	0	1 Dresser	7	0	0
	1 Bheestie	9	0	0	1 Bheestie	9	0	0
	1 Sweeper	7	0	0	1 Sweeper	7	0	0
	6 Dooly-bearers	42	0	0	1 Cook	9	0	0
					6 Dooly-bearers	42	0	0
	TOTAL	1,878	12	0	TOTAL	2,599	8	0

* The pay of the gunner has been calculated at Rs. 8, which has been already proposed by His Excellency the Commander-in-Chief, at present however, they are really receiving Rs 7.

The difference in cost between the two establishments so far would be Rs. 721 monthly, but we must now take into account the cost of feeding the extra cattle, and against the sum total put the average value of the forage which would be brought in by the grass-cutters. The result would then represent very nearly the additional cost to Government. The extra cattle are—

2 Yaboos at 3 seers daily.
65 Ponies at 2 „ „

This would represent 102 maunds of gram monthly. The amount of forage required for 6 yaboos and 109 mules, calculated at 20 lbs. each per diem, amounts to 69,000 lbs. a month.

Now, taking the Jacobabad rates for the four months preceding the march of this battery to Quetta last year, we find the price paid for gram was 10 seers per rupee, grass 70 lbs. per rupee; and applying these rates as above, we have—

	Rs.
Extra cost of permanent establishment	721
Add cost of gram for extra cattle	408
	1,129
Deduct cost of 69,000 lbs. forage, which would be brought in by grass-cutters' ponies	985
Total extra cost to Government, Rs. ...	144

The Jacobabad rates were, however, exceptionally high, and I will therefore take now what would be a fair average rate; say, gram at Rs. 3 per maund, forage at Re. 1 per 100 lbs. We have—

	Rs.	
Cost of extra establishment	721	
Add cost of gram for extra cattle	306	
	1,027	
Deduct cost of 69,000 lbs. forage at 100 lbs. per rupee	690	
Total extra cost to Government, Rs. ...	337	monthly

There would also be the original cost of 2 yaboos and 65 baggage ponies, but good ponies could, no doubt, be purchased for quarter or one-fifth the value of mules. Rupees 3,000 would probably cover the whole outlay, allowing Rs. 200 for each yaboo and Rs. 40 for each pony.

There would also be the cost of gradually converting 24 baggage into ordnance mules, getting only mules fit for ordnance work; but probably in every battery only a few would require to be changed.

Advantages of proposed establishment.—To the monthly additional cost to Government of Rs. 337 might be added Re. 1 per pony for saddle and line gear expenses, making a total of Rs. 402 monthly; and against this I would claim the following advantages:—

(1) That a battery would *always* be ready to move as a 4-gun battery complete with carriage for everything, including three days' supplies at 24 hours' notice.

(2) That it would then be able to move over ground for five days at a time over which camel carriage could not follow it. This cannot be done at present.

(3) That it would be capable of easy expansion to a 6-gun battery, and would then have the same power of mobility over hilly country, and be equally complete in carriage.

(4) That in parts of the country where supplies are easily procurable (as they were in Afghanistan, this battery having procured nearly all its supplies locally), it would be virtually independent of the Commissariat Department.

Proposals of Lieutenant C. M. WESTERN, R.H.A., *for substituting light carts for wagons with horse and field artillery.*

My proposal is to do away with wagons altogether; and I will divide the subject into two parts—*first*, how to do so with royal horse artillery; and *secondly*, with field artillery.

Horse Artillery.

That the wagon is out of place in a horse artillery battery will, I think, hardly be denied, not only when drawn by bullocks, but even when horsed. Our experience in the last Afghan war showed us that it was often necessary to place as many as twelve horses in a wagon to get it over the ground at all; and also that it was advisable, and I may say obligatory, never to have less than eight horses in. Six horses may be sufficient to drag 42 cwt. along level roads or for short distances; but they are not sufficient when they get into rough ground for any length of time. It is granted, by reducing the weight of the gun from 8 cwt. to 6 cwt., that 39 cwt., including limber gunners (the weight behind the horses in a field battery armed with 9-powders of 8 cwt.), is too heavy a weight for horse artillery guns,—then how reconcile the fact of attaching a carriage of 42 cwt. to it? If, in answer to this, it is said that wagons are not expected to gallop or go over the same ground as the guns, my response is, that they must always be near them, and that (as the experience of this last campaign shows), it is not in galloping short distances that the weight tells, but in the long-sustained effort. My argument then is, that horse artillery should be able to keep up with cavalry in a forced march. The present wagons cannot do so. Horse artillery is not efficient without its wagons, having only 40 rounds a gun. Conse-

quently, wagons are not suitable to horse artillery. I have not even alluded to a second line of wagons drawn by bullocks, as I believe they (the bullocks) have already been condemned. But I would say here that, if it is considered necessary that horse artillery should have a second line of wagons, *i. e.*, that it should have with it 256 rounds per gun, the occasion that I have above alluded to, *viz.*, a forced march, when it is away from all assistance is the very time that it would require them; and that consequently, to be of any use, the second line must be horsed, and with not less than eight horses apiece, with the proper proportion of spare. The immense increase of expense of this is obvious but essentially necessary if it is decided that a second line of wagons is a necessity. Taking it to be granted, then, that my assumption that wagons are unsuitable to horse artillery is proved, it now remains to show how they are to be replaced. But, first, I must premise what is universally allowed, and that is, an immense and increasing loss of power with each pair of horses that are put one in front of the other. The way to obtain the greatest amount of effective work out of your horses is to have each of them next the carriage. But not only this: when you have once got beyond a certain weight, it doesn't matter how many horses you may put in, the carriage remains, if not a positive fixture, something much resembling one on difficult ground, and at the best a vehicle constituting an enormous and unnecessary strain on the horses, who, with the best driving, can never be got to all start and pull together. This was well exemplified in the Kandahar Column and on the Dera Bugti route: it resulted in the positive abandonment of several wagons, it being found impossible to get them any further. I believe a pair of horses could take a two-wheeled cart weighing about 12 cwt. almost anywhere—certainly anywhere that guns could go; and I believe that not all the horses in the world could get a carriage weighing 42 cwt. out of a really bad, sticky place, even if any ordinary harness would bear the strain. Consequently, I advocate the wagons being replaced by light two-wheeled carts. And the first plan that suggests itself of doing so, without any great change of material, is by doing away with the wagon bodies and limbers and replacing them by three limbers drawn by two horses each. This has already been worked out by Major Ellis, R.A., in *Royal Artillery Institution Papers*, Vol. X., No. 2; and there is no doubt that it is a much more mobile and efficient plan of carrying the stores and ammunition than the present heavy and cumbersome wagon. He, however, increases the weight of his limbers, which I do not think advisable; and, moreover, advocates horsing some with four horses and some with two; the latter to move at a slower pace, thus breaking up the complete unity of the battery. It would be better to relegate at once these slow-moving carriages to the ammunition reserve column.*

However, when it comes to be considered that the sole purpose and object of each limber is only to carry some 5 cwt. of ammunition and stores, surely it must be granted that a carriage weighing over 11cwt. is unnecessarily heavy and strong for the purpose. We, in India, are all acquainted with the little hill tongas, which, with four men, weighing on an average at least 6 cwt. (without baggage), gallop up steep acclivities behind a small pair of ponies, and can turn in and out anywhere. And I am sure our carriage arsenal authorities could invent a light carriage which could carry more than the 5 cwt. now necessary (which would increase the number of rounds per gun), and yet be able to accompany the guns anywhere, and without entailing on the commanding officer any of that anxious thought whether the wagons would get over all right which, I am sure, many a commanding officer must have experienced in this last campaign, and without giving rise to those blocks and stoppages which, inconvenient and harassing as they may have been to troops in rear, were still more so to the minds of artillerymen, who are proud of their service, and who would fain believe and *show* that they are ready and able to go anywhere. This light cart system, I maintain, is the way to obtain a really efficient and mobile artillery. But until something of this sort is done, I fear we must be content to be looked upon as a block and a hindrance, magnificent and unrivalled when in action, but requiring roads to be cut for us to allow us to get these escorts to help us in our difficulties, and as a constant source of anxiety and thought to our generals, our comrades, and ourselves. Descending to matters of detail, the stores, blankets, line-gear, &c., now carried on our limbers and wagon bodies could, without any difficulty, be carried on these light carriages that I suggest, and which I will call "limber carts." But there are one or two things which it would be rather difficult to place on them without making them heavy and cumbersome; and they are the spare wheels, shafts, and axletrees that are now carried on the wagons. With regard to these, I would suggest that the two spare wheels are sufficient with a battery, one of which could be carried on the store limber wagon and one on the spare gun carriage, lightening the latter by the spare axletrees and replacing them by two shafts. With regard to the head-ropes and stable head-collars on second line, I think that each horse should carry his own heel-peg and heel-rope, being thus always ready to picket when he came in, and their places on the first line could be taken by the stable head-collar and rope, if these are still considered necessary. But I think the harness head-collar ought to be made sufficiently strong to do away with the necessity of a stable head-collar; and the horse should carry either head-collar, chain or rope, whichever is considered most serviceable. Picketing by the fore-foot does away with the necessity of either of them, as well as with the picket rope; but this is considered objectionable by many. I have now shown how horse artillery guns may be accompanied by its ammunition anywhere or at any pace at which it may be called on to go, without any increase of establishment or expense beyond the slight cost of the new carriages. It will be complete in itself with its first line only—by which I mean the three new limber carts with which I propose to replace the wagon; and these, I think, might be made to carry more ammunition than the present wagon does. But if still more ammunition is required, of course more limber carts must be provided to replace the present second line with its bullocks. In either case, whether we adhere to our present system or adopt my scheme, an extra establishment and expense will be required for this in time of war, if I am right in my supposition that bullocks have been condemned for this purpose. With regard to the form these new limber carts are to assume, that I leave to the carriage authorities and time and experiment. But my own idea is a cart in which the weight is made as compact and kept as low as possible, to prevent upsetting, and drawn by two horses. One further advantage that I claim for this scheme is, that the number of rounds per gun is so much more easily adjustable. In the present system we have no choice except a jump from 148 rounds per gun to 256. But in my plan you might make the number almost

* In preference to his plan, I would adopt the present limbers as they stand, only shifting the ammunition boxes further back to take the weight of the shaft off the horse's back.

anything you pleased; also it would be able to obtain cover much more easily for the limber carts when the guns were in action. Carrying the ammunition on pack-animals is out of the question with horse artillery, as they would have to be led, and could not keep up with the guns in a forced march or at a rapid pace.

Field Artillery.

The question of field artillery has to be looked at from a different point of view. With horse artillery it is essential that the battery should be complete in itself, and that it should be able to move as a whole to a great distance and away from all assistance. But this is not the case with field artillery. It would be always with infantry, and within reach of the ammunition reserve. However, my arguments with regard to the unsuitability and cumbersomeness of the wagons apply with nearly, if not quite, as great force to them as to the horse artillery. The weight of the gun is a necessary evil and cannot be avoided. But it is not so with the wagons; and I would apply the same system to them as to the horse artillery, having however only two limber carts instead of three (reducing the establishment to the same proportionate extent), as they have always the ammunition reserve to fall back on. This would give 112 rounds per gun; and supposing that the battery remained in action, firing steadily at the rate of two rounds per minute, would allow 4¾ hours, after three limbers have been exhausted, for the limber carts to return with fresh ammunition. It is an essential of this part of my scheme that an ammunition reserve column should be in existence. But one-half the number of rounds carried in the reserve would be as or more efficient than double the number carried with the batteries, as they would be available for those batteries on which the brunt of the battle might fall. To carry the men I would have two on the limber, two on the axletree boxes, and two on the off-horses; and the limber carts should be able to carry two men each at a pinch. Except when moving at the trot, all men should walk. If the ammunition reserve were formed from garrison batteries, they would also serve as a reserve of men in case of a battery suffering heavily. With field artillery the objection to pack-animals, that they could not keep up, does not hold. But I do not consider them either economical or efficient. First, you would be able to mount only seven men; secondly, you would require three, if not four, ponies to carry what two horses do, besides their drivers; and they give a great deal of trouble in loading and unloading.

C. M. WESTERN, *Lieut.*,
Royal Horse Artillery.

APPENDIX XXXI.

Statement shewing the approximate annual cost of War Establishment of a Regiment of Native Cavalry and Native Infantry, as proposed by the Commission with the numerical strength of officers and men, as detailed in the Statement following.

Items of Charges.	Approximate annual cost of a		Remarks.
	Regiment of Native Cavalry (8 Troops).	Regiment of Native Infantry (800 Sepoys.)	
Established Strength.			
Numbers { European combatant and medical officers ...	10	8	
Numbers { Native commissioned and non-commissioned officers and rank and file	609	912	
Cost—	Rs.	Rs.	
Pay of European combatant and medical officers	48,698	41,500	
Pay of native commissioned and non-commissioned officers and rank and file	2,27,964	93,984	
Pay of regimental hospital, educational and native artificers and followers' establishments	2,544	3,666	
Regimental, command, staff, horse, band, contract, good-conduct and good-shooting allowances	43,343	38,520	
Cost of clothing and compensation in lieu	...	4,511	
Compensation to native troops and establishments for dearness of provisions	7,464	11,244	
Compensation to native (silladar) cavalry for dearness of forage	7,260	...	
Medical charges, including medicines for natives	609	912	
Ordnance charges, including arms, tools, camp-equipage, &c.	4,772	11,630	
Kit-money to recruits at Rs. 30 each	...	2,700	
Allowance for half-mounting to non-commissioned officers and men	...	3,224	
Total cost per annum	3,42,654	2,11,891	
Annual average cost per man ...	562 65	232 33	

Statement shewing the present and proposed establishment of a Regiment of Native Cavalry and Native Infantry, with total annual cost of each.

Ranks.	Native Cavalry Regiment.	
	Present strength.	Proposed strength.
European Combatant and Medical Officers.		
Commandant	1	1
1st Squadron Commander	1	1
2nd Do. do.	1	1
3rd Do. do.	1	1
4th Do. do.	...	1
Squadron Officer	3	4
Medical Officer	1	1
Total Officers	8	10
Native Commissioned and Non-Commissioned Officers and Rank and File.		
Ressaldar, 1st class	1	1
Do. 2nd do.	1	1
Do. 3rd do.	1	2
Ressaidars, 1st do.	1	1
Do. 2n do.	1	1
Do. 3rd do.	1	2
Woordie Major	1	1
Jemadars, 1st class	2	2
Do. 2nd do.	2	2
Do. 3rd do.	2	4
Duffadars (including Farrier Major and Salootrie)	54	72
Trumpeters	6	8
Sowars (including Assistant Salootrie and Farriers)	384	512
Total Native Officers, Non-Commissioned Officers and men	457	609
Total established Strength ...	465	619

Ranks.	Native Infantry Regiment.	
	Present strength.	Proposed strength.
European Combatant and Medical Officers.		
Commandant	1	1
1st Wing Commander	1	1
2nd Do.	1	1
Wing Officers	4	4
Medical Officer	1	1
Total Officers	8	8
Native Commissioned and Non-Commissioned Officers and Rank and File.		
Subadars	4	4
Do.	4	4
Jemadars	4	4
Do.	4	4
Havildars	40	40
Naicks	40	40
Drummers	16	16
Sepoys	600	800
Total Native Officers, Non-Commissioned Officers and men ...	712	912
Total established Strength ...	720	920

	Rs.
Annual cost of a regiment of Native Cavalry with *six troops* as at present	2,63,332
Annual cost of a regiment of Native Cavalry with *eight troops* as proposed and detailed in previous Statement	3,42,654

	Rs.
Annual cost of a regiment of Native Infantry with 8 companies and 600 sepoys, as at present	1,80,585
Annual cost of a Regiment of Native Infantry with 8 Companies, but with 800 sepoys, as proposed and detailed in previous Statement	2,11,891

APPENDIX XXXII.

Papers relating to the recruitment and service of the Native Army.

No. 17, dated Simla, 7th August 1879.

From—The Secretary to the Commission on Army Organization and Expenditure,

To—The Adjutant General in India.

I have the honor to request that, under the orders of His Excellency the Commander-in-Chief, the Army Organization Commission may be furnished, at an early date, with a return giving the information indicated in the annexure, for those regiments of the Native Armies of the three presidencies, which were detailed for service in the recent Afghan campaign.

Strength of regiment on 1st October 1878	
Strength on leaving its station	
Left sick at station or depôt	
Wanting to complete	
Total ...	
Strength on 1st August 1879	
Strength with regimental head-quarters	
At depôt	
Casualties during time since 1st October 1878—Died, Killed in action, Discharged, Invalided, Deserted	
Wanting to complete	

Are recruits of this last season of average stamp?
When did first batch join the ranks, and when will last batch join the ranks?
How many have been discharged from being unfit?

No. 689R., dated Simla, 15th October 1879.

Memo. from—The Adjutant General in India,

To—The Secretary to the Commission on Army Organization and Expenditure.

Forwarded* in compliance with his letter No. 17, dated 7th August 1879.

* Return shewing the strength of native corps detailed for service in Afghanistan on 1st October 1878, on leaving station, and on 1st August 1879, &c.

Return shewing the Strength of Native Corps detailed for service in Afghanistan on 1st October 1878, on leaving Station, and on 1st August 1879, &c.

Return shewing the Strength of Native Corps detailed for service in Afghanistan

	Corps.	Strength on 1st October 1878.		Strength on leaving Station.		Left sick at Station or Depot, &c.,		Wanting to complete.		In Excess.		Total.		Strength on 1st August 1879.		Strength with Regimental Head-Quarters	
		Native Officers.	Men.	Native Officers	Men.	Native Officers.	Men.	Native Officers	Men.	Native Officers.	Men.	Native Officers.	Men.	Native Officers	Men.	Native Officers	Men.
	8th Bengal Cavalry ...	13	444	12	421	1	88	...	81	...	...	13	540	11	444	7	333
	10th ,, Lancers ...	13	531	7	272	6	259	...	9	..	...	13	540	12	515	7	446
	11th ,, ,, ...	15	442	12	350	3	129	...	61	2	...	15	540	15	531	7	388
	12th ,, Cavalry ...	13	443	6	286	7	158	...	...	...	...	13	444	13	513	7	360
	13th ,, Lancers	13	444	8	371	5	89	.	80	...	.	13	540	13	527	7	364
	14th ,, ,, ...	16	445	8	284	8	198	...	58	3	..	16	540	14	512	13	480
	15th ,, Cavalry ...	14	444	9	339	5	133	...	69	1	..	14	540	14	517	8	338
	19th ,, Lancers ...	14	443	13	416	1	27	...	1	1	...	14	444	13	443	13	434
	Sappers and Miners ..	17	1,139	20	1,103	...	41	.	...	.	4	20	1,144	16	1,153	4	217
	2nd Native Infantry ...	10	692	10	666	...	30	6	..	..	...	16	696	17	794	15	593
	6th ,, ,,	14	681	8	525	6	156	2	15	...	...	16	696	15	509	5	456
	11th ,, ,, ...	12	698	13	571	3	180	1	145	..	...	16	896	14	819	13	746
	12th ,, ,, ..	16	693	10	368	6	325	...	3	..	...	16	696	12	800	10	703
	14th ,, ,, ...	15	690	10	591	5	97	1	8	...	..	16	696	12	766	6	560
	15th ,, ,, ..	16	692	15	628	1	63	...	5	...	...	16	696	14	756	13	730
	19th ,, ,, .	16	695	11	417	5	278	..	1	..	...	16	696	13	813	12	783
	20th ,, ,, ...	16	679	12	543	4	177	...	176	..	..	16	896	15	695	10	522
	21st ,, ,, ...	14	687	14	619	1	60	1	17	...	...	16	696	15	845	14	690
	23rd ,, ,, ...	16	683	13	646	3	36	...	14	...	...	16	696	14	869	10	703
	24th ,, ,, ...	16	689	12	551	4	137	...	8	...	...	16	696	15	823	13	705
	25th ,, ,, ...	16	688	14	629	2	67	...	...	...	...	16	696	16	827	14	719
	26th ,, ,, ...	16	687	8	409	8	278	...	9	...	...	16	696	16	757	10	605
	27th ,, ,, ...	16	696	11	612	5	157	..	127	...	...	16	896	14	622	9	609
	28th ,, ,, ...	15	714	15	606	1	107	..	.	...	17	16	713	15	843	12	654
	29th ,, ,, ..	16	695	16	643	.	51	..	2	...	..	16	696	16	832	12	591
	32nd ,, ,, ,,	16	693	14	563	2	126	..	7		...	16	696	16	778	10	523
	39th ,, ,, ...	16	689	15	637	..	58	1	1		...	16	696	16	880	13	543
	45th ,, ,,	16	692	12	598	4	101	...	127	..		16	896	16	808	14	745
	1st Goorkhas	15	714	6	449	9	265	1	7	...	...	16	722	5	665	4	536
	2nd ,, ...	17	788	10	594	3	90	3	37	.	...	16	721	17	741	13	660
	3rd ,, ...	16	692	11	591	4	123	1	7	...	...	16	721	15	753	14	649
	4th ,, ...	16	734	15	656	1	62	...	3	..		16	721	14	768	13	716
Punjab Frontier Force	1st Mountain Battery ...	2	159	2	149	...	12	...	11	...	...	2	172	2	226	2	201
	2nd ,, ,, ...	2	161	2	167	...	..		5	..	...	2	172	2	240	1	213
	3rd Peshawar ,, ...	2	204	2	204	...	...	1	17	...	...	3	221	2	179	1	109
	4th Hazara ,, ...	2	171	2	172	...	...	.	...	.	...	2	172	2	228	2	226
	5th Garrison ,, ..	3	91	3	91	...	...	...	4	.	...	3	95	3	93	3	83
	1st Punjab Cavalry .	12	453	7	247	6	205	.	28	...	..	13	480	13	463	13	395
	2nd ,, ,,	13	471	9	368	4	103	.	9	.	...	13	480	13	514	12	381
	5th ,, ,, ..	14	468	9	228	5	240		12	1	...	14	480	12	533	7	375
	Corps of Guides ...	27	1,049	19	724	8	327	..	16		...	27	1,067	27	1,144	17	782
	1st Sikh Infantry .	16	723	15	645	1	80	..	11			16	736	16	872	8	634
	2nd ,, ,, ...	16	729	11	424	5	309	.	163	..	..	16	896	15	842	13	762
	1st Punjab ,, ..	16	709	15	661	1	28	...	47	...	...	16	736	15	677	4	359
	2nd ,, ,, ...	16	734	12	583	4	173	..	140	...	.	16	896	16	855	16	855
	5th ,, ,, ...	13	724	14	574	2	154	..	8	..	...	16	736	16	833	12	589
	5th Goorkhas ...	16	734	8	620	3	106	.	170		...	16	896	16	762	11	544
	Bhopal Battalion	20	914	15	666	5	244		10		...	20	920	20	863	18	731
	Mhairwarra ,, ..	16	695	13	647	3	46	..	1	..	...	16	696	16	831	13	716
Madras Troops.	B Co., Sappers and Miners	2	117	2	119	.	...	...	..	...	...	2	119	2	116	2	116
	E Ditto	2	114	2	119	...	...					2	119	3	113	3	113
	K Ditto ...	2	119	2	119		...					2	119	1	107	1	107
	21st Madras Native Infantry.	16	691	15	648	1	81		.	.	32	16	729	16	663	16	646
	30th Ditto ditto .	15	680	15	678		10	1	9	..	...	16	697	16	699	15	655
Bombay Troops.	1st Sind Horse .	18	474	12	417	2	45	3	8	.		17	470	17	541	17	541
	3rd ,, .	19	473	17	434	2	39	.	1		.	19	474	19	550	17	445
	2nd Mountain Battery	3	165	2	140	1	25	.	7	1		3	172	2	150	2	144
	2nd Co., Sappers and Miners	2	94	2	119	..	..	.	...	.		2	119	2	114	2	114
	5th Ditto ..	2	96	1	95	.	.	1	24		..	2	119	2	115	2	115
	1st Bombay Native Infantry.	16	675	14	603	2	70		23			16	696	16	842	15	791
	19th Ditto	16	695	13	596		12	3	88	.	...	16	696	17	834	16	710
	29th Ditto	15	694	10	578	2	29	4	89	...	.	16	696	16	800	15	614
	30th Ditto	16	695	15	572	1	123	..	1	.	..	16	696	14	809	10	708
	Total ...	830	34,784	65	29,361	175	6,559	30	2,049	9	53	855	37,909	802	40,033	617	31,613

Office of the Adjutant General in India,
Head Quarters, Simla;
The 15th October 1879

1st October 1878, on leaving Station, and on 1st August 1879, &c.

Depot, &c		Casualties during time since 1st October 1878 to 31st July 1879, Died, killed, &c		Wanting to complete.		In Excess.		Are recruits of this last season of average stamp?	When did first batch join the ranks?	When will last batch join the ranks?	How many have been discharged from being unfit?
	Men.	Native Officers	Men.	Native Officers.	Men.	Native Officers	Men.				
4	111		42	2	..	..	..	Yes	1st December 1878 ..	1st November 1879 .	None
5	70	3	57	1	...		71	Yes	Prematurely joined for service requirements.	Depends upon marching of regiment.	6
8	243	.	37		..	2	87	From a third to a fourth slightly inferior, remainder average.	16th July 1879	End of year	7
6	153	1	58		.		69	Yes, with some exceptions ...	None have yet	joined ranks	19
6	163	1	58		.		83	Yes	December 1878	Shortly	9
1	22	2	22	.	.	1	58	Yes	7th January 1879	In 3 months	1
6	179		23	.	.	1	73	No	7th February ,,	Not known ...	7
	8	2	81	1	2	.	..	No	June ,,	6 months after return to India	3
2	936	5	83	4	.	..	13	Yes	,, ,, ...	About March 1880 ...	12
2	201		35	.	.	1	98	Yes		No information	2
0	353		98	1	..		113	Yes	9th April 1879 .	February 1880 ...	20
1	73	3	56	2	.		123	Yes . ..	1st January ,,	Nil	15
2	97	4	159	4			104	Recruits enlisted since 1st October 1878 are not equal in physique to those formerly enlisted.	Not yet	joined	28
6	206	6	199	4	..	...	70	Not quite	June 1879 .	May 1880	49
1	26	2	32	2	.		60	Far below	4th August ,,	6 months	
1	59	3	64	3	..	...	146	No Indifferent	18th July ,,	February 1880	12
5	173	1	192	1	1	..	...	The Sikhs and Dogras not of the average stamp	See next column .	40, end of September 1879	21
1	155	5	100	1	...	..	149	Dogras and Pathans good Punjabee Mussulman average Sikhs slightly inferior	None until they go	through Musketry ...	29
4	166		59	2	...		173	Yes	None	A few months	23
3	118	3	121	.	...	...	127	Mahomedans "Yes," Sikhs "below"	Not exercised in Musketry yet	6 months	15
2	108	5	89		...		131	No	None yet	6 months	16
6	152		85	..	..		59	Yes	Not till passed	In Musketry	22
5	213	2	147	...	..		126	Yes	Not yet passed in Musketry.	March 1880 . ..	43
3	189	2	71	1	..		94	Sikhs inferior, Mussulmans good	None joined	In 2 months	11
4	241	..	85		...		136	Yes	21st Nov 1878 .	April 1880	3
6	255	2	113	..	...		82	Yes	None dismissed, want of instructors at depôt	About Christmas 1879	7
3	337	..	27	..	...	.	184	Very fair	None yet	joined ranks	13
2	63	2	74	..	...	.	112	Up to authorized standard, but inferior to what are usually entertained.	1st April 1879 ...	January 1880	42
1	129	11	95	11	256		...	Yes	None	Whole about December 1879.	1
4	81	4	58	..	180	1	...	Yes	None yet	8 months	
1	204			1	168	.	...	Yes	Not until through	Musketry course	5
1	52	3	34	2	128		..	Yes	1st April 1879 ..	Probably 1 year	2
	25		13	1	..		5	Older and somewhat inferior ...	9th Aug. 1879	1 month ...	8
1	27		5	1	..		19	No	May ,,	September 1879	24
1	72	.	..	1	42		...	Yes	June ,, ...	,, ,, ..	14
	2		6	1	..		7	By our own parties, yes; by officers on special duty, no.	Feb ,, ...	Nil	2
	9		5	..	3	...	...	Yes	At drill	At drill	1
	128		75	.	17	.	...	Recruits at depôt	Nil.	Nil.	
1	133	2	64	..			34	Yes	18th August 1879 ...	4 months	4
5	158	4	106	1	..	..	53	Sikhs yes, Dogras and a few Rajpoots rather below.	1st April ,, ...	January 1880 .	6
0	362	2	208	.	...		77	Below	Not yet	concluded	29
8	238		177			..	136	Yes	3rd April 1879 ...	February 1880 .	10
2	80	1	95	1	.		106	Yes	1st July ,, ..	1st November 1879	17
1	318	1	167	1	59			No; unable to recruit at Quetta	None	In 10 months	17
	...	1	161		..		119	Yes With exception of two last batches from Amritsar.	23rd July 1879 .	31st December 1879	32
4	244	1	127	.	..		97	Not quite	3rd June ,, .	15th January 1880 .	14
5	218		22		..	.	56	Yes	None yet joined.		
2	122		57	.	67	..	...	Yes	None	8 months	
3	115	2	62	..	..	.	135	Yes	October 1878 ...	January 1880 ...	4
	.	.	3	.	3	...	...	Nil	Nil.		
			6	...	6	1	.	Nil	Nil.		
		1	10	1	7		..	Nil	Nil.		
	17	1	68		34		.	Yes	July 1879 ..	Nil.	
1	44	2	42	.	...	.	2	Yes	1st January ,, ...	When exercised in Musketry	
	..	..	10	..	...		71	Better	June ,, ...	None	
2	105		54	...	. .	.	80	Yes	6th August ,, . .	Spring 1880	1
	6	1	23	. .	22		..	Yes	Nil	Nil	10
	..		5	.	5	.	..	No recruits	Nil	Nil.	
			6	..	4	.		Ditto	Nil	Nil.	
1	51	7	69	..	.	..	146	Yes	27th November 1878	None	2
1	124		113	.	..	1	138	Yes	31st May 1879 ..	23rd March 1880	5
1	186		50				104	All at depôt	None ,,	None . . .	1
4	101	2	78	2			113	Those enlisted in Bombay are below. Those in Punjab good.	None until exercised	in Musketry	6
15	8,420	100	4,341	53	1,004	8	4,049				

G. R. SHAKESPEAR, *Captain,*

Depy. Asst. Adjutant General.

Return showing the average number of Recruits during the year 1878, in Regiments of Bengal Native Cavalry and Infantry.

Corps.	Number of Recruits.	Corps.	Number of Recruits.
1st Bengal Cavalry	17	17th Native Infantry	41
2nd " "	18	18th " "	64
3rd " "	25	19th " "	58
4th " "	17	20th " "	99
5th " "	32	21st " "	59
6th " "	7	22nd " "	65
7th " "	33	23rd " "	78
8th " "	24	24th " "	41
9th " "	40	25th " "	64
10th " Lancers	32	26th " "	69
11th " "	33	27th " "	58
12th " Cavalry	51	28th " "	61
13th " Lancers	26	29th " "	40
14th " "	16	30th " "	90
15th " Cavalry	12	31st " "	74
16th " "	42	32nd " "	53
17th " "	34	33rd " "	50
18th " "	10	34th " "	26
19th " Lancers	32	35th " "	22
		36th " "	56
Total Cavalry	501	37th " "	70
		38th " "	152
		39th " "	104
Sappers and Miners	86	40th " "	47
1st Native Infantry	57	41st " "	51
2nd " "	52	42nd " "	79
3rd " "	31	43rd " "	75
4th " "	39	44th " "	98
5th " "	24	45th " "	51
6th " "	39	1st Goorkhas	55
7th " "	60	2nd "	58
8th " "	32	3rd "	29
9th " "	63	4th "	51
10th " "	154		
11th " "	28	Total Infantry	3,089
12th " "	101		
13th " "	53	Total Cavalry	501
14th " "	59		
15th " "	57	General Total	3,590
16th " "	66		

			Percentage of Recruits.
Average strength of Native Army ...	Cavalry	8,644	5·79
	Infantry	35,975	8·58
	Total... ...	44,619	8

Nos. 18-20, dated Simla, 7th August 1879.

From—The Secretary to Army Organization Commission,

To—The Adjutants General in India, Madras and Bombay.

I have the honor to request that, under the orders of His Excellency the Commander-in-Chief the Army Organization Commission may be furnished, at an early date, with a return giving the following information in regard to the Native Army of the Bengal, Madras and Bombay Presidencies, and the Punjab Frontier Force:—

(1) The number of men in each regiment—
under 5 years' service.
over 5 and under 10 years.
" 10 " 15 "
" 15 " 25 "
" 25 years.

(2) Numbers discharged during the last five years under the above heads.

(3) Numbers pensioned.

No. 1016-D, dated Poona, 2nd September 1879.

From—The Adjutant General, Bombay Army,

To—The President, Army Organization Commission.

I have the honor to forward herewith the return called for in your letter No. 20 of the 7th ultimo.

Return showing the number of men in each Native Regiment of the Bombay Army in the under-mentioned periods of service.

Corps.	Number of men					
	Under 5 years' service.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years	Over 25 years	Total.
1st Regiment Light Cavalry ...	135	88	144	84	35	486
2nd " "	122	59	103	143	45	472
3rd " "	117	111	151	75	31	485
Poona Horse	131	83	104	128	46	493
1st Regiment Sind Horse	234	161	100	49	14	558
2nd " "	186	116	86	88	14	490
3rd " "	315	108	60	65	21	569
Governor's Body Guard	...	5	13	47	6	71
Aden Troop	33	24	25	16	2	100
Total Cavalry	1,273	755	786	695	215	3,724
No. 1 Mountain Battery	22	6	16	16	6	66
" 2 "	19	22	11	3	12	67
Total Native Artillery ...	41	28	27	19	18	133
Sappers and Miners	129	75	104	137	19	464
1st Regiment Native Infantry	297	146	295	109	14	861
2nd " "	235	132	139	134	25	665
3rd " "	219	182	111	141	35	688
4th " "	242	72	159	194	23	690
5th " "	247	142	103	174	27	693
6th " "	260	155	134	122	29	700
7th " "	235	116	145	165	44	705
8th " "	241	170	118	146	16	691
9th " "	225	123	152	172	34	706
10th " "	260	77	208	119	40	704
11th " "	202	161	105	188	27	683
12th " "	175	129	168	182	17	671
13th " "	192	95	184	173	45	689
14th " "	261	115	114	189	33	712
15th " "	138	123	151	233	39	684
16th " "	267	97	190	94	14	662
17th " "	189	126	145	211	21	692
18th " "	209	131	105	151	28	624
19th " "	201	285	202	136	27	851
20th " "	275	115	165	136	15	706
21st " "	255	124	175	144	10	708
22nd " "	182	102	174	112	12	682
23rd " "	249	162	197	85	16	709
24th " "	264	155	173	94	21	707
25th " "	200	223	122	96	35	676
26th " "	223	196	126	100	24	669
27th " "	293	116	165	111	13	698
28th " "	207	159	208	86	41	701
29th " "	321	169	205	97	24	816
30th " "	287	206	120	35	5	653
Total Infantry	7,161	4,304	4,758	4,119	754	21,096
Grand Total	8,604	5,162	5,675	4,970	1,006	25,417

ADJUTANT GENERAL'S OFFICE,
Poona;
2nd September 1879.

H. BROOKE, *Brigadier General,*
Adjutant General, Bombay Army.

Statement showing the number of men discharged in the Bombay Native Army during the last five years (from 1st July 1874 to 30th June 1879).

Under 5 years' service	941
Over 5 and under 10 years' service	439
Over 10 and under 15 years' service	209
Over 15 and under 25 years' service	53
Over 25 years' service	5
Total	1,647

Note.—The 29th Native Infantry is not included in this Statement. The regiment being on service, and the records divided, the required information is not forthcoming.

Statement showing the number of men pensioned in the Bombay Native Army during the last five years (from 1st July 1874 to 30th June 1879).

Under 5 years' service	
Over 5 and under 10 years' service	
Over 10 and under 15 years' service	14
Over 15 and under 25 years' service	3,752
Over 25 years' service	1,496*
TOTAL	5,262

ADJUTANT GENERAL'S OFFICE, POONA; *2nd September 1879.*

H. BROOKE, *Brigadier General, Adjutant General, Bombay Army.*

* Includes 3 native officers dismissed on reduced pension for misconduct.

No. 589, dated Ootacamund, 10th September 1879.

From—Brigadier-General F. W. JEBB, Adjutant-General, Madras Army,

To—The Secretary to the Commission on Army Organization and Expenditure.

With reference to your letter of the 7th August 1879, No. 19, I have the honor to forward a return giving the information therein required, in regard to the service and numbers discharged and pensioned of men of the Native Army of the Madras Presidency.

2. A supplemental return for the 23rd Regiment Native Infantry at Port Blair will be forwarded hereafter.

Return shewing the number of men of all ranks on the strength of each Corps of the Native Army of the Madras Presidency on the 1st August 1879, with their service; also the number of men discharged and pensioned during the last five years, namely, from 1st August 1874 to 31st June 1879.

Corps.	Under 5 years' service.			Over 5 and under 10 years' service.			Over 10 and under 15 years' service			Over 15 and under 25 years' service			Over 25 years' service.			Total number of men of all ranks on the strength of each regiment on 1st August 1879	Total number discharged in each regiment during last 5 years.	Total number pensioned in each regiment during last 5 years.
	Number of men on the strength of the regiment	Number discharged during last 5 years.	Number pensioned during last 5 years	Number of men on the strength of the regiment	Number of men discharged during last 5 years	Number of men pensioned during last 5 years.	Number of men on the strength of the regiment	Number of men discharged during last 5 years.	Number of men pensioned during last 5 years	Number of men on the strength of the regiment	Number of men discharged during last 5 years.	Number of men pensioned during last 5 years.	Number of men on the strength of the regiment	Number of men discharged during last 5 years.	Number of men pensioned during last 5 years.			
Cavalry.																		
1st Regiment Light Cavalry	164	6	..	18	..	...	15	1	...	71	1	6	72	..	47	340	8	53
2nd " ...	194	10		6	..	...	27	...	...	63	...	12	56	...	90	346	10	102
3rd " ...	143	3	10	12	...	...	30	...	...	76	1	16	59	...	60	320	4	86
4th " ...	201	9	...	9	...	...	18	...	1	38	..	7	90	...	109	356	9	117
Governor's Body Guard ...	26	...	...	4	...	...	15	...	...	54	2	11	25	...	7	124	2	18
Infantry.																		
1st Regiment Native Infantry	216	18	.	84	6	...	63	3	...	178	4	108	90	1	91	631	32	199
2nd " "	197	21	.	157	10	..	111	2	.	163	6	66	69	...	34	697	39	100
3rd " Light Infantry	194	7	...	146	5	.	119	3	..	191	3	58	44	...	33	694	18	91
4th " Native Infantry	223	10	.	150	13	1	128	2	1	140	1	103	64	...	56	705	26	161
5th " " .	194	14	..	143	7	...	88	4	...	203	..	62	75	..	34	703	25	96
6th " " .	117	6	.	160	2	.	105	1	.	136	1	53	134	..	47	652	10	100
7th " " .	136	14	...	163	8	.	63	2	.	195	2	93	80	...	52	617	26	145
8th " "	190	8	..	202	9	...	85	...	.	147	...	69	68	..	43	692	17	111
9th " " ..	195	17	...	141	12	...	150	2	..	154	3	117	59	...	29	699	34	146
10th " " ..	234	3		66	5	.	91	.	..	42	..	69	241	..	72	674	8	141
11th " " ..	160	2	.	150	6	..	96	..	1	220	2	66	65	...	36	681	10	103
12th " " .	133	8	..	149	4	..	57	2	.	198	3	66	115	...	71	652	17	137
13th " "	152	13	..	71	16	1	151	10	...	234	1	66	79	...	53	687	40	120
14th " " .	213	26	...	105	10	1	131	3	1	170	1	120	48	.	49	667	40	174
15th " " ..	218	11	...	132	8	1	124	3	..	168	...	94	70	..	54	712	22	149
16th " " .	198	12		164	7	.	86	2		169	2	80	68	..	52	705	23	132
17th " " ...	188	2	..	115	5	2	147	...	..	146	2	68	88	..	78	684	9	143
19th " " ...	79	23	...	53	10	...	211	3	...	205	2	87	141	...	24	689	38	111
20th " " .	181	7	..	113	2		159	5	.	196	5	82	48	1	44	697	20	126
21st " "	145	9	..	117	10	...	117	4		239	2	85	61	.	44	679	25	129
22nd " " ...	208	17	.	148	7	...	90	5	...	187	...	83	45	..	61	678	29	144
23rd " "	158	28	...	172	7	.	90	2	..	222	..	87	52	1	35	694	38	122
24th " "	222	29		130	11	...	99	2	...	142	1	125	73	.	68	666	43	193
25th " "	235	33	1	207	8	.	76	2	...	152	2	134	37	...	41	707	45	176
26th " " .	175	17	..	121	4	..	113	..	..	200	3	97	80		46	689	24	143
27th " "	271	26	..	86	7	...	93	3	...	149	...	87	89	1	71	688	37	158
28th " " .	197	21	..	148	7	...	91	3	..	163	1	58	77	..	46	676	32	104
29th " " .	225	17	...	60	11	...	88	1	...	265	7	98	63	..	55	701	36	153
30th " " ..	144	9	..	166	3	...	68	1	.	272	3	56	85	.	43	715	16	99
31st " Light Infantry	131	10	.	151	7	1	66	2	..	235	2	41	89	.	34	672	21	76
32nd " Native Infantry	214	14		102	9	..	127	9	...	178	2	78	58	..	39	679	34	117
33rd " " ..	172	11	.	121	7	..	88	2	.	208	4	68	92	.	82	681	24	150
34th " " ..	208	14	.	107	11	...	146	11	1	149	2	91	69	1	67	678	39	159
35th " " ..	192	15		164	10	...	94	2	...	169	1	110	53	..	55	672	28	165
36th " " ..	120	27	.	129	10	..	138	...	..	270	3	94	116	.	31	773	40	125
37th " " ...	187	17		151	6	...	97	.	..	128	4	110	62	1	69	625	28	179
38th " " ...	178	21	.	141	2	...	88	4	1	212	1	71	63	...	57	681	29	129
39th " " ...	231	20	...	157	3	1	114	4	..	156	..	92	46	..	49	704	27	142
40th " " ..	202	27	.	116	8	.	111	15	1	218	2	75	21		15	668	52	91
41st " " .	169	15	...	118	6	...	93	2	...	185	...	71	101	..	59	686	23	130
"Queen's Own" Sappers and Miners ..	292	12	...	270	16	1	239	7	1	392	11	162	58	...	30	1,251	46	194

ADJUTANT GENERAL'S OFFICE, *Ootacamund, 10th September 1879.*

J. W. JEBB, *Brigadier General, Adjutant General.*

No. 1823, dated Fort Saint George, 12th September 1879.

From—Brigadier-General F. W. JEBB, Adjutant-General, Madras Army,

To—The Secretary to the Commission on Army Organization and Expenditure.

I have the honor to forward the supplemental return for the 23rd Regiment Madras Light Infantry, referred to in this office letter No. 589, dated Ootacamund, 10th September 1879.

Supplemental Return showing the number of men of all ranks on the strength of the 23rd Regiment Light Infantry on the 1st August 1879, with their service; also the number of men discharged and pensioned during the last five years, namely, from 1st August 1874 to 31st July 1879.

CORPS	UNDER 5 YEARS, SERVICE.			OVER 5 AND UNDER 10 YEARS' SERVICE.			OVER 10 AND UNDER 15 YEARS' SERVICE.			OVER 15 AND UNDER 25 YEARS' SERVICE			OVER 25 YEARS' SERVICE			Total number of men entered in the 1st columns of the headings to correspond with the monthly return dated 1st August 1879.	REMARKS
	Number of men on the strength of the regiment	Number discharged during the last 5 years.	Number pensioned during the last 5 years	Number of men on the strength of the regiment	Number discharged during the last 5 years.	Number pensioned during the last 5 years.	Number of men on the strength of the regiment.	Number discharged during the last 5 years	Number pensioned during the last 5 years.	Number of men on the strength of the regiment.	Number discharged during the last 5 years.	Number pensioned during the last 5 years.	Number of men on the strength of the regiment.	Number discharged during the last 5 years.	Number pensioned during the last 5 years.		
23rd Regiment Madras Light Infantry ...	158	28	..	172	7	...	90	2	.	222	...	87	52	1	35	694	

A. R. CLEPHANE, *Colonel,*
Deputy Adjutant General.

No. 690R., dated Simla, 15th October 1879.

Memo. from—Captain G. R. SHAKESPEAR, Deputy Assistant Adjutant-General,

To—The Secretary to the Commission on Army Organization and Expenditure.

Forwarded*, in compliance with his letter No. 18, dated 7th August 1879.

* Return shewing strength on 1st August 1879, and the numbers discharged and pensioned during the last five years in the Native Army of Bengal and the Punjab Frontier Force.

Return shewing the strength on the 1st August 1879, the numbers who have been discharged and pensioned during the last five years, with their periods of service in the Native Army of the Bengal Presidency and Punjab Frontier Force.

Corps.	STRENGTH ON 1st AUGUST 1879.													NUMBERS DISCHARGED DURING LAST 5 YEARS.												NUMBERS PENSIONED DURING LAST 5 YEARS.											
	Service.													Service.												Service.											
	Officers.						Men.							Officers.						Men.							Officers.						Men.						
	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.
1st Bengal Cavalry	...	...	...	4	7	11	151	108	96	83	40	478	489	...	...	...	...	...	..	29	13	8	4	...	54	54	...	..	...	..	6	6	..	...	...	20	38	58	64
2nd Ditto	...	...	...	2	7	9	170	103	77	97	43	490	499	...	...	.	...	...	..	22	7	1	...	...	30	30	...	...	...	...	5	5	...	...	...	34	52	86	91
3rd Ditto	...	1	1	5	6	13	256	115	82	65	4	522	535	...	...	...	..	...	...	36	9	1	...	...	46	46	..	...	...	2	5	7	...	1	...	81	2	84	91
4th Ditto	1	...	2	5	5	13	195	83	110	84	11	483	496	..	...	...	..	...	...	66	18	21	1	...	106	106	...	...	...	1	4	5	...	...	...	25	30	55	60
5th Ditto	...	1	2	5	4	12	201	126	78	80	12	497	509	1	...		...	...	1	87	34	6	2	1	130	131	..	...	...	1	2	3	1	2	1	45	16	65	68
6th Ditto	...	..	2	5	6	13	199	101	93	26	77	496	509	...	.	...	2	1	3	52	16	12	4	...	84	87	..	...	...	...	4	4	...	...	1	47	11	59	63
7th Ditto	1	1	1	4	4	11	194	86	130	83	31	524	535	..		...	..	...	...	94	9	3	...	...	106	106	..	...	...	...	6	6	...	...	...	36	46	82	88
8th Ditto	...	1	1	5	4	11	141	165	82	45	11	444	455	...	..	...	...	...	...	59	12	7	...	...	78	78	..	...	.	...	6	6	..	...	...	46	33	79	85
9th Ditto	...	...	...	5	6	11	183	111	77	80	11	462	473	...	...	...	...	...	.	58	29	7	...	...	94	94	...	...	..	2	1	3	1	...	...	78	6	85	88
10th Bengal Lancers	...	1	...	8	3	12	253	124	70	66	2	515	527	...	...		...	.	...	87	24	9	..	...	120	120	...	...		1	3	4	...	...	...	79	2	81	85
11th Ditto	2	...	3	8	2	15	207	107	118	97	2	531	546	...	..	...	...	...	...	45	12	6	...	...	63	63	...	...	...	..	1	1	..	..	2	48	...	50	51
12th Bengal Cavalry	1	...	...	10	2	13	236	137	59	72	9	513	526	...	...	...	...	...	...	98	14	10	2	..	124	124		..		4	3	7	...	.	.	54	3	57	64
13th Bengal Lancers	..	1	3	5	4	13	254	86	68	110	9	527	540	...	.	...		.	...	52	15	6	1		74	74	..	..	..	1	2	3	...	...	...	75	7	82	85
14th Ditto	...	1	..	10	3	14	191	106	115	96	4	512	526	.	...		...	...	...	42	18	5	1	...	66	66	...	.	.	...	3	3	...	...	..	40	2	42	45
15th Bengal Cavalry	1	3	...	1	9	14	185	106	87	114	25	517	531	...	...	...	...	...	...	18	13	4	..	...	35	35	..	...	...	...	1	1	...	...	...	51	11	62	63
16th Ditto	2	2	1	6	1	12	243	128	56	81	1	509	521	1	...	...	1	1	3	59	29	11	..	...	99	102	...		...	4	4	8	...	.	.	90	6	96	104
17th Ditto	...	...	...	11	2	13	251	112	69	86	2	520	533	...	...	...	...	..	...	81	30	8	2	...	121	121	.	.	...	3	4	7	...	...	...	71	4	75	82
18th Ditto	...	3	...	6	2	11	242	166	71	44	13	536	547	...	...	1	...	..	1	69	24	4	1	...	98	99	...	.	...	2	2	4	...	1	...	37	10	48	52
19th Bengal Lancers	...	1	1	8	2	12	169	117	55	93	8	442	454	..	...	...	..	..	.	49	26	2	1	...	78	78		..	...	4	2	6	...	.		43	6	54	60
Total Cavalry	8	16	17	113	79	233	3,921	2,187	1,593	1,502	315	9,518	9,751	2	...	1	3	2	8	1,103	352	131	19	1	1,606	1,614	...	...	..	25	64	89	2	4	4	1,005	285	1,300	1,389

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Return shewing the strength on the 1st August 1879, the numbers who have been discharged and pensioned during the last five years, with their periods of service in the Native Army of the Bengal Presidency and Punjab Frontier Force—continued.

Corps.	STRENGTH ON 1st AUGUST 1879.													NUMBERS DISCHARGED DURING LAST 5 YEARS.												NUMBERS PENSIONED DURING LAST 5 YEARS											
	SERVICE.													SERVICE.												SERVICE.											
	Officers.						Men.							Officers.						Men.							Officers.						Men.					
	Under 5 years	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years	Total.	Total officers and men.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.
32nd Native Infantry.	...	...	...	15	1	16	314	218	49	188	9	778	794	..	.	..	...	...	...	63	9	4	4	...	80	80	...	...	...	4	..	4	..	...		124	...	124	128
33rd Ditto ...	..	.	...	10	6	16	363	185	139	149	1	837	853	...	..	...	..	...	...	165	10	6	1	...	182	182	...	...	...	4	1	5	...	..	1	98	...	99	104
34th Ditto ...	...	1	1	13	1	16	270	165	182	85	...	702	718	...	...	...	...	...	...	29	11	9	2	...	51	51	...	...	...	3	2	5	..	..	3	127	3	133	138
35th Ditto ...	..	...	1	5	9	15	336	241	177	46	2	802	817	...		...	...	...	...	60	27	16	1	...	104	104	...	...	...	4	1	5	1	...	...	64	...	65	70
36th Ditto ...	1	...	1	11	1	14	461	144	162	42	1	810	824	.	...		2	...	2	211	54	21	13	...	299	301	.	...	...	2	2	4	...	...	...	79	...	79	83
37th Ditto ...	...	...	...	13	3	16	373	238	138	127	...	876	892	...	...	...	...	...	...	106	33	32	6	...	177	177	...	...		1	6	7	...	...	.	112	2	114	121
38th Ditto ..	...	...	2	6	.	8	567	44	50	17		678	686	..	...		...	...	...	452	58	37	7	...	554	554	...	...	..	2	11	13	...	...	.	156	6	162	175
39th Ditto ...	...	...	...	8	8	16	462	174	165	79	...	880	896		...	..		...	...	89	8	1	...	..	98	98	...	...	...	3	4	7	.	...	.	86	4	90	97
40th Ditto ...	...	...	...	10	6	16	431	152	183	97	1	864	880		..	...	...	...	...	49	13	7	2	1	72	72	...	.	...	3	1	4	...	...	...	114	2	116	120
41st Ditto ...	1	...	4	10	1	16	495	174	151	51	1	872	888	...	...	...	1	...	1	53	56	32	6	...	147	148	...	...	..	6	3	9	...	...	...	105	1	106	115
42nd Ditto ..	...	...	...	10	6	16	344	218	198	84	1	845	861	...	..	..	...	...	...	88	57	23	1	...	169	169	...	...	..	1	8	9	1	...	1	112	6	120	129
43rd Ditto ...	...	...	...	5	10	15	298	224	275	63	4	864	879	...	...	...	...	...	...	58	47	39	...	...	144	144	...	...	...	...	7	7	..	...	7	42	10	59	66
44th Ditto ..	...	...	...	11	5	16	294	219	254	86	2	855	871	...	...	...	...	...	...	49	47	21	2	1	120	120		...	...	...	6	6	...	3	...	99	4	106	112
45th Ditto ...	1	...	1	14	...	16	396	245	159	8	...	808	824	...	...	...	1	...	1	146	45	17	2	...	210	211	...	...	...	3	1	4	...	...	...	91	...	91	95
1st Goorkhas ...	...	...	...	...	5	5	239	174	123	100	29	665	670	...	...	..	...	...	...	38	22	12	1	...	73	73	..	...	...	...	19	19	...	1	...	47	55	103	122
2nd Ditto ...	...	..	..	2	15	17	248	141	110	211	31	741	758	...	...	...	...	...	...	15	17	4	2	...	38	38	...	...	...	..	11	11	...	...	...	51	37	88	99
3rd Ditto ..	...	...	...	5	10	15	334	152	188	127	12	813	828	..	...	...	...	...	...	47	28	24	4	1	104	104	...	.	.	...	11	11	...	...	...	111	7	118	129
4th Ditto	.	.	...	8	6	14	258	160	177	169	4	768	782	..	...	...	...	...	...	40	16	23	1	...	80	80	...	...	...	1	1	2	...	...	...	73	...	73	75
Total Infantry ..	20	7	25	377	303	732	19,106	9,727	7,339	4,626	298	41,096	41,828	3	...	1	9	2	15	5,728	1,921	804	107	9	8,569	8,584	...	...	...	88	274	362	8	27	19	4,102	539	4,695	5,057

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ABSTRACT.

	Service. Officers.						Service. Men.							Remarks.
	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Under 5 years.	Over 5 and under 10 years.	Over 10 and under 15 years.	Over 15 and under 25 years.	Over 25 years.	Total.	Total officers and men.	
Strength on 1st August 1879.														
Cavalry	14	18	24	148	122	326	5,644	2,983	2,152	2,007	434	13,220	13,546	
Artillery	1	...	...	6	4	11	536	207	134	73	15	965	976	
Infantry	22	8	34	454	386	904	23,736	11,994	8,661	5,504	349	50,244	51,148	
Total ...	37	26	58	608	512	1,241	29,916	15,184	10,947	7,584	798	64,429	65,670	
Numbers discharged during last 5 years.														
Cavalry	3	...	2	3	3	11	1,594	542	208	34	3	2,381	2,392	
Artillery	...	...	...	...	...	...	58	15	4	...	...	77	77	
Infantry	3	...	1	11	3	18	7,186	2,525	1,028	162	10	10,911	10,929	
Total ...	6	...	3	14	6	29	8,838	3,082	1,240	196	13	13,369	13,398	
Numbers pensioned during last 5 years.														
Cavalry	...	...	...	31	79	110	5	6	9	1,411	393	1,824	1,934	
Artillery	...	...	...	1	4	5	...	...	...	42	9	51	56	
Infantry	..	...	...	99	304	403	16	30	22	4,955	619	5,642	6,045	
Total ...	...	...	...	131	387	518	21	36	31	6,408	1,021	7,517	8,035	

NOTE.—The Guides Infantry are included in the Cavalry.

OFFICE OF ADJUTANT GENERAL IN INDIA;
HEAD-QUARTERS,
Simla, 15th October 1879.

G. R. SHAKESPEAR, *Captain,*
Deputy Assistant Adjutant General.

Return shewing the average number of men in receipt of good conduct pay on the 1st July, during the past five years, in Regiments of Bengal Native Cavalry and Infantry.

Corps.	At Rs. 3.	At Rs. 2.	At Re. 1	Total.	Corps.	At Rs. 3.	At Rs. 2.	At Re. 1	Total.
1st Bengal Cavalry	91	83	107	281	16th Native Infantry	65	201	135	401
2nd " " ...	110	74	101	285	17th " " ...	62	203	198	463
3rd " " ...	52	61	138	151	18th " " ...	17	122	218	357
4th " " ...	78	101	78	257	19th " " ...	26	98	222	346
5th " " ...	39	83	128	250	20th " " ...	20	126	186	332
6th " " ...	82	76	111	269	21st " " ...	21	96	207	324
7th " " ...	92	97	87	276	22nd " " ...	10	106	225	341
8th " " ...	38	54	142	234	23rd " " ...	45	118	196	359
9th " " ...	55	91	96	242	24th " " ...	30	114	214	358
10th Bengal Lancers	44	61	119	224	25th " " ...	12	123	219	354
11th " " ...	46	113	116	275	26th " " ...	23	78	176	277
12th Bengal Cavalry	54	56	124	234	27th " " ...	46	122	194	362
13th Bengal Lancers	92	67	92	251	28th " " ...	46	128	188	362
14th " " ...	34	103	129	266	29th " " ...	37	92	173	302
15th Bengal Cavalry	86	91	107	284	30th " " ...	19	99	218	336
16th " " ...	37	87	116	240	31st " " ...	17	132	207	356
17th " " ...	74	49	111	234	32nd " " ...	109	181	167	457
18th " " ...	47	56	138	241	33rd " " ...	38	201	177	416
19th Bengal Lancers	47	96	117	260	34th " " ...	38	191	187	416
					35th " " ...	24	151	211	386
Total Cavalry ...	1,198	1,499	2,157	4,854	36th " " ...	14	102	199	315
					37th " " ...	51	164	191	406
Sappers and Miners	68	373	328	769	38th " " ...	15	114	98	227
1st Native Infantry	26	168	229	423	39th " " ...	16	137	196	349
2nd " " ...	55	238	195	488	40th " " ...	105	224	162	491
3rd " " ...	64	191	146	401	41st " " ...	14	139	189	342
4th " " ...	46	138	238	422	42nd " " ...	46	177	271	494
5th " " ...	38	202	202	442	43rd " " ...	19	205	295	519
6th " " ...	32	142	198	372	44th " " ...	41	213	274	528
7th " " ...	55	221	154	430	45th " " ...	8	76	242	326
8th " " ...	25	195	198	418	1st Goorkhas ...	102	175	187	464
9th " " ...	21	164	201	386	2nd " ...	191	196	163	550
10th " " ...	26	116	129	271	3rd " ...	76	209	192	477
11th " " ...	38	221	201	460	4th " ...	71	223	178	472
12th " " ...	5	155	183	343	Total Infantry	2,042	7,988	9,976	20,006
13th " " ...	21	162	196	379	Total Cavalry	1,198	1,499	2,157	4,854
14th " " ...	33	126	202	361	GENERAL TOTAL	3,240	9,487	12,133	24,860
15th " " ...	15	140	221	376					

NOTE—The Rs. 3 rate only sanctioned for infantry since 1877.

			Percentage of men in receipt of good conduct pay to strength.
Average strength (Drummers, Sowars, and Sepoys).	Cavalry	7,463	65
	Infantry	32,106	62
	Total ...	39,569	63

Statement showing numbers of European Officers with Corps employed on Field Service in Afghanistan.

Regiment	Number of British officers present on 1st September 1878.	Subsequently joined.	Became non-effective.	Remaining on 31st December 1878.
6th Bengal Cavalry	6	2	1	7
10th " "	4	3	3	4
11th " "	5	2	...	7
12th " "	5	2	...	7
13th " "	3	6	...	9
19th " "	4	5	1	8
1st Punjab Cavalry	3	4	...	7
2nd " "	5	5	..	10
5th " "	4	3	1	6
1st Sind Horse	5	2	1	6
3rd " "	4	4	...	8
Total ...	48	38	7	79
Average of Cavalry ...	4·365	3·454	·654	7·181

Regiment.	Number of British officers present on 1st September 1878.	Subseqnently joined.	Became non-effective.	Remaining on 31st December 1878.
2nd Bengal Native Infantry ...	2	5	1	6
6th „ „ „ ...	4	2	...	6
12th „ „ „ ...	4	4	1	7
14th „ „ „ ...	4	3	1	6
15th „ „ „ ...	5	3	1	7
19th „ „ „ ...	4	3	...	7
20th „ „ „ ..	4	4	1	7
21st „ „ „ ...	3	4	1	6
23rd „ „ „ ...	6	1	1	6
24th „ „ „ ...	4	2	1	5
25th „ „ „ ...	3	5	1	7
26th „ „ „ ...	3	5	...	8
27th „ „ „ ...	5	5	5	5
28th „ „ „ ...	5	2	1	6
29th „ „ „ ...	4	5	2	7
32nd „ „ „ ...	6	3	3	6
45th „ „ „ ...	6	1	1	6
1st Goorkha Regiment	5	5	3	7
2nd „ „	7	...	2	5
3rd „ „	5	4	...	9
4th „ „	6	3	3	6
Corps of Guides	7	3	1	9
1st Sikh Infantry	4	5	3	6
2nd „ „	4	3	...	7
1st Punjab Infantry	5	4	1	8
2nd „ „	4	5	3	6
5th „ „	4	5	...	9
5th Goorkha Regiment	5	5	3	7
Bhopal Battalion	2	2	...	4
Mhairwarra Battalion	1	3	...	4
30th Madras Native Infantry ...	5	2	...	7
36th „ „ ...	7	3	3	7
1st Bombay Native Infantry ...	8	2	3	7
19th „ „ ...	5	3	1	7
29th „ „ ...	5	2	...	7
30th „ „ ...	4	4	1	7
Total ...	165	120	48	237
Average of Infantry ...	4·583	3·333	1·333	6·583

APPENDIX XXXIII.

Statement shewing the Cost of Pensions and Gratuities to the Native Army, with regard to the alterations proposed by the Commission.

BENGAL ARMY.

Numbers.	Ranks.	Approximate number on superior rate of pension.	Gratuities in addition to Ordinary pension.				Comparison.	
			Approximate number on ordinary pension *plus* gratuity.	Average amount of one month's pay of each rank.	Multipliers or number of years' service divided by 2.	Amount of gratuity for total number of each rank.	Amount for 12 months of superior rate of pension and of 12 months' ordinary pension *plus* gratuity.	Amount of pay for 12 months.
						Rs.	Rs.	Rs.
4	Cavalry Woordie Majors.	1	3	× 120 × 11		3,960	5,640	7,200
80	Infantry Subadars	27	53	× 90 × 12		55,440	90,720	86,400
80	„ Jemadars	20	60	× 45 × 11		29,700	46,500	43,200
400	„ Havildars	50	350	× 14 × 10		49,000	85,600	67,200
400	„ Naicks...	40	360	× 12 × 10		43,200	79,200	57,600
160	„ Drummers	50	110	× 7 × 10		7,700	24,100	13,440
			Totals ...			1,89,000	3,31,760	2,75,040

Statement shewing the cost of Pensions and Gratuities to the Native Army, with regard to the alterations proposed by the Commission,—(continued.)

Numbers.	Ranks.	Approximate number on superior rate of pension.	Gratuities in addition to ordinary pension.				Comparison.	
			Approximate number on ordinary pension *plus* gratuity.	Average amount of one month's pay of each rank.	Multipliers or number of years' service divided by 2.	Amount of gratuity for total number of each rank.	Amount for 12 months of superior rate of pension and of 12 months' ordinary pension *plus* gratuity.	Amount of pay for 12 months.
	Madras Army.							
						Rs.	Rs.	Rs.
128	Subadars ...	125	3	× 90	× 12	3,240	79,320	1,38,240
128	Jemadars ...	105	23	× 45	× 11	11,385	47,025	69,120
657	Havildars ...	150	507	× 14	× 10	70,980	1,35,168	1,10,376
630	Naicks ...	80	550	× 12	× 10	66,000	1,23,720	90,720
250	Trumpeters and Drummers.	80	170	× 11	× 10	18,700	44,500	33,000
18	Farriers ...	6	12	× 17	× 10	2,040	3,912	3,672
			Totals ...			1,72,345	4,33,645	4,45,128
	Bombay Army.							
40	Subadars ...	14	26	× 90	× 12	28,080	45,840	43,200
40	Jemadars ...	10	30	× 45	× 11	14,850	23,250	21,600
200	Havildars ...	25	175	× 14	× 10	24,500	42,800	33,600
200	Naicks ...	20	180	× 12	× 10	21,600	39,600	28,800
80	Drummers ...	25	55	× 7	× 10	3,850	8,590	6,720
			Totals ...			92,880	1,60,080	1,33,920

APPENDIX XXXIV.

Reduction of the Madras Army.

Extract from the answers of Sir C. E. Trevelyan, K.C.B., *to the questions proposed by the Select Committee on East India Finance, appointed 7th February 1873.—Pages 59, 61, and 144.*

824. May we now go to the consideration of what remedies you suggest to put an end to the causes of financial embarrassment which has recently taken place?

First of all certainly reduction of expenditure. There is a great reduction required in the military expenditure, not in the details, but in the general arrangements, to revise the general military arrangements in a manner suited to the circumstances of the present time. These great armies, formerly maintained by Native Powers, have ceased to exist, and their teeth have been drawn by taking away their guns. We have an overpowering force of artillery; and the great Bengal native army, which was a source of great anxiety, so much so that the principal use of the European army was to keep it in check, has disappeared. On the other hand, the people of many parts of India have not only ceased to carry or use arms, but they have lost the habit and idea of using them. That is remarkably the case in the south of India; there is no part of Her Majesty's dominions where the people are so amenable to law, so quiet, and so peaceably disposed as they are all through the Madras Presidency, so much so that the Madras native army itself has lost its military character; it has become a sort of family arrangement, and the Committee may have observed that for many years no Madras regiments have been sent on any foreign expedition; they have always been employed to keep the peace at home.

825. (*Sir S. Northcote*).—Except the engineers to Abyssinia?

There is a very remarkable body of pioneers; they were employed upon the anicuts and other public works, and they did good service in Abyssinia, no doubt.

826. (*Mr. Bourke*).—Burma is another case, is it not? They merely keep the peace in Burma.

827. But they were there in the war? That was a good while ago.

828. (*Chairman*).—Was it not a consideration in sending Madras sepoys abroad that they had less difficulty in question of caste than those of Bengal? Yes: but it is a fact that the famous old coast army, which not merely established our supremacy in the south of India, but formed the nucleus of the Bengal native army, and fought the battle of Plassy, so that the principal Bengal regiments to the day of their death were called after their old Madras officers, has become a very peaceable, unmilitary, respectable sort of body. Then, too, the configuration of the Peninsula must be remembered; it narrows to a point; it is approachable by sea on both sides, and now it is traversed by railways in various directions; so that there is a great call for a considerable reduction of military force in the

south of India, and all these considerations apply more or less to the Bombay army. Then an additional reason is, that an excellent police, which, although local, is organised, and is quite sufficient to maintain the peace of the country, except in case of any serious insurrection or invasion, and to do all the ordinary duty of jails and guards of treasure, and so forth, has been established. Sir Patrick Grant, who was Commander-in-Chief when I was at Madras, and I recommended that the Madras army should be reduced from 52 regiments to 40 regiments. It was actually reduced to 44, and the Government of India has since recommended that a further reduction should be made, and obviously it ought to be made in every point of view, both to save expense and to send the people to their homes where they would add to the productive population. In fact, as regards the south of India, a single well-equipped division at Bangalore with an outpost at Madras, and a European regiment for the garrison at Madras, is all that is required.

* * * * * * * * *

842. (*Mr. R. Fowler*).—You spoke of one native army corps for Madras; of how many men would that consist? It would be a very moderate one.

843. Twenty thousand men? No, nothing of the sort; less than half that; it would be a strong division, that would be all, including all arms, horse, foot, and artillery, with a certain proportion fully equipped for active service.

* * * * * * * * *

1518. (*Mr. Beach*).—With reference to the reduction of the Madras army, is there not a strong impression that considering their loyalty during the time of the mutiny they were hardly treated? No; it was no loss to them to return to their homes; they are eminently domestic in their character, and I speak from positive experience. I arranged that large first reduction of the Madras army after the mutiny with Sir Patrick Grant. Besides the rifle regiment, and the four extra regiments, and the two veteran battalions, and the large regiment of sapper militia, all which were disbanded, we reduced the strength of the 52 regular regiments of Madras native infantry from 1,000 privates to 700, and native officers in proportion, and we were prepared for some murmuring, but to our great surprise and delight we found that the sepoys were only too glad to return to their homes with the money they had saved during the war and the month's pay for every year's service which we gave them, and so it would be with any number of Madras regiments that might be reduced; the demand for agricultural labor is so great, and the profits of agriculture are so high, that by far the best thing that class of people can do is to return to their homes and resume their agricultural pursuits.

APPENDIX XXXV.

Opinions of Lord Mayo and Lord Sandhurst on the reduction of the Madras Army.

Extract from a Minute by LORD MAYO, *Viceroy of India, on military reduction, dated 3rd October 1870.*

* * * * * * * * *

The statement that the Madras army is larger then is necessary for the wants of the Presidency is not a matter of argument; it is a matter of fact which has been asserted not only by the Government of India, but by the leading members of the Government of the Presidency.

If large reductions in the native army are imposed upon us as necessary and desirable, we are bound to consider which branch of the service can be weakened with the least possible risk.

Can any one, after reading the many opinions recorded in these papers, entertain a doubt that, if presidential feelings and jealousies were disregarded, and sound principles adopted, the weight of reduction would fall upon the least efficient branch of the service?

I sympathise most fully with the feelings of the gallant officers of the Madras army, and think it most unfortunate that the nature of their service has deprived them of those opportunities of winning honours and distinctions which have fallen to the lot of their more fortunate comrades of the northern and western armies. It will ever be my object to remedy by any means in my power what I consider to be a recognised grievance.

I say nothing against the Madras army; my remarks are only comparative. The opinions of various Governments of India and Commanders-in-Chief have always been expressed in the same direction. Though styled the coast army, and supposed by its composition to be better suited to foreign service than the other forces of the empire, it appears that it has not been thought desirable always so to employ it.

* * * * * * * * *

I can never believe that the existence of the Madras army provides us with a really efficient reserve in case of danger, or in the event of the necessity arising for the active employment of troops either for foreign or home service. As a general rule no one appreciates more fully than I do the value of maintaining in all countries a strong military reserve, but I have always been told that an organised native force of the character usually adopted is not necessary or desirable in India. It is not necessary, because recruiting is easy, and in six months all our battalions could be filled to 1,000 men each. It is not desirable, because there would always be a certain amount of danger in large bodies of drilled, though perhaps unarmed, men being scattered all over the country for the greater part of the year.

I offer no opinion on these two points: I am rather disposed in the present state of the country to doubt the soundness of the views expressed, but they are set forth and held by the highest military and civil authorities, and they appear to have met with general acceptance.

If an efficient and available reserve of the Indian army is considered desirable and safe, surely it ought to be recruited and maintained, not from among the weakest and least warlike races of the empire, but from those countries which give to us our best soldiers. Its composition should be similar to that adopted in most European countries, so that a man forming a part of the reserve should only cost one-fourth of a man actually serving with the colours. In the Madras Presidency the reverse is the case, for the Madras soldier costs more than those belonging to the other armies.

Extract from a Minute by the Commander-in-Chief in India (LORD SANDHURST) *on despatch No. 23 (Military), dated India Office, London, 27th January 1870.*

* * * * * * * * *

In the south there is no such necessity; there are no such conditions; there are no hostile frontiers; the territories are comparatively narrow; the intersection of railroads and other communications approaches an European standard; the population is generally peaceful and docile to a proverb; all anti-British combinations are forgotten, and matters of history only. In short, as shown by Sir Charles Trevelyan in his proposals, and latterly by Lord Napier, the time has come when the southern presidencies may considerably modify their military establishments.

What is seen in the Presidency of Bombay with regard to this? Although she may not have uttered written opinions like Madras, what is her practice, what are her wants? It is seen that Bombay utilizes the cavalry of her army in the Sind frontiers and among the semi-independent states in northern Guzerat and Rajpootana. There is no real use for more than one corps of cavalry in the proper territory of the Presidency.

So it is with Madras. If we except the duty of watching the Nizam, who after all is more careful of our wishes than almost any feudatory I could name, and who is observed by the Hyderabad contingent as well as by the large force at Secunderabad, it is difficult to discover what the duties of an army in the Presidency of Madras can be excepting those of parade.

It follows then that the expensive cavalry, for which there are no duties, and so far as we can see, no possibility of duty (the view evidently entertained by the Governors, Sir Charles Trevelyan and Lord Napier), should make way.

We have tried and wished that the expensive form of cavalry still existing in Madras should be changed for a more economical one, as was done with so much ease and success in Bombay in 1861-62. While promising to do this at some time or other, the Madras authorities have hitherto resisted the change, for reasons to me incomprehensible as being entirely without weight.

The obvious resource then is to get rid of the useless and expensive machine as we have recommended.

APPENDIX XXXVI.

Correspondence regarding the invaliding and pensioning of native soldiers.

No. 2837B., dated Simla, 16th November 1874.

From—Colonel P. S. LUMSDEN, Officiating Adjutant General in India,

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

I am directed by the Right Honourable the Commander-in-Chief to acknowledge the receipt of Military Department No. 722 of 14th October 1874,* forwarding for His Excellency's opinion a representation from the Government of Bombay on the necessity of a revision of the rules regarding the invaliding and pensioning of native soldiers.

* "Pensions."

2. The time seems to have arrived when the whole subject of the pay, invaliding, and pensioning of the native army must be revised by the State, as it is forced on military commanders by the increased cost of all the necessaries of life, the rise in the prices of all kinds of labour, and the greater demands made on the soldier than were required of him when his pay of Rs. 7 a month, with its accompanying batta, pension rules, and scale of clothing, were fixed.

3. That the matter can no longer be safely deferred, may be accepted from the fact that it has been urged by the Madras Government, and received consideration, inquiry, and support from that of Bombay.

4. Lord Napier of Magdala entirely coincides with the military authorities in Bombay as to the necessity of altering the terms of the native soldier's service.

5. The returns of the number of native soldiers' pensioned, as distinct from invalids, during the year 1873-74, as shewn in the returns which accompanied your letter under acknowledgment, amounted to—

Bengal	17
Madras	44
Bombay	4
Total	65

whereas the invalids during the same period amounted to—

Bengal	3,170
Madras	1,656
Bombay	1,800
Total	6,626

6. The Commander-in-Chief thinks that these figures, coupled with the alleged increased difficulty in recruiting, and the eagerness of the soldiers to be entered in the invalid rolls after fifteen years' service, are proofs that the system is radically defective, and that the present terms of service are unpopular.

7. Considering the precocity of Asiatic races, and their early arrival at mature age, the ruling that no soldier is to get a pension until after 40 years' service is, in His Excellency's opinion, nearly tantamount to decreeing no pension at all; and the procedure of confining pensions to invalids, instead of holding out an inducement for continued and faithful service, is highly injurious to the best interests of the service, and tends to maintain a system of constant and successful malingering.

8. Did the system of invaliding secure regimental efficiency, there might be some inducement to advocate its continuance; but so far from this being the case, it is a frequent source of discord between commanding and medical officers, especially with reference to the terms of "long service," clause C, paragraph 2725 of Bengal Army Regulations. At present so much is this the case, that had not His Excellency hoped to obtain a more radical cure for existing defects of system, he would have been induced to solicit Government to sanction the introduction of the military element into the personnel of invaliding medical committees, and to apply the principles advocated by Sir H. Fane, on the like difficulties presenting themselves in invaliding in the British army in India, which were met in G. O., Queen's Troops, 28th June 1838.*

* Copy enclosed.

9. Lord Napier of Magdala is convinced that a certain amount of extra expenditure is necessary to maintain the native army, and therefore His Excellency would recommend—

I.—That the recruit shall get a free kit after six months' service, Rs. 18 to be allowed to be drawn by the regiment on this account of enlistment, and the remainder on the recruit joining the ranks after passing his drill, instead of recruits having as at present to pay on an average some Rs. 36, to be deducted by instalments from a nominal pay of Rs. 7 a month.

II.—That an allowance of Rs. 4 per man a year be made to each regiment, instead of deductions as half-mounting being taken monthly from the sepoy's pay of Rs. 7.

III.—That good conduct pay be allowed at the following rates, instead of according to existing procedure:—

	Rs.
1st after three years	1 per month.
2nd after nine "	2 "
3rd after fifteen years	3 "

IV.—That according to the accompanying scale (A), subject to the requirements of the service, native officers, non-commissioned officers, and men be entitled to proceed to their homes and pass to a reserve.

V.—That this ruling be subject to the exigencies of the State, it being competent, in order to control the strength of the reserve, to suspend the application of the order for a stated period, or to limit the operation of it to a given extent in each battalion.

Thus, supposing this project to have been accepted, and the number of men seeking pension to be about equal to the number now invalided and pensioned, there would be on the averages of 1873-74, 3,345 per annum, or in round numbers, say 3,500, of which, allowing 1,500 or three-sevenths to meet the invaliding on account of wounds or disease contracted from service in a notoriously unhealthy district, together with the cost of proposed gratuities (hereafter referred to), there would be available 2,000 men for draft to the reserve among the three presidencies, which divided roughly amongst the 30 regiments of cavalry and 120 of infantry, and allowing for strength a proportion of three-fifths to the former for every one of the latter, would give about an average of thirteen pensions available annually in every regiment of infantry and nine every regiment of cavalry.

10. That all pensioners between the periods of 20 and 40 years' service be liable on all State emergencies to be called out. When so called out, they be usually employed in garrison duties to take the place of troops going on service.

11. That these pensioners be required to present themselves yearly to receive their pensions, and at that period, unless reported physically unfit, they be under arms for one month's annual training, for which period they should receive full pay of their respective ranks.

12. These pensioners to form a general reserve force, under the immediate command of experienced officers located at reserve depôts, which, perhaps (except in the cases of Goorkha and other hill soldiers), might conveniently be formed at the head-quarter stations of army commands.

13. A British field officer, on the half-staff company pay of a regiment, to be detailed to the command of each depôt, to be assisted by a second officer should the depôt exceed a strength of 800 men, with an extra field officer for every such 800 additional men.

14. With regard to invalid pensions for wounds sustained in action, existing procedure might be maintained. Cases of invaliding from the effects of disease contracted by service, or special cases stated by medical officers to be due to climate, might be met by declaring the climate of Assam as one in which if any troops foreign to it should be invalided, they should be entitled to existing invalid pensions; and a like ruling to be held good in the case of Punjab troops serving in Bengal Proper, or men from the south of Delhi at Peshawur or the Derajat.

15. In cases, however, of men breaking down before 20 years' service from ordinary causes, the system of gratuities, instead of pension, might, in His Excellency's opinion, advantageously be applied on the following scale :—

Under 5 years and over 3	...	...	...	...	...	...	3 months' pay.
From 5 „ to 10	...	...	...	...	...	...	6 „
„ 10 „ to 15	...	...	...	...	...	...	9 „
„ 15 „ to 20	...	...	...	...	...	...	1 year's pay.

16. Lord Napier of Magdala would take this opportunity, while submitting what appears to His Excellency radical requirements for the well-being of the native army, to urge upon Government the advisability of sanctioning colours and bands to all corps not already provided with them.

The feelings of the native soldiery associate with colours a veneration very much akin to that which leads soldiers of western nations to cherish insignia around which they have rallied in hours of danger and followed on the tide of victory.

It is well, His Excellency thinks, to nourish such feelings, and add every accessory incentive to increase *esprit de corps*. On the occasion of communicating to the 45th Native Infantry Her Majesty's most gracious permission to wear on their colours "Behar" and "Defence of Arrah," His Excellency received a most earnest appeal from the native officers and men for the grant of colours, without which, they point out, "there is nothing to show of these honours won, nor to tell of Her Majesty's gracious approval of the regiment's distinguished services."

17. The Commander-in-Chief is aware of the objections, on the score of expenditure, which may be raised to this project. I am, however, to point out that the immediate saving on the invaliding account would probably go a long way to meet the contemplated expenditure on the creation of so necessary a component as a reserve to the Indian army.

18. Lord Napier of Magdala has considered most carefully the possibility of making reductions in the native army, to meet any possible extra expenditure, but is convinced that the strength of the native army is at its minimum, with regard to the duties required of it in times of peace.

19. In the case of sudden and unforeseen war, there is no reserve, and the inadequacy of the existing strength was illustrated on the despatch of the comparatively small force detached from India for Abyssinia, which, in the opinion of the Governor General in Council, necessitated an immediate increase of six men to every troop of native cavalry and 10 to every company of native infantry even in this Presidency.

Again, at Umbeyla, where we had at command, and immediately available, the mass of the force disposed especially to meet such a demand, the check to our arms and the sudden call for large reinforcements caused so great a shock as to render necessary the movement of troops* from the very further extremities of the empire.

* From Bombay Presidency, Bengal and Oudh.

20. The Commander-in-Chief considers it most desirable that the sick in native infantry hospitals should not be left in all the varieties of Indian climate, to depend entirely on their own resources as to bedding, and submits that an allowance of blankets equal to 5 per cent. of strength be allowed to meet special cases of sickness.

21. Lord Napier of Magdala, in conclusion, would reiterate his opinion that experience has shown that the existing strength is the very minimum for the requirements of this country; that the creation of a reserve is a necessity; and that the improvement of the condition and prospects of the native soldier is of vital importance to the efficient maintenance of the native armies.

General Orders by Sir H. Fane, *dated 8th June 1858.*

The inefficient state of some of Her Majesty's regiments in Bengal, as compared with their numbers on paper, owing to the retention in the ranks of ineffective men, caused by the scruples of invaliding medical committees, has occupied the attention of the Commander-in-Chief.

His Excellency has communicated with the General Commanding-in-Chief, Her Majesty's Army, on the subject, and is now pleased to direct that the following instructions shall supersede in the East Indies all those of anterior date which may be at variance with them :—

(1). The regimental authorities (commanding officer and senior medical officer) are authorized to present to the consideration of invaliding committees the cases of all soldiers deemed by them no longer equal to their duties in India, with the view of ascertaining their actual state as to efficiency.

(2). Those men who appear permanently unequal to the general duties of soldiers, and are unequal to more than barrack or other minor duties, are not to be retained in India, nor are soldiers who, though not having any palpable medical defect, still may be deemed totally unequal to, and not likely to be able to resume their duties.

(3). As it not unfrequently happens that soldiers are brought forward for discharge for reasons not strictly medical, on which the invaliding medical officers do not agree with the regimental authorities, or consider that they have not sufficient grounds on which to decide the case in the manner the regimental authorities recommend, the following practice is to be followed in all such cases.

(4). A board is to be assembled (consisting of three field officers) by order of the general officer commanding the division in which the regiment was stationed, and all the cases in which the invaliding committee may not have agreed with the regimental authorities, are to be submitted to their consideration for a final decision.

(5). In each case a roll of the soldier, containing a certificate (see annexed form), signed by the commanding officer and the medical officer of the soldier's regiment, is to be laid before the board, in which certificate the nature of the disability under which the soldier may labour must be fully set forth, and it must be stated in what manner the disability may have arisen.

(6). The board must use the greatest caution and circumspection, so that the decision they may give shall be borne out and confirmed on a fair consideration of all the circumstances of the case, and bear the closest subsequent scrutiny.

(7). The regimental authorities must be most careful to guard against malingerers, and never bring forward a man whose case bears the smallest suspicion of having that tendency; and they and the committees to be constituted under this order must carefully keep in mind that men sent home who are not discharged after arrival in England become a burthen on their depôts, and there remain to the exclusion of recruits.

(8). The certificates ordered in the fifth paragraph are to be forwarded by each regiment to the head-quarters of their respective presidencies with the other invalid rolls, for the final orders of the Commander-in-Chief in each.

Roll of A. B. of Her Majesty's Regiment of who is deemed a fit subject to be brought before the Special Invaliding Committee of field officers assembled at on the day of ordered to be .

Name and number of the soldiers.	Troop or company.	Rank.	Present age.		Service in India.		Character.	Disease or reason for proposing his discharge.	Brief summary of previous medical treatment.	The decision of the Committee and grounds of the opinion formed.
			Years.	Months.	Years.	Months.				

G. H., *Commanding the Regiment.*

J. K., *Surgeon, Regiment.*

A. B., *President.*
C. D. } *Members.*
E. F }

A.

Scale of Proposed Pensions.

No estimate of the difference of cost between invaliding and pensioning can be given, as the pension list is with Government.

	After 20 years' service half full pension.			After 25 years' service 2-3rds full pension.			After 30 years' service 3-4ths full pension.			After 35 years' service 6-7ths full pension.			After 40 years' service full pension.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs	A.	P
Subadars, 1st class	25	0	0	33	5	4	37	8	0	42	13	8	50	0	0
„ 2nd „	22	8	0	30	0	0	33	12	0	38	10	6	45	0	0
„ 3rd „	20	0	0	26	10	8	30	0	0	34	4	6	40	0	0
Jemadars, 1st class	15	0	0	20	0	0	22	8	0	25	11	5	30	0	0
„ 2nd „	10	0	0	13	5	4	15	0	0	17	2	3	20	0	0
Havildars	7	0	0	9	5	4	10	8	0	12	0	0	14	0	0
Naicks	6	0	0	8	0	0	9	0	0	10	4	6	12	0	0
Sepoys, Drummers, and Buglers	3	8	0	4	10	8	5	4	0	6	0	0	7	0	0

P. S.—Probably but few men would go in the grade of Naik or Sepoy.

B.

Approximate cost of giving each recruit a free kit.

Number of recruits engaged during the years 1871, 1872, 1873—

3)11228

3742⅔ yearly average.
36

22452
11226

Rs. 1,34,712 annual cost of proposed measure.

C.

Approximate cost of doing away with half-mounting. Native non-commissioned officers, rank and file, on the 1st October 1874 :—

34,045
4

Rs. 1,36,180 cost.

D.

Approximate statement of probable increase to the charge for good-conduct pay in native infantry according to the proposal under consideration—Average taken from four regiments.

Corps.	At present.			Proposed (approximate).			Remarks.
	Number.	Per mensem.	Per year.	Number.	Per mensem.	Per year.	
		Rs.	Rs		Rs.	Rs.	
11th Native Infantry ...	204 @ 1 Rs.	204	2,448	267 @ 1 Rs.	267	3,204	
				75 @ 2 „	150	1,800	
	200 @ 2 „	400	4,800	117 @ 3 „	351	4,212	
Total ...	404	604	7,248	459	763	9,216	
21st Native Infantry ...	92 @ 1 Rs.	92	1,104	123 @ 1 Rs.	123	1,476	
				165 @ 2 „	330	3,960	
	220 @ 2 „	440	5,280	36 @ 3 „	108	1,296	
Total ...	312	532	6,384	324	561	6,732	
31st Native Infantry ...	132 @ 1 Rs.	132	1,584	273 @ 1 Rs.	273	3,276	
				95 @ 2 „	190	2,210	
	140 @ 2 „	280	3,360	27 @ 3 „	81	972	
Total ...	272	412	4,944	395	544	6,528	Rs. 7,392 proposed. „ 5,904 at present.
41st Native Infantry ...	100 @ 1 Rs.	100	1,200	267 @ 1 Rs.	267	3,204	
				135 @ 2 „	270	3,240	„ 1,488 per infantry regiment per annum.
	160 @ 2 „	320	3,840	18 @ 3 „	54	648	
Total ...	260	420	5,040	420	591	7,092	50
Grand total ...	1,248	1,968	26,616	1,598	2,464	29,568	Rs. 74,400, or 7,440*l.* per annum.
Average ...	312	492	5,904	399	616	7,392	

No. 1116 (Camp—Native Army), dated Fort William, 14th February 1876.

From—Major General P. S. Lumsden, C.B., C.S.I., Adjutant General in India,

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

In conformity with the instructions contained in Military Department docket No. 340 of the 8th February 1876, I am directed by the Commander-in-Chief to submit to the Government of India, the following remarks on the proposals contained in the report of the Special Pension Committee, of which Major-General D. M. Stewart, C.B., was President, dated camp Delhi, 28th January 1876.

2. Lord Napier of Magdala would accept the proposed scale of pensions and of gratuities for native soldiers on discharge, as set forth in Table A appended to the Proceedings. His Excellency would, however, desire the Government of India to consider whether, with these advantages conferred on the native army, the State should not hold a lien on the service of the soldiers when they may have passed from the active to the pension list.

3. It may be observed that it will remain with the Government to call for the services of these men as may be convenient, and that no extra cost will ensue to the State by the adoption of such measure, except on those occasions when the services of the pensioners may be utilized.

4. It is in the recollection of the Commander-in-Chief that on frequent occasions officers have remarked that when old pensioners of Government who did not join us in 1857, were interrogated as to their reasons for not coming forward to assist the State, their reply invariably was that they had never been required to do so, and His Excellency is not aware that the terms of their service imposed any such obligation on them.

5. It may not be necessary to call out a single man, but by calling them out occasionally, they would be reminded of their relations to Government. The Commander-in-Chief thinks, out of the 57,369 pensioners now on the rolls, most of whom appear to have been invalided after 15 years' service, a very great number might possibly be found to be equal for all ordinary work. With the pensioning of time-served men *not* invalids, there would be undoubtedly many soldiers very capable of rendering veteran service. But the Commander-in-Chief would not advocate the application of any such requisition to soldiers enlisting under other conditions.

6. His Excellency would desire to draw the attention of Government to the fact that, if increased pay is given to native officers, it is very desirable that the scheme (as sketched in paragraph 98 of

this office letter No. 1932B of 19th August 1874), for the creation of a fund from which bonus should be given to native officers on retirement, should receive full consideration.

7. Lord Napier of Magdala coincides with the committee in the advisability of establishing good service pensions to be granted to native officers of standing, for meritorious service during a career in which they may have proved their loyalty and continued gallantry.

8. The necessity for creating rewards of this nature has very forcibly been brought to notice in considering the demands for admission to the Order of British India, the very few vacancies in which having been found inadequate to meet the claims of the numerous distinguished native officers, whose services have been great, and have in many cases received but little acknowledgment.

9. With reference to the opinion of the Committee, as expressed in paragraph 14 of their report, that the power of summary discharge formerly held by commanding officers, under Article 3, Act V of 1861, should be restored to them, His Excellency is not now very anxious for the restoration of such power. But if the 3rd Article of 1861 is not restored, it should be considered tantamount to a rule that the utmost possible support should be given to the commanding officer, and if his sentence should indicate extraordinary severity or want of judgment, some other mode of disposal than the reversal of the sentence should be adopted. No man dismissed by his commanding officer should ever be sent back to a regiment.

Extract, paragraph 2, of a letter from BRIGADIER GENERAL R. C. STEWART, *Adjutant General, to the Secretary to Government, Fort St. George, Military Department, No. 346, dated 27th July 1876.*

* * * * * * * *

2. With reference to the views expressed upon the Committee Report by the Right Hon'ble Lord Napier of Magdala,* His Excellency fully concurs in the expediency of the State retaining a lien on the services of men claiming to retire on privileged pension while still effective. Such men in time of need might do good service in garrison.

* *Vide* Adjutant-General's (Simla) letter, No. 1116, dated 14th February 1876.

APPENDIX XXXVII.

Papers on reserves for the Native Army and its Pension system.

Telegram from the Secretary, Army Organization Commission, Simla, to all local Governments and Administrations, dated 9th September 1879.

How many reserve native soldiers could you employ in the police, in jail guards and other civil posts, on the understanding that they would be required for a month's training annually, but not necessarily all at the same time? Please telegraph reply.

No. 412, dated Simla, 9th September 1879.

From—The Secretary, Army Organization Commission,

To—The Secretary to the Government of the Punjab.

I am desired to request that, under the orders of His Honour the Lieutenant-Governor, you will be so good as to inform the Commission how many reserve native soldiers could be employed in the police, in jail guards and other civil posts, on the understanding that they would be required for a month's training annually, but not necessarily all at the same time.

Telegram dated 26th September 1879.

From—Bankipore, | To—Simla.
From—Bengal Secretary, Political and Judicial, | To—The Secretary, Army Commission.

Your telegram eleventh. Thirteen hundred reserve native soldiers can be employed in the police and as jail guards within six months from notice, on the understanding stated in your telegram. May Lieutenant-Governor expect letter giving details of proposed arrangement as summarized in your telegram? If so, he will defer full report; he has other recommendations to make in connection with the proposal. This number can be increased if additional police proposed in my letter on withdrawal of troops from Bengal as a reserve to be located at Bhagulpore, Moorshedabad, Dacca, be sanctioned: this additional force might all be reserve.

No. 4044, dated Lahore, 5th November 1879.

From—LEPEL GRIFFIN, ESQ., Secretary to Government, Punjab,

To—The Secretary, Army Organization Committee.

In reply to your letter of the 9th September, No. 412, asking how many reserve native soldiers can be employed in the police, in jail guards and other civil posts, on the understanding that they would be required for a month's training annually, though not necessarily all at the same time, I am directed to state that the Honourable the Lieutenant-Governor is unable to approve the employment of trained soldiers in the ranks of the police. This latter body is formed for the prevention and detection of crime, and the duties which belong to it are not those which can be ordinarily performed by men who have received their training in regiments. The original police force of this province

was mainly composed of old soldiers of disbanded corps, and was almost useless for police purposes. The police force of the Punjab is, however, an admirable recruiting ground for the army; and the Lieutenant-Governor is quite prepared to allow 20 per cent. of the force, which would be 3,000 men, to be enlisted as an army reserve, the men receiving Re. 1 extra from the Military Department, under an obligation to join the regular army on any emergency, and being liable to be called out each year for one month's training in the use of the Snider, and for military manœuvres. This, the Lieutenant-Governor believes, would cause no great inconvenience to the Police Department, and would furnish a very valuable reserve to the army.

2. Further, the whole police force, with the small military training which it now receives, may be considered available in times of emergency as an army reserve, having been accustomed to obedience and the use of arms.

3. The contingent jail guards of the province may be estimated at about 1,000, and of these the Inspector General, Prisons, is disposed to think that one-half, or 500, might be filled by men taken from the ranks of the army, though their withdrawal for the annual month's exercise should be notified some considerable time beforehand, and all should not be withdrawn at the same time.

Telegram dated Simla, 11th September 1879.

From—Naini Tal,	To—Simla.
From—The Secretary, Govt., N.-W. Provinces,	To—The Secretary, Army Commission.

Your telegram, employment of reserve native soldiers in police. None could be thus employed. Full reply by to-day's post.

No. 2545, dated Naini Tal, 12th September 1879.

From—C. ROBERTSON, ESQ., Secretary to Govt., North-Western Provinces and Oudh,

To—The President, Army Organization Commission, Simla.

With reference to your telegram, dated 9th instant, and in continuation of my telegram of yesterday's date, I am directed to state that the Lieutenant-Governor and Chief Commissioner strongly deprecates employing men of the army reserve in the way proposed, or the direction indicated, in your telegram.

2. In His Honour's opinion the army reserve men ought to be employed on duty from which they can easily be withdrawn when wanted for military duty, and not in posts from which they could not be withdrawn unless suitably replaced, and for which it would be impossible to find proper substitutes when they were most required elsewhere. This condition would not be satisfied, as far as these provinces are concerned, by their employment in the way proposed. Of the total number (5,426) of the armed police in these provinces, some are posted at police stations for ordinary duty, some are in the reserve for miscellaneous duties of escort, &c., and the following number are employed as guards at numerous points scattered all over the provinces:—

Jail and lock-up guards	1,228
Tahsils and treasuries guards	1,573

3. The police of these provinces have been subjected to repeated and extensive reductions, which were made, moreover, on the supposition that the strength of the troops and their location would remain pretty much as they are. Their numbers are now on the very lowest scale compatible with efficiency, and, indeed, are at present so weak, as to have difficulty in coping successfully with anything like organized crime.

4. The police reserves are numerically very weak, and the men are constantly on duty—escorting prisoners, treasure, &c., so that often there is not a man in the lines. They must be men with more or less of a civil training and fit for all the duty ordinarily required from the police, and they could not be spared for annual drill unless replaced by qualified substitutes.

5. His Honour would further observe that the experience of 1857, when the civil police often remained faithful though the army had mutinied, shows it would be a grand mistake to incorporate soldiers of the native army in the civil police. The civil authorities, if the armed and drilled police were withdrawn on the out break of war, would be deprived of the only men on whom they could rely to repress local disturbances, men whom they had known for years and in whom they could place confidence. The Inspector General of Police has also represented that if native soldiers are to be employed as guards on jails and treasuries, it will be necessary to have a separate body of armed police (thus adding to expense, for the heavy escort duty. It is only by long training and decided measures that he has got the present armed police (though they are not imbued with a native sepoy spirit) to work in accord with the jail department and the authorities they come in contact with when escorting treasure and prisoners by rail. The men must be long and carefully trained before they perform these duties satisfactorily.

6. On every ground, therefore, Sir George Couper would deprecate such a proposal as that referred by the Commission.

Telegram dated 15th September 1879.

From—Pachmarhi,	To—Simla.
From—The Secretary, Central Provinces,	To—The Secretary, Army Commission.

Your telegram of tenth. Number of reserve sepoys capable of employment in police depends entirely on conditions of service. We might use perhaps five hundred as jail and treasury guards, or double that number, if available, beyond their districts, as in Rampa disturbance; but they would be less useful to us than existing police.

Telegram dated 19th September 1879.

From—Poona, | To—Simla.
From—The Judicial Secretary, Govt., Bombay, | To—The Secretary, Army Commission.

Your telegram, ninth instant. This Government consider that if short service system be prescribed and recruiting for police were discontinued, and other steps necessary for giving effect to new policy, were adopted, the Bombay police and other civil departments could absorb 1,500 or perhaps even 2,000 reserve sepoys.

Telegram dated 20th September 1879.

From—Hyderabad, Deccan, | To—Simla.
From—The Resident, | To—The Secretary, Army Commission.

We could gradually employ reserve native soldiers up to maximum of 500 in police, jail guards, and other civil posts in Berar, but substitutes would be required for any of these men withdrawn for training. In the case of jail guards, substitutes could be furnished temporarily from Military Department. Commissioner and Judicial Commissioner strongly deprecate employment of reserve native soldiers in police, and I share their objections, except in special individual cases. The police and army should, we think, be kept quite distinct from each other.

Telegram dated 10th September 1879.

From—Mysore, | To—Simla.
From—The Secretary, Chief Commissioner, | To—The Secretary, Army Commission.

Your telegram, yesterday. In Native State of Mysore it will be impracticable to employ reserve soldiers, British army, in civil posts. All jail and most treasury guards are now furnished from the Mysore local military force. Recent attempts to transfer its members to the police for the same duties met with signal want of success owing to unpopularity of police service for Coorg, where their duties have been done by military. Leave has been asked to employ police; if sanctioned, no objection to employing reserve soldiers there, but numbers very inconsiderable, probably not exceeding fifty.

Telegram dated 11th September 1879.

From—Rangoon, | To—Simla.
From—Chief Commissioner, British Burma, | To—The Secretary, Army Commission.

Can you say what proportion of army reserve employed on civil guards would be liable to withdrawal at one and same time?

Telegram dated 22nd September 1879.

From—Simla, | To—Rangoon.
From—Secretary, Army Commission, | To—Chief Commissioner.

Yours 11th. For training, say 1-12th at a time, for service all.

Telegram dated 3rd October 1879.

From—Rangoon, | To—Simla.
From—Chief Commr., British Burma, | To—The Secretary, Army Commission.

Your telegram of ninth ultimo. About 900 reserve native soldiers could be employed, provided they were introduced gradually and were not called away for service during disturbances in Burma, otherwise not more than 200 could be absorbed.

No. 535-559G., dated Port Blair, 10th October 1879.

From—Lieut. General C. A. BARWELL, Chief Comr., and Supdt., Andaman and Nicobar Islands.

To—The Secretary to the Army Commission, Simla.

With reference to my telegram, which goes by the mail steamer to-day, for despatch to you from Rangoon, a copy of which is enclosed, I have the honour further to state, for the information of the Commission, that the number of police constables shewn in Form A attached to my letter No. 384-394G. of the 15th August last, *viz.*, 693, was fixed after very careful consideration, as the lowest number that could satisfactorily and safely carry on the police duties of these Settlements, on the removal of the greater portion of the native infantry, and I am strongly of opinion that this number is not susceptible of any reduction even for a short period.

2. The present number of constables is 383, which it is proposed to increase by 310, and there would be no objection whatever to 200 of these coming from the army reserve, provided that none of them should be liable to removal from Port Blair until replaced by a similar number of equally efficient men from India.

From—Port Blair, | To—Simla.
From—Supdt., Andaman and Nicobars, | To—Secretary, Army Commission.

Your telegram of 9th ultimo, received 5th instant.

If my proposals regarding the substitution of police for military are adopted, two hundred reserve native soldiers could be employed in the police, on the understanding that the total proposed strength of 693 constables is not reduced even for a short time. More by letter.

Nos. 427-429, dated Simla, 18th September 1879.

From—The Secretary, Army Organization Commission,

To—The Controllers of Military Accounts, Bengal, Madras and Bombay.

I am directed by the Army Organization Commission to beg that you will cause enquiries to be made from the Pension Paymasters under the following heads:—

(1) The number of native military pensioners in each district, or part of the country or circle, according as information may be quickly obtainable.
(2) The approximate numbers (*a*) under 40; (*b*) between 40 and 50; (*c*) over 50.
(3) The numbers which, from their personal observation, they think might be available for garrison duty.
(4) What numbers would be physically fit for field service?
(5) Whether any numbers might be induced to return to the colours *for a time* for field service or for garrison service?
(6) Whether full pay for the time would induce them? It may be noticed that on a small scale this was done during the late campaign. The pensioners of the Queen's Own Corps of Guides furnishing a company for the garrison of Hoti Murdan.

2. As the information is desired at the earliest possible date, I am to ask that the despatch of the reply may be expedited; but of course on the understanding that the information cannot be strictly accurate, but only, in all probability, an approximation.

No. 8039, dated Calcutta, 22nd September 1879.

From—Colonel T. B. HARRISON, Controller of Military Accounts, Bengal,

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

In reply to your letter No. 427, dated 18th September 1879, I have the honor to state that the information called for by the Army Organization Commission, regarding native military pensioners, cannot be furnished off-hand, or, except as regards questions one and two, from any particulars on record in the Military Account Department. The pension-paying officers are just about proceeding into the districts to pay the pensioners for the half year now closing, and if the Commission desire it, I will direct them to make the necessary enquiries as they proceed, and report the result to me when they return from their tours in January next.

2. As it is necessary that the instructions should be issued at once before the payments commence, I beg you will telegraph your reply to this.

No. 1640, dated Fort St. George, 3rd October 1879.

From—Colonel J. W. RIDEOUT, Controller of Military Accounts, Madras,

To—The Secretary, Army Organization Commission, Simla.

As requested in your letter No. 428 of 18th September 1879, I have called for statements containing the information relative to fitness of pensioners for further service; but as in this presidency pension payments are made, as a rule, by treasury officers at civil stations where the men reside, military officers being charged with the duty only where the number of resident pensioners is very large, some little time will probably elapse before the receipt of all the replies.

2. This office is in a position to give only the numbers in the several districts.

No. 1718, dated Fort St. George, 10th October 1879.

From—Colonel J. W. RIDEOUT, Controller of Military Accounts, Madras,

To—The Secretary, Army Organization Commission, Simla.

In accordance with the request in your telegram as per margin, I have the honor to forward copy of a statement, received from the Superintendent of Pensions, Madras, shewing the number of native military pensioners attached to each station, &c., on the 30th June 1879.

Dated 9th October 1879.
"Yours October third Please give numbers of pensioners in the several districts."

2. I hope to be able to submit the detailed statement called for in your No. 428 of 18th ultimo, within a week or ten days, when it is expected the whole of the replies from the districts will be in.

Statement shewing the number of Military Pensioners attached to each of the under-mentioned stations, &c., as they stood on the list on the 30th June 1879.

Stations, &c.	Subadars.	Jemadars.	Havildars.	Naicks and Farriers	Trumpeters and Drummers.	Privates and Gun Lascars.	Puckallies.	Total.	Grand Total.
Arcot	15	4	43	29	5	301	...	397	
Arnee	6	2	32	47	1	240	2	330	
Chittoor	10	4	23	14	...	135	...	186	
Vellore	84	35	233	187	46	1,111	6	1,702	
	115	45	331	277	52	1,787	8	...	2,615
Cuddalore District	4	5	57	57	7	274	3	...	407
Bellary	11	1	30	22	9	187	4	264	
Do. Collector	...	...	...	2	...	13	...	15	
	11	1	30	24	9	200	4	...	279
Mangalore	2	...	6	3	...	23	2	36	
34th Regiment N.I., Mangalore..	2	...	1	1	2	22	...	28	
	4	...	7	4	2	45	2	...	64
Chingleput District ...	15	5	63	50	15	307	5	460	
Mount	10	11	46	28	3	277	5	380	
	25	16	109	78	18	584	10	...	840
Madras	47	18	124	86	74	707	7	...	1,063
Coimbatore	2	3	11	7	10	52	2	..	87
Cuddapah	5	3	7	5	1	65	..	...	86
Berhampore ...	10	3	31	25	4	260	2	335	
Chicacole	25	8	91	70	...	908	...	1,102	
Ganjam District	...	...	1	...	...	7	...	8	
7th Regiment N.I., Berhampore	...	...	1	1	.	4	...	6	
	35	11	124	96	4	1,179	2	...	1,451
Ellore	39	13	116	90	5	587	4	854	
Godavery District	1	1	7	4	1	29	...	43	
Rajamundry	16	5	92	77	3	633	1	827	
Samulcottah	4	3	27	27	2	273	2	338	
	60	22	242	198	11	1,522	7	...	2,062
Condapilly	10	1	38	26	...	135	...	210	
Guntoor	3	5	30	24	2	201	2	267	
Masulipatam	15	7	106	88	...	635	4	855	
Kistna District	...	...	1	...	...	2	...	3	
	28	13	175	138	2	973	6	...	1,335
Cumbum	...	1	8	2	...	45	...	56	
Kurnool	...	1	1	5	...	25	...	32	
	...	2	9	7	...	70	...	...	88
Madura District	17	8	52	61	1	357	6	...	502
Malabar do.	5	2	20	11	6	82	5	...	131
Quilon	...	..	3	3	2	33	...	41	
26th Regiment N.I., Quilon ...	...	...	2	1	..	10	..	13	
Trichoor ...	1	..	7	4	...	45	1	58	
Trevandrum	1	...	1	2	1	16	...	21	
	2	...	13	10	3	104	1	...	133
Nellore District	5	4	26	22	4	224	...	...	285

Statement shewing the number of Military Pensioners attached to each of the under-mentioned Stations, &c., as they stood on the list on the 30th June 1879—(continued).

Stations, &c.	Subadars.	Jemadars	Havildars.	Naicks and Farriers	Trumpeters and Drummers.	Privates and Gun Lascars	Puckallies.	Total.	Grand Total.
Salem do.	16	3	48	44	3	309	1	..	424
Tanjore do:	18	11	117	92	1	560	5	...	804
Tinnevelly do.	5	10	48	29	2	289	3	...	386
Trichinopoly	44	14	145	103	16	794	15	1,131	
Do. Collector ...	...	...	..	...	...	3	...	3	
	44	14	145	103	16	797	15	...	1,134
Vizagapatam	16	3	94	86	11	1,380	9	1,599	
Do. Collector ...	...	.	1	.	...	11	...	12	
Vizianagram	10	3	48	46	5	566	2	680	
Palcondah	1	1	10	9	1	174	2	198	
	27	7	153	141	17	2,131	13	...	2,489
Bangalore	33	11	108	78	38	579	13	860	
Do. District... ...	6	4	15	12	...	87	1	125	
Chitaldroog do.	...	...	3	3	1	9	...	16	
Kolar do.	9	3	24	22	...	125	...	183	
Kadur do.	..	...	2	...	3	...	...	5	
Hassan do.	2	1	1	3	..	17	...	24	
Shimoga do.	...	...	...	2	1	16	...	19	
Tumkur do.	...	...	3	9	...	85	...	97	
Mysore do.	2	4	13	11	2	56	...	88	
Mercara	3	2	15	4	4	67	1	96	
French Rocks	6	1	8	12	3	83	2	115	
Sappers and Miners ...	...	...	...	...	1	...	...	1	
	61	26	192	156	53	1,124	17	...	1,629
Ootacamund	...	...	...	1	3	12	.	...	16
Secunderabad	58	18	163	92	35	694	12	1,072	
Ellichpur	...	...	1	1	...	1	...	3	
Jalna	...	...	2	2	...	8	...	12	
1st Regiment L.C., Secunderabad	1	...	1	1	1	4	...	8	
20th Do N.I. do. ...	...	1	11	3	...	46	...	61	
38th Do. N.I. do. ...	...	..	1	...	...	2	.	3	
	59	19	179	99	36	755	12	....	1,159
Kamptee	29	9	47	42	19	226	7	379	
2nd Regiment L.C., Kamptee ...	...	...	...	1	...	4	1	6	
2nd Do. N.I. do. ...	1	...	2	2	2	20	2	29	
Raipur	5	2	14	5	1	58	...	85	
16th Regiment N.I., Raipur ...	1	...	8	2	1	29	1	42	
Hoshungabad	...	3	6	4	2	37	...	52	
Seetabuldee	6	1	24	12	12	69	...	124	
Seroncha	...	...	2	1	..	8	...	11	
	42	15	103	69	37	451	11	...	728
Saugor	1	2	13	4	1	36	2	59	
Jubbulpore	6	3	15	9	2	54	1	90	
3rd Regiment L.C., Saugor	1	1	4	2	...	6	1	15	
13 Do. N. I., Jubbulpore	...	...	1	...	...	4	...	5	
	8	6	33	15	3	100	4	...	169
Rangoon	...	...	1	...	...	3	...	4	
Moulmein	...	...	3	...	1	10	...	14	
Tounghoo ...	..	...	3	...	...	...	...	3	
Thayetmyo	...	...	...	...	...	2	...	2	
	...	...	7	...	1	15	...	...	23

Statement showing the number of Military Pensioners attached to each of the under-mentioned Stations, &c., as they stood on the list on the 30th June 1879—(concluded.)

Stations, &c.	Subadars.	Jemadars.	Havildars.	Naicks and Farriers	Trumpeters and Drummers.	Privates and Gun Lascars	Puckallies.	Total.	Grand Total.
Cuttack	4	3	28	20	5	133	2	195	
11th Regiment N.I., Dorunda ...	3	2	19	2	3	45	1	75	
12th Do. N.I., Cuttack ...	3	4	5	2	...	14	..	28	
35th Do. N.I., Banda ...	2	2	6	5	1	34	...	50	
	12	11	58	29	9	226	3	...	348
Grand Total ...	...	...	...	...	...	...	...	...	20,737

J. W. C. HENDERSON, *Major,*

Acting Superintendent of Pensions.

Fort St. George, Pension Office;

29th September 1879.

Number of Guards supplied in each District, and Strength.

Districts.	Jail Guards.				Treasury Guards.				Court Guards			Military Commissariat Guards.			Bank Guards.			Telegraph Stores			Medical Stores.			Merchants, Magazines			Water Cistern			Remarks.
	No of Guards	Head Constables.	Constables	Total.	No. of Guards.	Head Constables	Constables.	Total.	Head Constables.	Constables.	Total.	Head Constables	Constables	Total.	Head Constables.	Constables	Total	Head Constables.	Constables.	Total.	Head Constables	Constables.	Total	Head Constables.	Constables.	Total.	Head Constables.	Constables.	Total.	
Ganjam	2	4	29	33	4	5	31	36	...	3	3	...	...	...															At district head-quarters there is one Treasury Guard of two Head Constables and 12 Constables, usually relieved once a week. The other treasuries are, in taluqs at tehsildars, head-quarters, the usual strength of guard being 4 men; but it varies considerably.
Vizagapatam	1	5	30	35	13	14	56	70	...	3	3	...	...	..															
Godavery	2	9	94	103	10	10	69	79	...	3	3	...	...	...															
Kistna	2	5	34	39	12	13	79	92	...	3	3	..	..	...															
Nellore	1	6	37	43	10	11	67	78	...	3	3	...	..	..															
Kurnool	1	3	18	21	9	10	61	71	...	3	3	..	...	..															
Bellary	1	4	53	57	17	16	93	109	...	3	3	.	...	..															
Cuddapah	1	4	21	25	12	13	79	92	...	3	3	...	...	...															
North Arcat	3	21	152	173	10	11	67	78	...	3	3	.	...	...															
Chingleput	2	5	33	38	7	8	49	57	...	3	3	...		...															
South Arcot	2	12	81	93	9	10	61	71	...	3	3	...	.	...															The whole of these guards are relieved once a week, except in Madras City, where the relief is once a month, each man being allowed to sleep at home once in four days.
Tanjore	2	4	27	31	12	13	80	93	...	3	3	..	...																
Trichinopoly	3	20	125	145	6	7	43	50	...	3	3		..																
Madura	1	6	44	50	7	7	40	47	..	3	3	..	..	..															
Tinnevelly	1	5	30	35	10	11	67	78	...	3	3	.	...	...															
Salem .. .	1	5	59	64	10	11	65	76	...	3	3	..	...	...															
Coimbatore	3	19	125	144	12	14	85	99	...	3	3	1	4	5															
Malabar	5	18	133	151	13	14	86	100	...	3	3	1	2	3															
South Canara	1	2	13	15	6	7	43	50	...	3	3	...	...	..															
Madras Town	1	6	50	66	...	1	6	7	...	...	...	.	...	..	3	20	23	1	4	5	1	4	5	1	4	5		3	4	
Total ...	36	163	1,188	1,351	189	206	1,227	1,433	...	57	57	2	6	8	3	20	23	1	4	5	1	4	5	1	4	5	1	3	4	

Chief Office of the Inspector General of Police;
Madras, 3rd October 1879.

T. K. GUTHRIE, *Major,*
Acting Asst. Inspector General of Police.

No. 2688, dated Ootacamund, 17th October 1879.

From—C. G. MASTER, Esq, Acting Chief Secretary to the Government of Madras,
To—The Secretary, Army Commission, Simla.

I am directed, with reference to your marginal* telegram of the 9th September last, to forward a statement drawn up by the Inspector General of Police, which shows the average number of police employed on jail and civil gurads to be 2,891 men. There are altogether 251† guards, and omitting the Court guards, which should certainly be retained by the police, there remain 232 guards not in their nature absolutely unfit for the employment of reserve native soldiers. The police force now assigned for this duty are supposed to have 1 night in 5 in bed, and if sepoys be allowed 1 in 3, there would be required at least 5,000 soldiers to take these Police duties.

* "How many reserve native soldiers could you employ in the police, in jail guards and other civil posts, on the understanding that they would be required for a month's training annually, but not necessarily all at the same time; please telegraph reply."

† 36 Jail guards.
189 Treasury do.
19 Court do.
7 Miscellaneous.
251

2. These guards are very widely scattered, as every taluk kusbah has a Treasury guard, and it would seem to be a serious question for the Military Department how, in such circumstances, sepoys on a "Reserve" footing could be collected for the annual training, and how discipline could be maintained at other times when widely dispersed throughout the country and away from all control or even surveillance of military authorities.

3. But a far more difficult problem is how to replace them when periodically withdrawn for training, or if called out for service. Probably, the idea is that the police force should be reduced proportionately to the sepoy reserve employed, but it is difficult to see how this would be possible in face of the contingency of having to replace the sepoys by police *certainly* for one month in every twelve, and *possibly* for longer periods on emergency. How, again, could efficient discipline be maintained in a station wherein some men were under police regulation and discipline, while others were under a different engagement and condition of service.

4. His Grace the Governor in Council is therefore unable to say that such duties could be economically taken by reserve sepoys and discipline and efficiency maintained amongst soldiers widely scattered, not serving under their own officers and liable to be recalled to their colors at the very times when police duties and efficiency would become more especially important and heavy. In such an emergency, to place jails, for instance, in the hands of raw police recruits enlisted *pro tem* would be exceedingly hazardous.

5. But on general considerations of State policy it appears to His Grace in Council that besides the minor difficulties indicated above, it is politically most inexpedient, and would be highly dangerous, to employ the same body of men on civil as well as on military duties. At present little sympathy exists between the police and the sepoy army; they are not influenced by the same considerations; but once sepoys are employed in the various civil departments of the Administration any discontent or disaffection among the military would necessarily spread throughout the whole province, and Government would then be wholly dependent on its European Army for the maintenance of order or the suppression of revolt.

6. There is no analogy between a reserve thus formed in this country and a measure of the same kind in Europe, where the Government, the soldiers and the people form one population. Even in Europe, moreover, soldiers and police are, for political reasons, kept distinct.

7. The Government of Madras are, I am to say, most decidedly of opinion that the suggestion made in your telegram under reply is dangerous to future peace and security of the presidency and those of the Empire.

8. The following telegram has this day been despatched to your address:—

"Your telegram, 9th September, about employment of reserve native soldiers. This Government are entirely opposed to the measure. Letter follows with particulars."

Average number of Police employed on Jail and Civil Guards.

Districts.	Police Force.		
	Head Constables	Constables.	Total.
Ganjam	9	63	72
Vizagapatam	19	89	108
Godavery	19	166	185
Kistna	18	116	134
Nellore	17	107	124
Kurnool	13	82	95
Bellary	20	149	169
Cuddapah	17	103	120
North Arcot	32	222	254
Chingleput	13	85	98
South Arcot	22	145	167
Tanjore	17	110	127
Trichinopoly	27	171	198
Madura	13	87	100
Tinnevelly	16	100	116
Salem	16	127	143
Coimbatore	34	217	251
Malabar	33	224	257
South Canara	9	59	68
Madras Town	14	91	105
Total	378	2,513	2,891

Office of Insp. Genl. of Police;
Madras, 3rd October 1879.

T. K. GUTHRIE, *Major,*
Acting Asst. Inspector General of Police.

No. 2039, dated Fort St. George, 7th November 1879.

From—Colonel J. W. RIDEOUT, Controller of Military Accounts, Madras,

To—The Secretary, Army Organization Commission, Simla.

With reference to your letter as per margin, I have the honour to subjoin a statement affording the particulars sought. The delay in its submission was caused by the numerous pension-paying officers who had to be communicated with for the particulars required.

No. 428, dated 18th September 1879, seeking information on certain heads relative to the pensioners in this presidency.

STATEMENT.

(1)	Number of Native Military Pensioners	21,201
(2)	„ under 40	1,676
	„ between 40 and 50	5,599
	„ over 50	13,926
(3)	„ fit for Garrison duty	5,761
(4)	„ Field Service	1,876
(5)	„ which might be induced to return to colors for a time for Garrison duty	5,800
	„ for Field Service	1,876

(6) Full pay alone would induce the above to volunteer for Garrison duty or Field Service.

No. 3484, dated Poona, 2nd October 1879.

From—The Controller of Military Accounts, Bombay,

To—The Secretary, Army Organization Commission, Simla.

I have the honour to attach an approximately correct reply to your letter No. 429, dated 18th ultimo. The return has been framed on the best information I can obtain, and it is believed that about three-fourths of the men, shewn as fit for duty, would return to the colors if offered full pay.

Approximate Statement of Native Military Pensioners in the Bombay Presidency.

PENSION CIRCLE.	Total number of military combatant pensioners.	NUMBER			Number considered fit for garrison duty.	Number considered fit for field service.	REMARKS.
		Under 40 years of age.	Between 40 and 50 years of age.	Over 50 years of age.			
Presidency Circle ...	1,263	77	595	591	500	80	
Poona „ ...	2,622	151	683	1,788	1,140	280	
Dapoli „ ...	7,237	440	2,904	3,893	1,800	700	
TOTAL ...	11,122	668	4,182	6,272	3,440	1,060	

Memoranda on the Police as a Reserve Force.

I.

Relief to Army expenditure that might be afforded by the police.—I suppose that one of the propositions of the new Army Commission will be to engage native soldiers for fixed periods, allowing, in the case of a proportion of them, a short service with the colors and a further service in the reserve.

It has struck me that the cost of the reserve may be very much reduced by an arrangement being made to draft a certain number into the police throughout India.

It must be remembered that when the Indian army was so greatly reduced in 1860, a considerable portion of this reduction was deemed feasible and safe by reason of the introduction of an organized constabulary upon the basis of the Royal Irish and English constabulary bodies. The Police Comission, in speaking of the training and discipline of the new force, said—

"5. The force should be so trained and constituted that it may be thoroughly relied upon for the performance of all duties of a preventive and detective police, and for the protection of property and maintenance of local peace and order, with reference to the locality in which it is to be employed. That the formation of such a force is the key to economy and military efficiency."

"The police should be thoroughly trained in the use of their arms, as well as other branches of drill exercise"

Again, in paragraph 53—I recall these passages to show that wherever the original intentions of the Police Commission have been fulfilled, the police are a suitable body in which to employ our reserve soldiers.

I do not think the police could take more than 15 per cent. of their own strength from the reserve men, for two reasons:—1*st*, the nature of police duties prevents the useful employment of a larger number of military men; and 2*nd*, a larger number would cripple the police when the reserves are called out, by leaving more vacancies than we could fill.

The 15 per cent. would give about 15,000* men all over India. They would be gradually taken into the police as vacancies occurred. It would be well to make the absorption gradual, so that there

* The figures for 1876-77 are 155,000 officers and men. This would allow of a reserve in the police of 23,250 men. As a safe estimate take 20,000 men.

might be a constant flow of newly-trained men who could act as drill instructors for the others, and that, when the reserves were called out, they might not all consist of old or oldish men.

When the reserves were called out only 5 per cent. should be withdrawn immediately. After three months' notice, another 5 per cent., and after three more, the remainder. This would spread the police enlistments, in lieu of the reserve men, over six months. In my subsequent paper I have shown how, in any national danger, the whole reserve might be given at once.

Whilst the reserve men were in the police, the police should pay them at least Rs. 7 a month, and the Military Department a retaining fee of one rupee a month, or Rs. 8 per man in all. The one rupee per man might be payable to the local Government on satisfactory report by a military inspector, that the men were fairly trained and efficient. Where there are military deputy inspectors general of police, their reports might be accepted, and in other provinces the divisional staff could perhaps inspect.

If a man of the reserve were dismissed from the police a copy of the case should be sent to the military divisional head-quarters concerned, and it would rest with the general or other officer to draft the man into another part of the reserve or dismiss him altogether.

The police have scarcely any punishment but dismissal for breaches of discipline, as they have to prosecute before Magistrates in order to get sentences of imprisonment (the maximum term being three months). It is nearly useless to prosecute for breaches of discipline before native Magistrates.

Special pension arrangements would be necessary for men in the reserve. The ordinary sepoy would not come to the police for a police pension, unless he were an educated man and expected promotion. It would suffice to give a minimum pension of Rs. 4 a month after 20 years' service. Supposing that men come to police between their third and fifth years, the Military Department might pay one rupee and the local Government three of these pensions.

Men should not come to the police who have served five years and over. The work will then be irksome to them.

On the reduction of the army after war, we could probably take in the reserve men again at the rate of from 6 to 7 per cent. on police strength per annum. If my scheme of chaukidar substitutes is accepted, we could take them back at once.

Reserve men should *volunteer* for the police; be men of good character and elect a police division, not a police district. It does not answer to have too many men belonging to a district in its police.

A similar plan might be adopted in the Postal Department and for the process-serving establishments. But in this case budget provision should be made for say 14 days' drill and training in the year. In the post office substitutes would be needed; but in the case of process-servers the time might be chosen when the courts are closed.

A great saving might be made in the cost of depôts and the enlisting of recruits in war time, by attaching depôts to police district reserves. Major Menzies suggested this last year, and I am certain it is feasible. Let a small allowance be given to the police officers for charge of the depôt and for each approved recruit enlisted. No officer can know better where to go for recruits of a particular caste or class than the police officer.

This arrangement might be confined to districts where there might be a military district superintendent to supervise, or a military deputy inspector general to control, the depôt and enlistments.

I put this matter briefly as a suggestion for consideration.

E. NEWBERY, *Major*,

24*th July* 1879. *Persl. Asstt. to Inspr. Genl. of Police, Punjab.*

II.

A reserve of Officers.—A reserve of officers seems as necessary and would be as valuable as a reserve of sepoys. It would be possible, with great benefit to the police in India, to arrange for a small reserve of say from 60 to 70 *young* officers.

I take the Punjab by way of illustration. We could take in six military officers as a reserve on these terms. Such officers to get Rs. 300 a month each from the police and Rs. 100 a month each from the Military Department so long as they belonged to the reserve. I suggest that they should only belong to the reserve until they were promoted either to captain or district superintendent of police. When either of these events took place, they should become permanent in the police. As such promotions took effect, we should obtain fresh officers in order that our number for the reserve might remain always six. Thus the reserve would always consist of young officers who know their drill and the latest improvements in military practice.

It is possible that in other Indian provinces than the Punjab and Madras, some extra inducements would be necessary to attract military officers to the police. The system of having police deputy inspectors general not only secures police efficiency and co-operation against organized crime (which is impossible where each district is a separate unit and promotion is given merely in districts for district success), but it provides positions suited to officers who have thoroughly qualified themselves in police work and who look for a reasonable amount of promotion. No man of any ability is content to be a subordinate all his life, and provinces which provide no higher position for police officers than that of district superintendent (or police assistant to the Magistrate) can scarcely expect to command much talent. The police would be great gainers from a recognition of this fact. Few uncovenanted officers have the training and mental habit to command and keep in good discipline the large bodies of men we have in our important districts. In troublous times this is a serious military consideration.

E. NEWBERY, *Major*,

18*th September* 1879. *Persl. Asstt. to Inspr. Genl of Police, Punjab.*

III.

1. *Army reserves in the Police.*—In the following paper I give the details for working out my scheme of employing reserve soldiers in the police so far as the Punjab is concerned. The plan of

training policemen to act as reserve soldiers on emergency would be very expensive, as we could spare but few men at a time for training, and it would be impossible to make them efficient in the short time we could allow them to be away or at drill. Besides these two difficulties there is a third,—police recruits of late years have fallen off owing partly to the superior attractions of the army and partly to the greater proportion of uncovenanted officers in the police. Uncovenanted officers do not know how strict regiments are as to the classes which should and should not be enlisted, and in the police the matter is not so important as in the army. But if the reserve is to be a real reserve on which we may fairly depend, it must be composed not only of qualified persons but of persons taken from the fighting classes of the people.

2. *Considerations limiting the number of reserve soldiers we can employ.*—In regard to the number of soldiers we could take into the police (instead of ordinary recruits) to compose the reserve, after full consideration of the subject, I do not think we can safely employ more than 15 per cent. on our total strength of police (provincial and municipal). From a military point of view, the more soldiers we can employ the larger will be the reserve. From a police point of view, the number must be limited with reference to the following considerations:—

(*a*) *Duties on which we could employ them.*—We do not need a larger number than that which I have proposed for our *quasi-military* duties, such as jail and treasure guards, escorts over treasure and prisoners, personal guards, and for routine patrolling duties where good discipline may be especially desirable.

(*b*) *A separate military class in the police to be avoided and fusion ensured.*—The numbers must not be sufficiently large to form a military party in the police. If care is taken in dividing men from the same regiment and in the equal treatment of all policemen, I do not think any danger is to be apprehended from the number I propose. We had a far larger military element when we commenced the new police system in 1861, and so far as discipline is concerned this leaven of trained men was most useful to us.

(*c*) *The vacancies caused by calling out reserves must not be more than we can fill.*—When war breaks out and the reserves are called out, there is always a large demand for men of the same class as that which we enlist in the police, to supply cartmen, camel and mule drivers, kahars, &c., &c. Large wages are commonly given to such persons. It is obvious that we must not have larger numbers of reserve men in the police than we can obtain substitutes for, especially as an immense amount of additional labour devolves upon the police at such a time.

(*d*) *Proposed method of filling most of the vacancies.*—As there will be such competition for recruits all over the country, it follows that police recruiting will be very difficult. I do not think it would be possible to supply the vacancies in our ranks in the ordinary way. But my proposition is to withdraw, as far as may safely be done, regard being had to the position and circumstances of particular districts, up to one-half of the regular police at rural stations and posts to supply the place of the reserve men, and that the rural police withdrawn should be replaced by selected village chaukidars. Power should be taken to draft village chaukidars, temporarily, to the organized police; and whilst they served in it, they would occupy precisely the same position, as regards pay and other privileges, as the men whose places they filled. On the return of the reserves, the heads of villages should be bound to reinstate these chaukidars. Section 21 of Act V of 1861 renders legislation necessary as regards this matter.

3. *Table showing strength of reserve, &c.*—In the accompanying table I show the way in which my scheme would work, and the number of reserve men I could give, provided, of course, that municipalities do not revert to the system of village watchmen, and that the provincial police are kept at their present strength.

4. *Considerations limiting employment of chaukidars.*—In column 7 of the table above alluded to, I have given the maximum number of chaukidars we could, on a great emergency, employ, but I do not intend that the maximum should, under any ordinary circumstances, be reached. It must be remembered that in many Punjab districts there are no troops, and that in a serious war other districts might be deprived of their ordinary garrisons, so that the organized police would be the only disciplined body available in event of any local disturbances. These are always possibilities in every part of India. It is especially in those districts in which the figures given in column 7 exceed those mentioned in column 6, that great caution would be needed in approaching the maximum. Only in the presence of some great need, and at a time when the districts were in a thoroughly satisfactory state, would it be justifiable to work up to the maximum. It will be observed that my proposed percentage of reserve men does not approach the maximum in any of these districts. In the larger districts we should get as many ordinary recruits as we could to lessen the call on the village watchmen and also to supply the places of men of our reserves who might die or be killed in action in the campaign.

5. *Conditions of service.*—I suppose that reserve men in the police would get at least one rupee a month from the Military Department in addition to their police pay; that special pension arrangements will be made allowing such men army rates; and that uniform will be kept in store, so that complete equipments could be served out to them immediately they were called out. They would have to leave their police uniform in their districts for their substitutes. There should be a scale of carriage allowed to reserve men proceeding to the mobilizing centre.

6. *Calling out of reserves.*—As police work is very heavy when war commences, it would dislocate our arrangements to call out the reserves in the police at once. I suggest 5 per cent. being called out immediately on war being declared; 5 per cent. after three months; and 5 per cent. after another three months. At the same time, in face of any great national danger, my plan of chaukidar substitutes would enable us to give the whole reserve at once. In such a case, we must be prepared to run risks.

7. *Cannot supply mounted reserves.*—We cannot furnish any mounted reserves, as our strength of mounted men is very small indeed.

8. *Reserve men must come to us when young.*—Native soldiers who join the reserve in the police must not have more than five years' service. Police duties are far heavier than those taken by the army in time of peace, and regular nights in bed are very few and far between. The change would be

most distasteful to old soldiers, and, moreover, they would not be at an age when it is easy to learn. We do not, purposely, draw a hard-and-fast line between men who are to do military police and civil police duties, as such a line is wasteful and unwise. Consequently, all the reserve men would learn police work, and would be employed according to their qualifications and the exigencies of the service.

9. *A month's training in the year quite impossible.*—It would be perfectly impossible to call out the reserves in the police for a month's training under any practicable arrangements. In a few of the larger stations we might have 30 or 40 of the reserve men together for a few days at a time, but duty is so constant that a morning drill would be all they could be spared for. The men would, of necessity, be so scattered that it would be quite impracticable to assemble all the reserve men in any one district, at the head-quarters of that district, without the greatest inconvenience and without providing substitutes, who, of course, must be paid. In the winter months, when guard duty is very heavy, our reserves are empty, and in the summer, sickness and leave reduce our working strength. It would be enormously expensive to attempt any annual training of the reserves in the police, and I believe any attempt of this kind would result in failure.

10. *Well-trained men only to be sent to reserve.*—The only satisfactory plan is to send thoroughly trained soldiers into the reserves, and trust to the little drill and discipline we can give them to keep up their knowledge. If a gradual stream of native soldiers, say 2 per cent. of our police strength, is supplied to us annually, there will be a fair proportion of young soldiers when the reserves are called out, and we can use the new arrivals, as leisure and means are available, to teach the older hands.

11. *Reasons why military training in the police is impossible.*—Military training is now almost a science. A recruit takes some nine months in learning drill, the use of his arms (including judging distance, &c.), outpost duty, shelter-trench drill, signalling, and so forth. It would be illusory to attempt to teach these things to a hard-worked policeman. The expense of supplying targets, apparatus, ranges, and competent instructors at all our stations would be very great, and, unless substitutes were paid for, the process would be a very long one, as our instruction squads would be mere driblets of the total number of reserve men in the particular district.

E. NEWBERY, *Major*,
Persl. Asstt. to Inspr. Genl. of Police, Punjab.

Table showing strength of Police and possible Reserve.

1	2	3	4	5	6	7	8
District.	Strength of Imperial Police.	Strength of Municipal Police.	Total.	Police on rural duty.*	Reserve @ 15 per cent. on total (column 4)	Number of Chaukidars we could employ.	Remarks.
Delhi	558	491	1,049	255	156	127	*Numbers sanctioned, less tehsil guards.
Gurgaon	371	124	495	213	73	106	
Karnal	463	156	619	238	91	119	
Hissar	400	147	547	202	81	101	
Rohtak	395	68	463	188	69	94	
Sirsa	322	50	372	135	55	67	
Umballa	914	102	1,016	366	151	183	
Ludhiana	451	101	552	229	82	114	
Simla	120	51	171	†32	25	16	†Actuals.
Ferozepur	416	75	491	223	73	111	
Jallandhar... ...	388	100	488	162	72	81	
Hushiarpur ...	406	100	506	220	75	110	
Kangra	383	23	406	224	60	112	
Amritsar	421	496	917	169	136	84	
Gurdaspur... ...	444	143	587	243	87	121	
Lahore	869	433	1,302	‡350	195	175	‡Approximate return is incorrect.
Multan	646	182	828	333	123	166	
Jhang	428	65	493	238	73	119	
Montgomery ...	485	11	496	284	73	142	
Mozuffargarh ...	334	45	379	194	55	147	
Sialkot	399	96	495	208	73	104	
Gujranwala ...	410	100	510	204	76	102	
Rawalpindi ...	807	152	959	438	142	219	
Jhelum	423	104	527	§200	78	100	§Allowing for P. D. Khan.
Gujrat	332	61	393	158	58	129	
Shahpur	365	108	473	200	70	100	
Dera Ismail Khan ...	506	87	593	314	88	157	
Dera Ghazi Khan ...	395	84	479	184	70	92	
Banu	379	72	451	238	67	119	
Peshawar	757	265	1,022	406	153	203	
Hazara	456	48	504	277	75	138	
Kohat	442	39	481	178	72	89	
Total ...	14,885	4,179	19,064	7,503	2,827	3,847	

E. NEWBERY, *Major*,
Persl. Asstt. to Inspr. Genl. of Police, Punjab.

APPENDIX XXXVIII.

Miscellaneous papers on the organization of the Native Army and its Reserves.

Memorandum on Organization of the Native Infantry in Regiments of four Battalions, by COLONEL ALLEN JOHNSON.

The objections most frequently urged against the new organization of the Native Army in India are—

1st.—That corps are under-officered in time of war.

2ndly.—That the officers attached to corps have no abiding place in them, but look to be promoted out of them.

3rdly.—That such promotions causing constant change in the *personnel* of corps, officers cannot be known to their men as intimately as they should be, and that, consequently, the ties of interest and confidence between them are slack, if not altogether wanting.

There is, in my opinion, less ground for the first objection than for the other two. The object of the new organization in this respect seems to have been, in some degree, lost sight of. The intention was that native commissioned officers should be officers not in name only, but in fact; that they should for all field duties actually command their companies, even when their companies may be detached. I believe that natives, if properly trained and selected, as they are in many Bengal regiments, are fully capable of the performance of such duties, while for outpost and picquet duties, they are especially qualified. When the paucity of officers is objected to, it will, I think, be often found to arise from the disinclination of commanding officers to employ native officers on the duties they are intended to perform. The establishment of officers with native regiments is maintained on a war footing; for mere regimental duties in cantonments, the old establishment of irregular corps, *viz.*, a commandant, a 2nd-in-command, and an adjutant, with the addition of a quarter master, is sufficient. The remainder, though they have specific duties allotted to them, are practically the reserve. It may, however, of course happen that heavy casualties take place among the British officers, and that men must be drawn from other corps, not in the field, to complete the establishment; and this, under the present system, could, I am of opinion, be done without marring the efficiency of the corps from which the officers were withdrawn. It is, however, obviously preferable that officers not altogether unknown to the men should be sent to a corps on active service; and, under the present system, this would appear to be impossible. Under the present system also, I think, the second and third objections hold good; but I believe, a very simple measure would effectually remedy all three, and, moreover, do so without incurring any increased expenditure, or making any radical change in the existing organization.

My proposal, which has, I believe, been mooted by others before me, is the organization of a certain number of existing battalions into regiments. I would have four battalions to a regiment; the battalions, as now, remaining quite distinct in their organization; in fact, undergoing no kind of change, beyond such a change of designation as may be considered necessary. But the officer joining a regiment should rise in it, and should have no promotion out of it. By promotion I refer only to regimental promotion. The army rank would, as now, of course be guided by the rules already in force, *e.g.*, say, the 1st, 2nd, 3rd and 4th Native Infantry regiments of the present Army List became the 1st, 2nd, 3rd and 4th battalions of the 1st regiment. The officers of the four battalions would get their promotion in the 1st regiment only, the promotion to adjutancies, quartermasterships, wing officerships, seconds-in-command and commands, running through all four battalions on the general principle of seniority, combined with efficiency. The battalion an officer might happen to serve with, would be an accident; the regiment would be his home.

The advantages likely to arise from this measure would, I anticipate, be manifold.

In the first place, an ample and organised reserve would be maintained. It is highly improbable that all four battalions would be on active service at the same time. Indeed, such a contingency might in almost any conceivable case, be specially guarded against by arranging that no more than two battalions of a regiment should be on service at once. The two battalions in cantonments would thus form a natural reserve for the two in the field. From this reserve British officers would be drafted into the service battalions, as occasion might require. If deemed expedient, native officers could similarly be transferred, and the casualties amongst the rank and file could similarly be replaced by trained soldiers of the regiment, instead of by raw recruits, or by volunteers from other corps.

The regimental depôts of the battalions on service would also naturally be formed with the reserve battalions, and the men would proceed on distant foreign service with the greater readiness and contentment from the knowledge that their families remained with their comrades, and under the protection of their own officers. This, however, is another consideration. My present object is to show how the system of officering native regiments will be benefited by the change I advocate.

By the system of promoting British officers in the regiment of four battalions, it would happen, in course of time, that each officer of any standing would have served in various capacities with all, or almost all, the battalions, and would, therefore, have become known to the men and native officers, who would thus on active service, when it became necessary to draw on the reserve, be led, not by strangers, but by officers under whom they had previously served, or, at any rate, by officers of the same regiment under whom they had always been liable to serve.

I think it may be admitted that, if the results I have anticipated are really likely to arise from the above measure, the objections to the present organization already cited, will be efficiently met and

provided for, *viz.*, that a sufficient reserve will be formed for the supply of officers during a prolonged campaign; that officers will come to regard the regiment as their home, and that they will become acquainted with the native soldiery to an extent which could rarely have occurred under any previous system. I may perhaps be considered to beg the question as to the sufficiency of the reserve of officers —a point which must always be more or less a matter of opinion; but for my own part, I am satisfied that four officers are enough for the command of a native regiment within our own territory; and I entertain no doubt that a battalion starting on service with seven officers, and receiving either on going on service, or during the campaign, three more, will be in no danger of disorganization for want of British officers. Of course, it may possibly happen that by some very exceptional disaster, a corps may sustain inordinately heavy losses in officers only, but provision cannot, I submit, be made to meet the possibility of exceptional casualties; and if the usual conditions of ordinary warfare, as deduced from extended experience, are duly provided for, no further provision can reasonably be looked for.

The advantages arising from the system of confining regimental promotion within four battalions, will not, I think, cease with those I have already detailed. An *esprit de corps*, the absence of which I have heard frequently lamented, would inevitably arise. The prospects of officers will be more certain, and their future more defined. A system of purchase, now impossible, would be introduced to the acceleration of promotion. Regimental funds would be placed on a wider and better basis. Exchanges will be readily effected between officers of battalions, which will be highly conducive to the convenience of officers, and not a little to the good of the service.

There is, moreover, a further consideration which may be worthy of notice. Under the present system, the entire promotion of officers of the Indian army is a matter of personal patronage carried on through the office of the Military Secretary; and though I am far from saying there is any improper exercise of such patronage, yet I cannot but think it an anomaly which could not have been intended, and was perhaps not foreseen when the new system was first organized. It is, however, almost unavoidable under the present system. Under the modification I propose, the exercise of patronage would cease, and that of selection from a limited body of officers on clear and definite principles would take its place.

In penning these remarks, I have carefully refrained from introducing any reference to the question how far the principle could be applied to the Native portion of the service, as well by an interchange of native officers, non-commissioned officers, establishments, and so on. I believe it could be done, but would not advocate it, for the present at any rate. There is, I believe, no well-founded complaint as to any inapplicability of the existing organization to natives, and for some time at least change, when not positively necessary, is to be deprecated.

I would only add that I have given four battalions as the strength of a regiment arbitrarily, under the impression that this strength would prove the most convenient for service purposes, and that it would form a sufficiently extended scale for the promotion of officers; besides, I think that it would be found on examination the great proportion of officers, even under the present system of change, will be found to pass through all the grades of regimental appointments within the limits of four battalions.

I do not pretend to do more than to throw out the foregoing suggestion in a crude form, which will doubtless bear much in the way both of modification and enlargement.*

THE INDIAN ARMY.

To plunge at once into the subject, it may be asserted that the future organization and practical utility of the Indian native forces depend on the solution of the problem of leadership,—whether the 7 English and 17 native officers, total 24 officers, and 66 non-commissioned officers are sufficient to control and lead a native regiment? This has given rise to a great deal of controversy among military authorities; and to every enquirer the first questions which would naturally present themselves would appear to be—*first*, have the natives of India, who enlist into our army, sufficient reliance on their fellow-countrymen to accept them as leaders; and second, have the latter in their nature the character and strength of mind necessary to inspire their followers with confidence, obedience, and steadiness of action in times of sudden danger and difficulty?

For the purpose of elucidating these questions, it may be as well to enter into a brief enquiry as to the sources from which officers of other armies are drawn and accepted, by asking,—are men who show aptitude or intelligence promoted from the rank and file to the grade of officer in the practical continental armies, *viz.*, the Prussian, the Austrian, Russian, or even in the English army? The reply to this last is a decided negative; and curiously enough, the collapse of the French army during the Franco-Prussian war has been ascribed by several eminent authorities to be the result of such a system of promotion, though only partially carried out. It was averred by them that by reason of that system the discipline of the army deteriorated; its *esprit de corps* was damaged; its *élan* was extinguished; its interior regimental economy neglected; and finally, the trust and confidence and respect of the private towards the officer destroyed. It is further worthy of note that in the Prussian army (as well as elsewhere), in spite of the complaints of the extreme difficulty they labor under in retaining the services of smart, intelligent under-officers, on whom the authorities freely acknowledge the efficiency of the army to chiefly depend, no effort had been made to attach such men to the army by the offer, as a prize, of a few commissions amongst the most deserving; and it was only the other day that a new rank, but one which is very subordinate,—above which, moreover, they cannot rise,—has been introduced by the Government to meet the above difficulty.

The essence of the fact apparently is,—and it is quietly acknowledged and acted upon in every army,—that leaders of mankind, men who, as it were, act intuitively, to whom appeals are addressed in every emergency, and who naturally take the lead, can only be found in those classes of mankind

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* Undated, but believed to have been written in 1868.

who from their birth, their training, and their history have always been accustomed to act and to exercise their judgment for the many; to dominate—in short, to lead and to command.

If it is openly acknowledged in all continental armies, more quietly but scarcely a whit less decidedly in our own, that it is injurious to the efficiency and perfect leading of regiments to place men who have risen from the ranks in command of companies and in other like responsible positions, how can we, after a consideration of the subject, desire to apply such an organization to our native forces? If the men of England,—a race well known as one whose qualities are of a sterling character, whose independence and stern sense, one might almost add worship, of duty are the outgrowths of centuries of struggles for freedom and right, and whose inherent qualities are cool self-reliance, stolid bravery, and clear judgment,—are not fitted for command, are we not in error to bring ourselves to the belief of the possible application of such a system to the native soldier who from his birth is starved in body and mind, whose moral training is adverse to probity and truth, who for ever remains a child in his father's household and a slave to his caste,—whose whole life, moral, intellectual and physical, tends towards subservience, patience and obedience, to command, and thence desire to be led and looked after—to qualities, in fact, which may develop a steady, willing, uncomplaining, and resigned servant; an abettor in act but not an originator, an excellent follower, but by no means the leader or the principal? If we add to the above qualities the considerations that the present generation of natives have not in any way been brought up under the warlike training and influences which surrounded their forefathers (who indeed lived in turbulent times, when every man was a soldier by necessity), but are chiefly occupied in agricultural and peaceful pursuits, and have thus lost all warlike aspirations, then the imminent danger of entrusting the safety and honor of the bulk of the army, and the fate and prestige of the empire, to the leadership of the inferior race (no matter how well schooled and taught), surely becomes very prominent indeed, and requires more able discussion. Here and there an enterprizing and ambitious native may be met with: a few regiments kept up in the old irregular system would provide ample openings and opportunities for the development of such exceptional character.

I may add that during the Mahratta war there were many and frequent references made by historical critics as to the paucity of the officers employed with the regiments, and the difficulties and dangers to which the army was thereby exposed—arguments similar to those now reiterated by the numerous opponents of the present system. Their remarks seem to have had weight, as they were apparently shortly afterwards followed by a new organization of the native army.

With regard to the status and discipline of the native officer, it may be explained that he has raised himself from a recruit by slow and steady rotation through all the grades of the service till he has attained the rank of officer; but though on many points he may prove himself to be a capable and strong leader, he is, after all, human, and it is impossible for him to cast himself adrift from all caste prejudices and family influences. For instance, a quiet, steady, but uncultivated man—the head of his family—joins the service. He quickly appreciates the advantages of education; and, though personally too old to profit by it, he sends the younger members to the regimental school. They, having reaped the advantages of his steady career and of the education received, pass over his head, and become his regimental superior; but the moment the uniform is discarded, and they retire to their own circle and caste, the elder brother, the private, resumes his superiority, and is obeyed by the officer. Furthermore, the intermarriage of the native officer or of his family with the people of his own caste in the regiment cannot fail to ally him intimately with the men, who are in a lower military position to his own, but stand just as high socially; and hence to expect him to act invariably with strict discipline and stern equity, and in total disregard to his family relations, is to expect more than human nature, especially as developed in the native, can produce.

There are two possible methods by which the discipline under Native officers can be improved. First, by adding to his position and status by some such plan as was suggested by Lord Napier—that is, an infusion, if possible, of a few Native gentlemen; secondly, by separating him from his immediate family surroundings by his transfer on promotion into another battalion. But this would add an additional reason, as the Native officer would be unknown to the men of the regiment, for placing the actual command of the companies in the hands of English officers.

It is constantly argued that the selection of young enterprizing men for the rank of native officer is the panacea for ensuring the efficiency of regiments, which are often, nay generally, officered by old, and possibly effete, men. The present pension rules, however, preclude wholly any such attempt. Were a smart young man promoted in eight or ten years to the rank of officer, undoubtedly he would be smarter in appearance, and possibly would have greater authority for a few years (though this I greatly doubt on account of caste and family ties). But, if healthy, he would have to serve on for 22 to 24 years in the regiment without any further rise, and would become a block to the hopes of advancement of all enterprizing soldiers who might enlist after him. As long as the present pension rules obtain, and the period fixed for service is of such long duration, the discipline, the zeal, and hopes of advancement are best stimulated by the steady promotion of men of neither too old nor too young an age. As long as a man has an inducement before him, he will be urged to exert himself; as soon as he is irretrievably passed over and lost to hope, his thoughts turn to the attainment of his pension. By the steady flow of promotion the regiment maintains a steady average character—one best suited for the test of service.

In Bengal, from the blue-book tables, the average service of a Bengal soldier is only 12 years, possibly accounted for by the leave-granted men to retire at their own option.

It is 15 years in Bombay and 17 to 18 in Madras. Taking the above lengths of service into consideration, and judging from the large numbers of men invalided in one year, *viz.*, from the fifteenth to the sixteenth and again from the sixteenth to the twentieth year of service (see table I), the unsatisfactory conclusion is forced upon us that, out of the nominally effective six hundred privates borne on the rolls of each regiment, a very large percentage (say from 13 to 14 years of service, just before 15 years) is actually physically unfit for service; and that as soon as a regiment is placed under orders for foreign service, what with untrained recruits and non-effectives from length of

service, so many men would have to be drafted out (and that at a most critical time,) that the actual numerical strength of the regiment would not be represented by more than four hundred men:—

This is worked out as follows:—

Table I.

	Number present.	Deduct.	Balance effective.
Number of men under 10 years' service	330	Recruits 90	240
Number of men under 15	140	Unfit 40	100
Over 15 and under 20	50	Unfit 20	30
Over 20 years	80	Unfit 50	30
Regimental Strength	600	Unfit 200	400

A regiment proceeding on active service, all non-effectives having been struck out, would then represent four hundred men, with a reserve of ninety recruits to fall back upon to fill up casualties. But it is laid down that the war strength of each battalion is to be eight hundred privates. The question naturally arises whence are these extra four hundred men to be obtained? The only possible solution at present is by calling for volunteers from other regiments, or doubling up two regiments into one. The blue-book gives no clue to the solution of the problem. This, in plain language, resolves itself into the fact that, while we are paying and keeping up a weak staff of European officers for thirty nominal regiments and a large force on paper (avowedly thirty battalions), only ten regiments (see statement of Adjutant General, Bombay Army, in blue-book) could be sent on service, retaining in hand not more than a very ordinary reserve of men to fall back upon in time of need.

The following rough scheme, it is believed, in spite of several minor objections and disadvantages, is the most practical solution of the difficulty of obtaining a fair supply of English officers for each battalion, a better prospect of discipline from Native officers, a body of robust, well-trained, and physically effective privates, a fair reserve to fall back upon, both of officers and men, a competent staff to instruct and to press forward the training of the recruits, and a nucleus of loyalty in the presence of the old, contented soldiers.

It is proposed to effect this in the Bombay Presidency, where there are thirty battalions—first, by offering several extra advantages, as was advocated by Lord Napier of Magdala (as increased pay to the rank and file and to the Native officers, &c.); secondly, by amalgamating three battalions into one regiment. *Two* of these to be the service battalions; *one* the garrison depôt or nursery battalion. As there are nine battalions of Europeans in the presidency, the thirty battalions might be reduced to nine regiments of three battalions, or eight, if nine are beyond the present limits of expenditure, each regiment being brigaded with one of the European battalions; by which each brigade for service would contain one European and two fully effective Native battalions, the latter having as reserve the third battalion left at the depôt. Thirdly, by a system of extra reserves. Each service battalion is to receive a greater complement of officers than the garrison one (the field officers and staff only mounted, the company officers on foot); to possess a numerical strength of seven hundred and twenty men in peace, soldiers in the vigour and prime of manhood, that is, men from after two and a half to three years of service up to their fifteenth year, or to any such time as may be hereafter determined upon as the average limit of physical duration of a Native soldier. Each depôt battalion would consist of a certain number (four hundred) of recruits, ranging from their enlistment to the third year of their service, and a certain number of old soldiers who, having passed through their tour of service in one of the service battalions, would remain for a certain number of years in the depôt, awaiting pension, doing garrison duties, &c.

The recruits would remain for about a period of three years with the depôt, till they had not only become throughly efficient in musketry exercise and in their other duties, but till they had filled out into fully developed men. Their numbers have been arrived at by taking the average of recruits per regiment during late years (*viz.*, about forty): hence we obtained for the three battalions 100 to 120 recruits a year, or a total of 300 to 360 young soldiers. Carrying these men through the service battalions, and applying the average rate of deaths, &c. (obtained from reports published), after their fifteenth year of service, we should obtain about 200 to 250 old soldiers, retained to swell up this depôt battalion to a strength of about 500 men. After five or six years' more service in this battalion, the residue left might receive a more generous pension. These soldiers, though deemed a little beyond active service, would be well able to perform the ordinary garrison routine, and would form a fair reserve in the case of any emergency arising in the presidency. They would further supply a large body of instructors, to train quickly any great influx of recruits, such as might be necessitated in a stubborn war, and would tend greatly to keep up regimental memories and glories, thereby immensely increasing and strengthening the *esprit de corps* of the younger men. Finally, they might be fully depended upon in times of trouble,—for they have approached the goal of their service (a well-provided and pensioned old age),—to form a body of men most trustworthy and reliable in supporting the interest and preserving the stability of the British Government.

In carrying out the above arrangement of fusing three battalions into one regiment, it would be judicious, when promoting a havildar to the rank of Native officer, to remove him to the other service battalion; and thus withdraw him from the immediate influence of the relations and friends he has been dwelling with, thereby strengthening materially the discipline of the regiment.

Further, to meet the increased requirements of reserves (for the police, the great military reserve to which, I believe, Lord Napier trusted, is now entirely in civil hands, though they should be again altered and made into a reserve,) in addition to the above three battalions, a fourth one,—a short-service

one,—should be instituted. The men forming this might be discharged after they had received a certificate of having passed their recruit drill. They might be retained three or six years longer on a reserve list by some small gratuity or emolument being given them. A very small sum would, it is believed, start them in their village work, and would form a powerful aid in obtaining short-service men.

The depôt establishment of officers and staff, with a very small additional aid, could easily superintend their training; and, while they would add but little to the expenditure, they would form the nucleus of a grand reserve to Government in time of danger. As it is now a question of fresh reduction of expenditure as a set-off against the increasing requirements of military forces, I would strongly recommend the re-establishment of the police force under more military training and discipline. The officers all should be army men, and the whole force trained on a military footing; in which case they would, as I believe was desired by Lord Napier of Magdala, form a very strong reserve in case of real need. I am aware that they may not be considered to be so thoroughly all effective as under present arrangements. But there is at present a great question of imperial policy—and that is the maintenance of a large military force and reserve at a very low cost. To receive promotion more rapidly, and at the same time enable a reserve of officers and men well acquainted with the country to become available,—for it must be borne in mind, if ever we have to deal against so great an empire as Russia, that all our men, all our reserves, and all our latent strength will have to be called into play,—I would suggest that a greater portion of the military reserve should be employed in the Punjab and elsewhere.

Young officers training for the police and other similar departments would be seconded after four years of such work, and after seven struck off the army altogether and placed on the unattached list.

Unhappily the conditions of the staff corps (forming a deadlock in promotion from the superabundance of its superior officers) has hitherto rendered any attempt at reducing the expense of the higher grades completely hopeless. The root of this evil may be traced to two different blunders. The first has been developed by accepting too low an average of years in qualifying for the promotion of the lower grades; and the second, a strong and even more fatal one, of having erroneously adjusted the number of years allotted to each rank. Formerly, a lieutenant was promoted to captain after 15 years' service. This was derived from a fairly high but average length of service on the part of a subaltern. It would have been wiser to have given the rank of captain after 13 years, eight on the present and five on a slightly higer pay, as has been the custom in England. The next eight years should have been passed as captain, dividing it also by five and three years for a slight additional pay; a major for six years, and a lieutenant-colonel five to six years in command of a battalion (five years I hold to be too short a period—six years would meet the difficulty in every way), and thence four years in command of a regiment or brigade. Some such average would have, we believe, better met the expedients of service. As it is, most officers are of 30 years' service before they acquire the command (so that the age of the lieutenant-colonel, 27 to 28 years' service would form no objection) of their regiments in Bombay. In the above scheme, surely it must become very evident on examination that the officers who average 12 years' service must far exceed in numbers those who hold their rank for only five; and hence we obtain at once in the Bombay Staff Corps 80 lieutenant-colonels *versus* 50 majors. Similarly the proportion between the captains and the lieutenant-colonels must be out of all proportion—we have 80 *versus* 99; and by the swamping of the lower grades by higher ranks we have from blue-book only 81 lieutenants. In fact, so long as the present curious and ill-assorted condition of affairs is allowed to continue as regards the Staff Corps, the evil must become greater and greater.

TABLE A

(from blue-book).

Average length of service of officers with regiments in India.

Rank.	Bengal.	Madras.	Bombay.	Remarks.
Commandant	31	35	33	This means that there are no subalterns in Madras, and only one of the seven officers is a subaltern in Bengal and Bombay.
2nd-in-Command	27	32	29	
Wing Officer	20	27	25	
Adjutant	13	16	13	
Quartermaster	12	16	15	
1st Wing Subaltern	12	17	15	
2nd Wing Subaltern	9	13	6	

In Table B I have drafted out a comparative statement, with detail of cost, between the present establishment as worked out from the Bombay Army Regulations of January 1879 and the rough scheme proposed by me, which meets the chief failings of the present Native Army, and possesses the following advantages:—

(*a*) battalions having a fair supply of English officers as leaders, with a regimental reserve of them at the depôt:

(*b*) the rank and file thoroughly effective men, all in the prime of manhood:

(*c*) native officers cut off to a great extent from family influences:

(*d*) men all drilled and disciplined, as there are neither effete nor raw recruits in the service battalions:

(*e*) a fair reserve of recruits, with a staff of teachers in the older men:

(*f*) above all things, an efficient and well-practised training establishment, capable of accommodating any fresh number of recruits and quickly developing them into soldiers:

(*g*) men and officers well known to each other, all having greater *esprit de corps*:

(*h*) a fair prospect of promotion among the officers, whether the staff corps system, modified however, or the regimental is introduced:

(*i*) a system of retaining the services of the best commanding officers by giving them brigade or regimental command for four years, and

(*j*) with the acceptation of the four battalions, a still larger proportion of men immediately ready for active service, and

(*k*) a still greater reserve of men to fall back upon.

For example, on war being declared, the third-year recruits, both of third and fourth battalions, would be at once drafted into service battalions, and would, even after the service battalion had been weeded of weakly men, still fill up the numbers to eight hundred men. The reserves being called out, would, I expect, furnish about three hundred more men. Hence we should have three hundred reserve and two hundred recruits who had finished their first year's training, or five hundred men more ready to follow, and by end of year two hundred more. On the declaration of the war likely to be a severe one, any number of recruits could be called in and placed under the training of the establishment (both young officers and men), and would form a reserve for the casualties of the second year, or, if hard pressed, would be capable of filling the ranks after six months' training.

Even accepting the nine regiments or brigades of three battalions each, and each regiment brigaded into one of the nine European ones, on the declaration of war we could put six European and twelve battalions at once into the field, the native proportion being composed of well-disciplined and thoroughly trained and physically sound and effective men.

The bringing up their numbers to eight hundred or even greater numerical strength could at once be carried out from the senior recruits at the depôt; while at the same time fresh batches would be enlisted, and have the guidance and teaching of both officers and men thoroughly practical in their training duties. Losses in the battalion could at once be made up from the second and first year recruits; while six months after another large batch of the newly-enlisted men could be available, if the necessity was urgent.

The second lot of three European and six Native or three fresh brigades could follow. The first six started in a fortnight or earlier, leaving the presidency to be garrisoned by the old soldiers of each regiment and a few other battalions, which would be moved down gradually from the other presidencies.

Thus, in place of ten battalions (all, the Adjutant General of the Bombay Army stated, was so) weakly officered, men not always physically effective and drafted from several regiments, and no reserves or depôt to train their recruits, we have at about the same cost a finely developed force, physically perfect men and officers, all well acquainted with each other, and a reserve sufficient to meet almost any contingency as to casualties, &c.

The fourth battalion is needed, if it is proposed in time of war to increase the army at once 50 per cent. which would be attained by turning the fourth battalion into the third service one.

The following statement gives a brief comparison of the results obtained.

Present Establishment—30 Regiments of 1 Battalion (worked out from Army List of 1st January 1879).

Present Battalion.

No.	Details.	Cost.	Total.
		Rs.	Rs.
1	Colonel	1,428	
1	Lieutenant-colonel ...	1,098	
1	Major	870	
1	Captain	475	
1	Captain	475	
1	Adjutant-lieutenant ...	425	
1	Quartermaster-lieutenant ...	375	
1½	Officers attached	680	
1	Doctor	600	6,426
	Native.		
1	Subadar-major	150	
2	Subadar-majors	300	
4	Subadar-majors	320	
1	Jemadar-adjutant ...	60	
4	Jemadar-adjutants ...	200	
4	Jemadar-adjutants ...	160	
40	Havildars	600	
40	Naicks	520	
1	Drum-major	15	
16	Drummers	128	
600	Sepoys, at Rs. 8	4,800	
1	Havildar, Musketry ...	15	
4	Naick, Musketry ...	13	
4	Staff	98	
	Mess and Band	200	7,579
	Total		14,005
	Regiments		30
	Total		4,20,150
	Extra cost of Jacob's Rifles		1,800
	Grand Total monthly		4,21,950

Proposed Scheme—9 Regiments of 2 service and 1 depôt battalion.

Regimental Staff.

	Rs.
Colonel commanding	1,600
Station staff allowance	200
Ditto office	80
Total ...	1,880

Service Battalion.

No.	Details.	Cost.	Total.
		Rs.	Rs.
1	Lieutenant-colonel ...	1,300	
1	Major	850	
1	Major	750	
4	Captains	1,800	
4	Lieutenants	1,200	
2	Lieutenants	450	
1	Adjutant-lieutenant ...	400	
1	Quartermaster-lieutenant ...	350	
1	Instructor of Musketry ...	350	
1	Doctor	600	8,050
	Native.		
1	Subadar-major	150	
3	Subadar-majors	300	
4	Subadar-majors	320	
1	Jemadar-adjutant ...	60	
4	Jemadar-adjutants ...	200	
4	Jemadar-adjutants ...	160	
42	Havildars	630	
42	Naicks	546	
1	Drum-major	15	
16	Drummers	128	
720	Sepoys	5,760	
		...	
	Staff	108	
	Mess and Band	200	8,577
	Total		16,627
	Battalion		2
	...		33,254

Depôt Battalion.

No.	Details.	Cost.	Total.
		Rs.	Rs.
1	Lieutenant-colonel	1,300	
1	Major	860	
2	Captains	900	
2	Lieutenants	600	
1	Lieutenant	250	
1	Adjutant-captain	550	
1	Quartermaster-lieutenant ...	400	
1	Instructor of Musketry, captain...	550	
1	Doctor	600	6,000
1	Subadar-major	150	
2	Subadar-majors	200	
2	Subadar-majors	160	
1	Jemadar-adjutant	70	
2	Jemadar-adjutants	100	
3	Jemadar-adjutants	120	
22	Havildars	330	
22	Naicks	286	
1	Drum-major	15	
10	Drummers	80	
200	Old sepoys	1,600	
300	Recruits	2,100	
	Staff	109	
	Mess and Band	200	5,520
			13,400
	Add—Service		33,254
			46,654
	Regiments or brigades		9
			4,19,886
	Add—Extra good-conduct pay ...		1,200
	Extra clothing		800
	Cost of free passage		5,000
	Grand Total ...		4,26,886

It is of course possible to do away with—
18 subalterns ... 300 } 5,400 } 7,425
9 subalterns ... 225 } 2,025 }
without damaging above scheme; but allowing this number of officers to be seconded in police and other duties, we have a grand total of ... 4,19,461

Extra 4th Battalion, Reserve (not absolutely necessary).

Short Service.

No.	Details.	Cost.	Total.
		Rs.	Rs.
1	Major-co.	850	
2	Captains	900	
2	Lieutenants	600	2,350
2	Subadars	200	
1	Jemadar-adjutant ...	70	
2	Jemadar-adjutants ...	100	
8	Havildars	120	
8	Naicks	104	
1	Drill havildar ...	20	
1	Drill naick ...	15	
4	Drummers	32	
240	Recruits	1,680	
	Staff	40	
	Total		2,381
	...		4,731
	Regiments ...		9
	Extra clothing		42,579
			100
			42,679
			4,19,461
			42,679
			4,62,140
			4,62,140

With present establishment we have—

247 officers, English.	70 colonels and lieutenant-colonels.
510 officers, Native.	40 majors.
12,200 effective men.	52 captains.
3,000 unfits.	46 lieutenants.
3,000 raw recruits.	39 unattached.
	247

No depôt, no training establishment, and no reserves.

In those proposed we have—

387 officers, English.	9 colonels.
387 officers, Native.	27 lieutenant-colonels.
14,400 effective men.	45 majors.
2,250 garrison.	108 captains.
2,000 recruits.	195 lieutenants.
	384

An excellent depôt and training establishment, capable of any expansion, supplying reserves of well-taught recruits.

If the staff corps system were still required, the ratio should approximate,—13 years as lieutenants, 8 as captains, 6 majors, 5 lieutenant-colonels, and 4 as colonels. But if the police and other civil appointments are thrown open to lieutenants and captains, and the staff to majors and lieutenant-colonels, I am of opinion the regimental promotion would be better, and tend greatly to improve the regiment. Once an officer had remained over three or four years from his regiment, his place should be filled up, and his name transferred to the General List: he must, for the sake of pension, be considered in the rank he would have attained had he remained with his regiment.

Over each regiment or brigade of three battalions I have placed a colonel,—nine in all,—in a manner similar somewhat to the brigade depôts at Home. This is an essential point in all five-year commands: otherwise the best officers would be thrown out of the service at the prime of their life and experience. By the above arrangement there is a regular rotation throughout. A staff adjutant or station staff is allowed, which would save the pay of the station staff in many places. The stations might be divided among Bombay, Poona, Belgaum, Kurrachee, Sukkur, Mhow, Neemuch, Nasirabad, Baroda, Ahmedabad, Deesa, &c., among which the place for the depôt might be fixed for a certain number of years and then moved to another.

This system would not only afford a prospect of fair promotion, but meets a great difficulty, which is brought out under the five-year rule of command of battalions; that is, the throwing into idleness (and necessary loss to service) of many officers at too early an age. But the nine colonels (say they went home for furlough after their lieutenant-colonel command was over) could afterwards serve four years more as the regiment or brigade commander, and reach then the age of 38 years' service. The pay of the officers has been reduced below present regimental appointments; and it has been done with a view of Government granting free passage home and back to all officers, whether on furlough or sick leave. The sudden demand for passage money is a very hard item, while the saving by furlough pay and reduced pay set down would greatly more than cover the expense of this necessary boon.

In drafting out the above scheme, I have been fully impressd with the necessity of reduction, to meet the financial condition of India. Had it not been so, I should have added the fourth battalion as a necessity, and advocated the extension of two battalions as irregulars, as an outlet for native military ambition. But though convinced of the necessity of economy, I am equally certain that for the welfare and future tranquillity of India it is essential to keep up the Bombay army to its present strength. The reasons are evident and many. In the first place, the geographical position of the country is of such great strategical importance as to form the most important part of our Indian dominion. Secondly, if the armies of the Native Princes are gradually to be diminished, it is well to give the more turbulent portion an outlet for their ambition and restlessness in our own army. Thirdly, though its population is warlike, and may break out here and there into petty turbulent actions, it has not any memories of dynasty likely to provoke it into a general rising against our rule. Fourthly, greater dependence can be placed on the loyalty of the Bombay troops towards our rule than on those in Bengal and the North-West—the more so as they are far removed from the influence of any sinister rumour of any disaster which might possibly attend our arms in the frontier of Afghanistan, and which would undoubtedly have a very great effect upon the North-Western tribes, inciting them possibly to rise for the sake of plunder. Fifthly, though not possessing the height of the Sikh and in some instances his physique (which latter is chiefly due to the small pay, Rs. 7, that he receives—an amount smaller than even an ordinary coolie's pay), they are sturdier men, and, when fed, capable of enduring great fatigue and hardships. Finally, the most important reason of all, I am firmly convinced from the experience of several camps of exercise, that they possess that character and quality which I have been always taught to understand as the first essential of an army in a much higher degree than either the Punjab or Pathan portions of our Indian armies; and that is, strict discipline and cheerful obedience to their officers.

They may not have the dash or frank *élan*, but they have the steadiness and *solidité* (acquired by discipline and reliance on their officers) of the English troops; and, as such, I am firmly convinced are more to be depended upon, should any disaster ever fall upon a portion of our British troops, or the general aspect of affairs look dark and gloomy, than the Sikh and Pathan elements of our army.

Feeling thus strongly that the maintenance of the Bombay army in considerable strength is necessitated by imperial considerations, the more so that we have just lately advanced so far towards Central Asia, I would strongly deprecate their reduction in any way, but would rather advocate an increase of the Bombay portion, in order to keep up a safer balance of the several native elements which make up our army.

I have made no remarks concerning the other branches, more particularly the engineers, who are in a lamentable state of inefficiency from want of men, materials, and equipment, as they form the subjects of a separate paper.

J. HILLS, *Lieut.-Col.*,
Royal Engineers.

Note by Colonel H. BOISRAGON, *4th Sikhs, on Native Army.*

1. The chief point to be considered is how, on any sudden emergency of service, regiments could at once be immediately recruited to their full strength, or, if necessary, augmented; in other words, the best method of forming a "reserve," for which the regimental system seems to offer most advantages *i.e.*, each corps to have its own; but to admit of this, it must be a "*sine quâ non*" that regiments should at once be formed into "class corps," and henceforth be recruited according to the "class" method and not be "mixed," as some are at present; the reasons* and necessities for this are so obvious that it is unnecessary to enter into any details on this subject. A better opportunity than the present one, whilst regiments are now to be reduced gradually to their old strength, could not present itself for the formation of such "reserves."

* One of the chiefest "class" corps would be recruited from a limited circle. Mixed ones might be from Peshawur to Calcutta. No races being excluded from joining "class" regiments, as it is always impolitic to afford any of them the opportunity of considering themselves suffering under martyrdom all to serve beyond their provinces.

2. On this regimental system, the men in each corps might be encouraged to volunteer for its "reserve," also those who have from time to time cut their names, offering certain advantages; and probably those of three and six years would gladly avail themselves of this, and the measure be popular amongst them, as they would thus for the greater portion of each year be at their homes. For this, those of three years' service might be offered Rs. 3 a month pay, those of six, Rs. 5 per mensem whilst unemployed, to be increased to Rs. 5 and 7 respectively when undergoing the annual course of drill, which might be fixed at three months yearly. Travelling expenses paid by Government to and from their homes and the station fixed for this. They should be informed that they would forfeit the extra rupee good conduct pay granted after three and six years, having the benefit of it should they at any time be re-drafted into their battalions, but that their claim for pension would be maintained on becoming unfit for the service. These men to be kept on the rolls of the regiment, their pay drawn in it† and remitted them quarterly, through the civil authorities of the district, who would satisfy themselves of the correctness of all details, and forwarding the rolls of the payee's receipts to regimental head-quarters. The three years' service soldier after six might get the extra pay; the latter must serve up to ten when he might claim his discharge or have the option of joining the "veteran battalion" or "2nd reserve" of his regiment on the pension to which he would become entitled after fifteen years' service, and in which he should serve for five years more (total service twenty years), when, if desirous, he could retire on his aforesaid pension; perhaps whilst so serving in the "2nd reserve," he might receive one rupee extra. The subject of this "veteran battalion" or "2nd reserve" will be more fully entered into in a separate paragraph.

Same in proportion to commissioned and non-commissioned officers.

† As also accounts of arms, &c., &c., and all details appertaining to its "reserve."

3. It will be observed that the foregoing paragraph only refers to *sepoys* and buglers; the difficulty of supplying them with commissioned and non-commissioned officers is greater; it might be overcome by either promoting them from the "reserve" or supplying them from its linked first battalion as they might be termed; the commissioned officers after fifteen years, the non-commissioned after ten; the former to serve twenty years, the latter fifteen, before being able to claim their respective pensions.

4. A more formidable difficulty is furnishing British officers for these reserves; formerly this could have been met by permanently attaching "invalid officers" to them, but this establishment no longer exists, but even this might now be thus surmounted; that these "reserves" should assemble for their yearly practice at the nearest military station adjoining their centres of enlistment. Whilst so employed to be placed under the orders of the officer commanding, who might direct certain officers under his command to take temporary charge of the same, such getting some extra staff pay, whilst so engaged with one British officer from each corps of this reserve, selected by its commanding officer to attend during the "drill season," having his travelling expenses to and fro his regimental head-quarters, and wherever its reserve assembled, defrayed by the Government.

5. The arms and ammunition, accoutrements and clothing, &c., &c., of each "reserve" to be stored in the non-drilling season in the nearest arsenal or magazine of a regiment at the station where such muster in the "drill season," as directed by the officer commanding such cantonment. The quartermaster of such corps storing the same to receive stationery, and his tindal some small extra remuneration for such extra work.

6. Each corps to be always carefully and strictly maintained at its full complement, *viz.*, seven British combatant officers and one medical officer, sixteen native commissioned and eighty non-commissioned officers, sixteen buglers and 600 sepoys as under His Excellency the Commander-in-Chief, and 640 as obtains in the Punjab Frontier Force. Possibly it might be advisable to allow four instead of two, as at present, British wing officers, so as to admit of one, or even two, if necessary, to attend its "reserve" during the "drill season," which "reserve" might be half the strength (certainly in sepoys) of its linked first battalion, which should only supply its "reserve;" enlist recruits for it; its vacancies, if advisable, supplemented by it, and whenever augmentation was necessary fed by the same.

Commandants to be removed from their commands after holding it for five years as substantive lieutenant-colonels. No one under this rank to command. Second-in-command to be held by majors; also perhaps wing commands. Wing officers, two seniors to be captains, two juniors subalterns; adjutantcies and quartermasterships invariably of the latter rank.

7. This "reserve" system might possibly be made applicable, as far as the men are concerned, to the "three arms of the service,"—artillery, cavalry, and infantry—with such alterations and additions as might be necessary for the two first branches of the army, for the artillery supplying guns; as in the Punjab Frontier Force, they are all mule batteries chiefly for mountain warfare; those under His Excellency the Commander-in-Chief being British, few in number, and some distance from the

centres of recruiting of natives of the aforesaid Punjab batteries, it might be requisite for these reserves to attend their "annual course" with their respective first batteries or with one nearest to their homes. For the cavalry they might, as the infantry, at the cavalry stations adjoining their respective centres of enlistment, horses being supplied them from that corps of dismounted men then on furlough and in hospital*. In a military point of view, it would be preferable for the "reserves" of the "three arms" to join their respective branches for the "drill season;" but as in that case the joinings of the men to and from their homes and regimental head-quarters, some perhaps at a considerable distance, would have to be paid by the State, it would add to the financial charges, which should always be avoided; nor probably would this measure be so popular as having to attend nearer their homes, residing in which, connected with all the aforesaid advantages and carrying on their own private affairs themselves for nine months of every year, would offer a great inducement to them.

* Government studs are too few and far dispersed to utilize their being mounted from this source.

8. "Veteran" battalions might be formed on the "reserve" principle, *viz.*, men who have invalided from their corps, consisting of half the strength of *its* "reserve," to be required to serve in it after fifteen years' service with their regiments for five years; to receive the present pensions of their rank through their corps; to be called out for drill for one month of each year (whilst so employed to receive one rupee each a month and travelling expenses paid to and fro) at such time and place and under such orders as their "reserves;" or, as they would not be so young and so physically powerful as the men forming their reserve, they might collect at some central spot nearest to the homes of the greatest number, and be drilled by one of the British officers detailed from the corps, with a few selected instructors; in all other respects, as regards storing of arms, &c., to be dealt with as suggested for its reserve. On an emergency the most able-bodied might be drafted into its "reserve," on a greater pressure with the corps itself; thus with the regiment itself, its "reserve," and "veteran reserve," each corps might be "self-supporting" as it were, and would consist of—

	Men.
Battalion	600
"Reserve"	300
"Veteran reserve"	150
Total ...	1,050

with commissioned and non-commissioned officers and buglers with British officers as indicated herein generally. Here again the old invalid officers might have been utilized. Generally, the "veteran reserve" might be utilized in garrisoning forts, &c., &c. It is a point for consideration how much further they might be in guarding railways, treasuries, &c., thus avoiding so large a police force; at present they are not in any way.

General Observations.

1. The advisability of having "brigade regiments," *viz.*, the "three arms of the service," *i.e.*, each to consist of—

2 guns,
1 squadron of cavalry, †
‡ 600 infantry,

with due proportion of British officers, native officers, and non-commissioned. One company of the infantry to be "pioneer," with an engineer officer attached and *regimental* carriage system.§ Thus this "unit" of the army would be represented by the two scientific branches of the service (engineers and artillery), mounted and foot, would be independent in itself, and ready to move at the shortest notice.

† Now being armed with the Snider carbine. Perhaps "mounted infantry" are not so requisite now as they might have been before.

‡ Five men per company might be re-taught gunnery as before.

§ With judicious safeguards for conveyance of its own supplies, ammunition, &c., &c.

2. Native officers being well paid, to pay for their own uniform and carriage.

3. Pay of native non-commissioned officers to be increased one rupee in each grade, *viz.*, havildar and naik.

4. Sepoys and buglers are amply provided for.

‖ 5. The whole of the native army to receive only furlough pay as before, and at the same rate for any leave beyond two months' privilege, getting two-thirds of their pay for sick leave up to four months, and after that furlough pay, all to be placed under "hospital stoppages" after being in it over one month, above that to be decreased by a graduated scale month by month. On the principle of a "labourer being worthy of his hire," only those performing the duties to get the staff emoluments, including the subadar-major and all ranks, excluding only the colour havildar, which is "honorary." The more the central army is assimilated with their British comrades the greater the political advantage.

‖ Compensation for dearness of provisions to be abolished.

6. Here it might be introduced *returning* to "commanding officers of regiments," the power of reducing a *havildar to naik*, both non-commissioned officers to the ranks, and they with sepoys to dismissal from the service with or without a "summary trial," *as obtained before.*

Conclusion.

1. Herein it has been attempted to condense as much as possible on a subject which is so vital and so large in its scope; even then the outlines have necessarily been extensive.

2. In all countries, most essentially in India, the position of the English element, its paucity, dealing with mercenary troops, the army question always resolves itself into three chief considerations, *viz.*:—

(*1st*) Political.
(*2nd*) Financial.
(*3rd*) Military.

This has been briefly essayed herein.

H. BOISRAGON, *Colonel,*
Commanding 4th Sikhs and Dera Ismail Khan District.

Addenda.

1. It might here become a cognizable point for enquiry whether the Punjab Frontier Force should continue, as at present, under the direct orders of His Excellency the Viceroy and Governor General of India through the Punjab Government; whether it be under the direct and supreme control of the Government of India or that of His Excellency the Commander-in-Chief in India. It is the only purely military force (of such large dimensions,—the few other larger and smaller ones being only contingents with British officers and chiefly paid for by the Native States) almost independent of the head of the army.

2. It might be delocalized gradually, when the advantages therefore of its peculiar border experiences would thus be extended to the entire army instead of being restricted as at present to this force itself.

This might also admit of the reduction of some of the Bengal Native corps, a financial and political gain in money, and of fewer European troops to maintain the balance of the former. This can be effected now that the troops are armed with so superior a weapon as the "Sinder"

H. B.

Scheme for the Reorganization of the Native Army, by Major A. DURAND, *with remarks by Col.* H. H. JAMES, *10th Bombay Native (Light) Infantry.*

This scheme is submitted by me, not because I think it will prove as economical as it appears on paper, but because it contains some useful suggestions for the double-battalion system. I do not personally consider that system so sound or efficient as *strong* single battalions, each complete in every respect in itself.

H. H. J.

1. A scheme for the reorganization of the native army with the view of obtaining increased efficiency, combined with diminished expenditure.

2. The salient points of the scheme are—promotion of officers by seniority in regimental lists, a return to European company leaders, the maintenance of certain strong battalions ready for immediate war service, and a partial adoption of the system of reserves.

3. With this view it is proposed to reform the native army into half the present number of regiments, but each consisting of two battalions, *viz.*, one service battalion of full war strength and one reserve battalion of, in peace time, half that strength, but completed in time of war by the addition of the reserve men.

4. The 2nd or reserve battalion to be stationed permanently in some good recruiting district, to be charged with the enlistment and training of the recruits, and the instruction of all young officers. No officer to be allowed to join the 1st battalion until he has passed the higher standard in Hindustani and the staff corps examination, and no recruit till he has become perfect in all his duties, and acquired due proficiency (90 points in 60 rounds as at present exacted) in the use of his rifle.

5. All recruits to be borne on the strength of the 2nd battalion until required to fill vacancies in the 1st, then to be at once transferred and new men enlisted in their places. The recruits on joining the 1st battalion to go through a short final course of drill and musketry.

6. The term of service for a native soldier to be, as at present, 32 years, divided into three periods. The first period of 12 years to be passed in the service battalion, the second of 10 years in the reserve battalion, and the third of 10 years in the reserve.

7. The commanding officer to have the option of retaining in the 1st battalion, after completion of 12 years' service, such non-commissioned officers and men as may desire it, if he thinks it would prove of advantage to the service.

8. All men on completion of the first period of service to be examined by a regimental committee, and, unless declared thoroughly healthy and efficient, to be discharged with a gratuity of 12 months' pay; those reported fit, if of good character, to be transferred to the 2nd battalion.

Raising the period for first pension from 15 to 22 years will act as a deterrent to recruiting, and render the service less popular.

H. H. J.

9. After completing 22 years in both battalions to be again examined by a committee. Such men as may be found not fit for further service, and those who are unwilling to join the reserve to be pensioned on half pensions (Rs. 4 a month for privates). The remainder to be passed into the reserve, dismissed to their homes, and, on condition of rejoining the reserve battalion once a year for a course of drill and musketry practice and for garrision duty when summoned in time of war or local disturbances, to receive a retaining fee of Rs. 2 per mensem, made up to full pay during the annual periods of training.

This sum will be found insufficient. Naiks and havildars will require more, and so I think will the men.

H. H. J.

10. After ten years' service in the reserve or a total of 32 years' service, to be pensioned on full pay (Rs. 7 for privates) as at present.

This seems a hard measure. Men of long service cast aside without any pension.

This also will act prejudicially on recruiting.

H. H. J.

11. Men becoming unfit at any time of their service short of 22 years, to be discharged with a gratuity of one month's pay for each year's service.

12. It is calculated that altering the time of service for first pension from 15 to 22 years, will cause a saving sufficient to compensate for the extra item of pay to the reserve men.

Scarcely so; other men will have to be enlisted and paid in their places, besides the men in the reserve.

H. H. J.

It will also be found that the number of men who get the *full* pension after 32 years' service will be far greater than under the present system.

H. H. J.

13. Each regiment to consist of the following :—

2 Lieutenant-Colonels.	60 Havildars.
2 Majors.	60 Naiks.
5 Captains.	24 Buglers.
8 Lieutenants.	1,200 Privates.
12 Subadars.	12 Bheesties.
12 Jemadars.	36 Boys.

Eight companies are preferable to double-companies, which, when of full strength, are unwieldy.

H. H. J.

14. The two battalions to be constituted as follows :—The 1st battalion, which would be commanded always by the senior Lieutenant-Colonel, with the two Majors as Wing Commanders, to be 912 strong of all ranks (natives) and composed of four double-companies, lettered A, B, C, and D, each of 220 rank and file, commanded by a Captain assisted by a Lieutenant, who would be specially attached to one of the two companies, commanding it on parade, the Captain taking the other, and the Subadar and Jemadar of each company being the right and left guide respectively.

If these duties devolve on Captains, the present system of two Wing Commanders would be unnecessary.

One Second-in-Command would suffice.

H. H. J.

15. Each Captain to be responsible for the pay, clothing, arms, accoutrements, &c., of his double-company, drawing the Rs. 20 per company allowed for that purpose, and an extra staff allowance of Rs. 100 per mensem. This would bring his pay and allowances up to a total of Rs. 575, a sum that cannot be called excessive, when it is considered that he would have the control and management of 240 men, and that he would probably be an officer of between twelve and twenty years' service.

16. The appointment of a Lieutenant, a specially instructed and passed Musketry Instructor, is recommended for each battalion, on a small extra allowance of Rs. 50 per mensem, who would, assisted by a small staff from the native ranks, conduct the musketry drill, instruction and practice of recruits, casuals, indifferent shots, &c., at times when the annual course is not going on. When not so employed he would, in the 1st battalion, attend all parades on foot, and in case of a wing being detached on service, he would be available to accompany it as Adjutant, which would obviate the necessity of withdrawing one of the Wing Lieutenants from his company duties for that purpose.

17. The Quartermaster of the 1st Battalion not to be mounted, except on the line of march, but on parade and in action to fall in on foot, and, as well as the Musketry Instructor, to take the place of any of the company officers who may be absent from illness or other cause.

18. The object of this scheme is to give each company a British officer as leader and commander in the field, a matter of the greatest importance, for experience has, I think, shown that subadars and jemadars promoted from the ranks under the present system are unfitted for a post of such responsibility, often demanding independent action when detached on service.

19. The only officers mounted on duty to be the Colonel, the Majors, and the Adjutant, as in a British regiment.

20. The 2nd battalion to consist, in peace time, of four companies of 100 privates, each commanded by native officers. It is considered that, although this number includes recruits, it would be sufficient for the performance of the usual garrision and regimental duties of a battalion, no mess guard being required, and some small guards, such as commanding officer's picquet, &c., being discontinued.

Too weak to be of use as a garrison battalion, if it has to provide the usual guards, escorts, &c.

Allowance must be made for absentees on leave, sick, recruiting, drill masters, and the large number of recruits to be drilled here, for both battalions.

Deducting these, not more than 200 or 250 men would be available for duty, escorts, musketry, parades, &c. As all instruction of young officers is to go on with this battalion the number of men will be insufficient for all these duties.

H. H. J.

Both battalions should be under one regimental head.

H. H. J.

21. The battalion to be commanded by the junior Lieutenant-Colonel of the regiment, who would be in a measure subordinate to the commandant, but corresponding direct with army head-quarters.

22. The Lieutenant-Colonel to be assisted by a Captain and a Lieutenant, the former as Adjutant and 2nd-in-Command and the latter as Quartermaster and Musketry Instructor. The Captain to be charged with the payment and supervision of the four companies, and the Quartermaster with the musketry instruction of all recruits, casuals, &c., and care of the arms, clothing and equipment generally of the reserve men. In recompense for the extra duties thus thrown on them, an increase to the usual staff allowance of Rs. 50 is recommended for each.

Considering the multifarious duties that will devolve on this battalion, the number of British officers will be found insufficient, and leaves no margin for sickness or leave.

I would withdraw a Major from the other battalion, and make him 2nd-in-Command of this one.

H. H. J.

These young officers being all learners, will require instruction themselves, and will be of little or no assistance. When qualified, they would be drafted to the other battalion.

H H J.

23. In addition to the above-mentioned three officers, all young officers posted to the regiment would be attached to the 2nd battalion until duly qualified for regimental staff employ.

24. The 2nd battalion to have no mess nor band, but the officers to be required to contribute half subscriptions to the head-quarter mess and band with the 1st battalion, paying the other half to those regiments, of the messes of which they may be honorary members.

25. The officers of both battalions to be borne on one regimental list, and, if the staff corps be abolished, promoted by seniority on such list. Should the present system of promotion for length of service be retained, then the officers would merely succeed to the different appointments by seniority on the list, irrespective of rank; except that the appointments of Adjutant, Quartermaster and Musketry Instructor should be filled by selection only. To stimulate promotion, the command of the regiment should be tenable for five years only.

26. Attached are estimates of the monthly cost of two native regiments on the present system, and of a two-battalion regiment on the proposed plan, showing in favour of the latter a saving in expenditure of Rs. 1,368 per mensem, or a total saving per annum, throughout the 120 present, or 60 proposed regiments of the Indian regular army, of about Rs. 9,85,000, and this with the same strength of fighting-men in peace time, an immediate reinforcement of trained soldiers in case of war, and a large increase (100 per cent. in fact) of the British officers in the service battalions.

A. DURAND, *Major,*
10th Regt., Bombay N. L. I.

NEEMUCH,
21st August 1879.

Monthly Cost of proposed 1st Battalion.

No. and Rank.		Pay of each.	Staff Pay of each.	Total.	Grand Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Lieutenant-Colonel ...	827 0 0	600 0 0	...	1,427 0 0
1	Major, 2nd-in-Command ...	640 0 0	300 0 0	...	940 0 0
1	Major	640 0 0	250 0 0	...	890 0 0
4	Captains	375 0 0	200 0 0	575 0 0	2,300 0 0
7	Lieutenants	225 0 0	100 0 0	325 0 0	2,275 0 0
	Extra for Adjutant ...	...	100 0 0	...	100 0 0
	„ Quarter Master ...	...	50 0 0	...	50 0 0
	„ Musketry Instructor ...	...	50 0 0	...	50 0 0
8	Companies Contingent ...	...	20 0 0	...	160 0 0
	Band and Mess Allowance ...	...	100 0 0	...	200 0 0
4	Subadars, 1st Class ...	100 0 0	...	...	400 0 0
4	„ 2nd „ ...	80 0 0	...	...	320 0 0
4	Jemadars, 1st „	50 0 0	...	...	200 0 0
4	„ 2nd „	40 0 0	...	...	160 0 0
8	Colour Havildars	16 0 0	...	...	128 0 0
32	Havildars	14 0 0	...	...	448 0 0
40	Naiks	12 0 0	...	...	480 0 0
16	Buglers	8 0 0*	...	...	128 0 0
800	Privates	8 0 0*	...	...	6,400 0 0
8	Bheesties	7 8 0	...	...	60 0 0
24	Boys	3 8 0	...	...	84 0 0
	Subadar Major	...	50 0 0	...	50 0 0
	Native Adjutant ...	...	17 8 0	...	17 8 0
	Musketry Jemadar ...	...	10 0 0	...	10 0 0
	Havildar Major†	...	7 0 0	...	7 0 0
	Quarter Master Havildar† ...		14 0 0	...	14 0 0
	Drill Havildar	...	5 0 0	...	5 0 0
	Musketry Havildar ...	...	5 0 0	...	5 0 0
	Drill Naik	...	2 8 0	...	2 8 0

* Average of the four classes.

† The Havildar Major's position is a very responsible one; his pay ought to be increased to Rs. 10 per mensem. The Quartermaster Havildar should get the same. Pay Orderlies' duties are so much increased now, they should get Rs. 7 each.

H. H. J.

Monthly Cost of proposed 1st Battalion—concluded.

	No. and Rank.	Pay of each.	Staff pay of each.	Total.	Grand total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	Musketry Naik	...	2 8 0	...	2 8 0
	Drum Major	...	5 0 0	...	5 0 0
	Fife Major	...	5 0 0	...	5 0 0
8	Pay Orderlies†	...	5 0 0	...	40 0 0
			TOTAL ...		17,363 8 0
	ADD—Monthly cost of proposed 2nd Battalion, as per estimate attached ...				7,004 8 0
	Total cost of a two-battalion regiment as proposed ...				24,368 0 0

† The Havildar Major's position is a very responsible one; his pay ought to be increased to Rs. 10 per mensem. The Quarter Master Havildar should get the same. Pay Orderlies' duties are so much increased now, they should get Rs. 7 each.

H. H. J.

Monthly Cost of proposed 2nd Battalion.

1	Lieutenant-Colonel	827 0 0	500 0 0	...	1,327 0 0
1	Captain	375 0 0	200 0 0	...	575 0 0
1	Lieutenant	225 0 0	100 0 0	...	325 0 0
	Extra for Adjutant	...	50 0 0	...	50 0 0
	„ for Quarter Master and Musketry Instructor ...	...	100 0 0	...	100 0 0
4	Companies Contingent ...	...	20 0 0‡	...	80 0 0
2	Subadars, 1st Class	100 0 0	...	...	200 0 0
2	„ 2nd „	80 0 0	...	...	160 0 0
2	Jemadars, 1st „	50 0 0	...	...	100 0 0
2	„ 2nd „	40 0 0	...	...	80 0 0
4	Color Havildars	16 0 0	...	...	64 0 0
16	Havildars	14 0 0	...	...	224 0 0
20	Naiks	12 0 0	...	...	240 0 0
8	Buglers	8 0 0*	...	...	64 0 0
400	Privates...	8 0 0*	...	...	3,200 0 0
4	Bheesties	7 8 0	...	..	30 0 0
12	Boys	3 8 0	...	...	42 0 0
	Subadar Major	...	50 0 0	...	50 0 0
	Native Adjutant	...	17 8 0	...	17 8 0
	Musketry Jemadar	...	10 0 0	...	10 0 0
	Havildar Major	...†	7 0 0	...	7 0 0
	Quarter Master Havildar ...	...	14 0 0	...	14 0 0
	Drill Havildar	...	5 0 0	...	5 0 0
	Musketry Havildar	...	5 0 0	...	5 0 0
	Drill Naik	...	2 8 0	...	2 8 0
	Musketry Naik	...	2 8 0	...	2 8 0
	Drum Major	...	5 0 0	...	5 0 0
	Fife Major	...	5 0 0	...	5 0 0
4	Pay Orderlies	...	5 0 0	...	20 0 0
			TOTAL ...		7,004 8 0

* Average of the four classes.
† Havildar Major should have Rs. 10.
‡ Insufficient, if all the reserve arms, clothing, &c., are to be left with this battalion.
The Havildar Major's position is a very responsible one; his pay is insufficient; it should be Rs. 10 per month; the Quarter Master Havildar's might be reduced to Rs. 10.
Pay Orderlies ought to get Rs. 7 each.

H. H. J.

Monthly Cost of one regiment on the present system, taking the average ranks now filling the different appointments throughout the Army.

	No. and Rank.	Pay of each.	Staff pay of each.	Total of each.	Grand total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Lieutenant-Colonel, Commandant	827 0 0	600 0 0	...	1,427 0 0
1	Lieutenant-Colonel, 2nd-in-Command.	827 0 0	270 0 0	...	1,097 0 0
1	Major, Wing Commander ...	640 0 0	230 0 0	...	870 0 0

Monthly Cost of one regiment on the present system, taking the average ranks now filling the different appointments throughout the Army—concluded.

	No. and Rank.	Pay of each.	Staff pay of each.	Total of each.	Grand Total.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
	WING OFFICERS. 2 Captains ...	375 0 0	100 0 0	475 0 0	950 0 0
	WING OFFICERS. 2 Lieutenants ...	225 0 0	100 0 0	325 0 0	650 0 0
	Extra for Adjutant	...	100 0 0	...	100 0 0
	„ for Quarter Master ...	...	50 0 0	...	50 0 0
2	Wings Contingent at 85 per wing	...	85 0 0	85 0 0	170 0 0
	Band and Mess Allowance ...	...	100 0 0	...	200 0 0
4	Subadars, 1st class	100 0 0	...	...	400 0 0
4	„ 2nd „	80 0 0	...	...	320 0 0
4	Jemadars, 1st „	50 0 0	...	...	200 0 0
4	„ 2nd „	40 0 0	...	...	160 0 0
8	Color Havildars	16 0 0	...	...	128 0 0
32	Havildars	14 0 0	...	...	448 0 0
40	Naiks	12 0 0	...	...	480 0 0
16	Buglers	8 0 0*	...	...	128 0 0
600	Privates	8 0 0*	...	...	4,800 0 0
8	Bheesties	7 8 0	...	...	60 0 0
24	Boys	3 8 0	...	...	84 0 0
	STAFF.				
	Subadar Major	...	50 0 0	...	50 0 0
	Native Adjutant	...	17 8 0	...	17 8 0
	Havildar Major	...	7 0 0	...	7 0 0
	Quarter Master Havildar ...	...	14 0 0	...	14 0 0
	Drill Havildar	...	5 0 0	...	5 0 0
	Drill Naik	...	2 8 0	...	2 8 0
	Drum Major	...	5 0 0	...	5 0 0
	Fife Major	...	5 0 0	...	5 0 0
8	Pay Orderlies	...	5 0 0	...	40 0 0

TOTAL	...	12,868	0 0
ADD—Cost of one other similar regiment	...	12,868	0 0
Total of two regiments at present	...	25,736	0 0
Cost of 1 two-battalion regiment on proposed plan	...	24,368	0 0
Balance in favour of the proposed scheme	...	1,368	0 0

REMARKS.

1. As a set-off against the anticipated saving of Rs. 16,416 per regiment annually, the following extra charges will have to be considered in connection with this scheme, and very possibly there may be others at present unknown :—

(*a*) Pay of reserve men at, say, 3 per head, allowing 400 per regiment, gives $400 \times 3 \times 12$ = annually Rs. 14,400.

(*b*) Additional pay whilst embodied for drill annually, say, for one month, 5 per head = Rs. 2,000.

(*c*) Travelling expenses to their regiments and back, 3 per head = Rs. 1,200.

(*d*) Grain compensation during same period, say, Re. 1-8 per head = Rs. 600.

(*e*) Extra expenses at depôt for care of arms, clothing, &c., at say, 10 per 100 men per mensem = Rs. 480.

(*f*) Cost of clothing, boots, regimental necessaries, which reserve men must be provided with to some extent by Government, say 3 per head annually = Rs. 1,200.

H. H. JAMES, *Colonel,*
Commanding 10th Regiment, N. L. I. (Bombay).

NEEMUCH,
22nd August 1879.

* Average of the four classes.

Notes on the Organization of Native Infantry, by COLONEL J. J. H. GORDON, *29th Punjab Native Infantry.*

Designation of regiment. District battalions.

Each regiment of infantry should bear the name of a district, from which *alone* it should draw its recruits. Our present regiments of infantry bear local or territorial names, but, with the exception of the Goorkhas, the 14th, 15th, and 45th Sikhs, 23rd and 32nd Punjab Pioneers, their names bear little reference to the various classes which compose them. The Punjab regiments may be termed provincial regiments. In them we find the two great opposing elements of Sikh and Pathan, many of the latter not our subjects. The recruiting ground of these regiments extends from the Sutlej to the Safed Koh. In the remaining regiments we find all classes, hailing from the Khyber to Behar, mixed up together. I think these useful opposing elements are, as it were, neutralized by being thus brought together too closely.

Sir Thomas Munro, in one of his valuable essays on the native army, recommended the formation of regiments on what he termed the village system, that is, each regiment recruited in its special district with a mixture in it of all the fighting classes found in it, as we find them among the inhabitants of the village. Thus in the Jullundur regiment, for instance, we would find the Sikh predominating as in the average Punjab regiment at present, with a mixture of Punjab, Hindu, Mahomedan, and Dogras. The Jhelum regiment would have the Mahomedans of that district predominating, with a mixture of Sikhs. The Rawal Pindi regiments would consist of the various Mahomedan classes of Ghukkur and others of the salt range, mixed with cis-Indus Pathans and a few Sikhs. The Kangra regiments would have the Dogra class predominating, with a few Sikhs. The trans-Indus regiments could be composed of Pathans from within our border, of proportions of all the chief clans in each.

Individuality would be imported to all regiments, and a higher soldierly spirit would be the result; and we should thereby combine the advantages of opposing creeds in the corps, and opposing districts and provinces in the army.

Connected with a system of regimental reserves, regiments recruited wholly from one district are imperatively necessary for the efficient working of such a scheme.

Pensions.

Pensions should be granted for length of service, to be claimed at twenty-one years' service. A soldier invalided before serving that time to be granted a gratuity. Service up to twenty-five years might be allowed if the commanding officer approved, with a pension of Rs. 5 a month in the case of a sepoy and Rs. 8 in a non-commissioned officer.

Enlistment.

The term of enlistment to be for six years.

Regimental reserves.

Regimental reserves to be formed by the transfer of men after six years' service to the reserve list on a pay of Rs. 2 a month, with a pension of Rs. 2 a month on completion of twenty-five years' service from date of enlistment. They should all be dwellers in the regimental district, should join a battalion for one month's training annually up to fifteen years' service, and for two weeks for the remaining period of service, during which time they would draw the full pay of their service.

Battalion organization.

Each battalion to consist of six companies, and the double company to become the unit of command instead of the wing; in fact, the same organization as the cavalry,—three double company commanders with three battalion officers in place of the two wing commanders and four wing officers. The system works well in the cavalry, and should be equally successful in the infantry.

Command allowance to company commanders.

A command allowance of Rs. 15 a month to be given to the native company commander.

Subadar-major and jemadar adjutant.

The subadar-major and jemadar adjutant to be appointments of five years' tenure, eligible for renewal.

Regimental sappers.

A certain number of non-commissioned officers and men in each battalion to be *trained* as sappers. These men to be distributed among the companies. Such a training would enable infantry working parties to be more valuable than at present by providing competent directors of work. Employment for these men could always be found in every cantonment, which would enable them to earn extra pay, such as the annual repairs of Government buildings in the lines, bridges, tanks, &c.

Native officers.

To improve and elevate the general status of the native officers, more young men qualified by position and education should be appointed to the grade of jemadar than at present. One or two approved volunteers as candidates for that rank might be allowed to serve in the battalion for a year without pay, with the honorary rank of jemadar, subject to a military examination before being gazetted to the permanent rank. The sons of native officers and of loyal chiefs would gladly come forward to submit to this training and military education.

Too many non-commissioned officers are promoted to the officer's rank. I don't think such promotions induce a better class of men to serve. I would make the promotion of non-commissioned officers to the grade of officer more especially one for gallant service in the field and faithful service in trying positions. There is too much promotion from the ranks in the native army. It is made in the hope of benefiting the rank of the non-commissioned officer. It does not succeed. The general desire is to get a commission. Those who fail in their object—all cannot succeed—think

they have missed their vocation in life, and are consequently weary of their profession. There must be a large leaven of disappointed non-commissioned officers,—certainly no advantage to the service.

Regiments of four linked battalions.

For the purpose of regulating and equalizing the promotion of British officers, battalions should be linked together in fours. All the British officers of these grouped regiments should be interchangeable, treated for promotion as one corps. Officers would come and go between these battalions with all the advantages of being known to the men, and the number of officers of battalions on service in the field could be increased by drawing on the linked battalions left in cantonments. On service the more British officers there are the better the leading, the better the following will be, the more important and complete the results.

Restoration of power of reduction to ranks of non-commissioned officers, &c., to commanding officers.

The power formerly vested in commanding officers (withdrawn in 1868) of summary dismissal or discharge, and of reduction of non-commissioned officers to the ranks without having recourse to a court-martial, should be restored. Discipline in the ranks, and efficiency among the non-commissioned officers, will be improved thereby.

THULL,
The 15th July 1879.

J. J. H. GORDON, *Colonel*,
29th Punjab Native Infantry.

Organisation of Native Infantry.

There are to my mind three weak points in the present organisation of the Native infantry—

I.—Its numerical weakness in the unit, *i.e.*, regiment and company.

II.—Too great a disproportion between the strength of the administrative unit (*i.e.*, wing) commanded by the British officer and the tactical unit (company) commanded by the Native officer,—thus practically making a double unit.

III.—A want of expanding or re-inforcing power.

I.

The strength of a Native infantry regiment in its Native ranks is—

	Regiment.	Company.
Native officers	16	2
Non-commissioned officers	80	10
Buglers	16	2
Sepoys	600	75

It will be seen at a glance that the weakness lies in the rank of sepoy. Two Native officers and ten non-commissioned officers per company form a large proportion for 75 privates: an increase up to 100 sepoys need not, therefore, entail any increase in the higher ranks.

With only 600 sepoys and the existing rules as regards pension, &c. (necessitating a retention in the ranks of many men fit for garrison but unfit for active service), and with the usual proportions of sick, recruits, absentees, deficiencies, &c., it follows that a regiment can rarely take the field with more than 500 men, a number which must be reduced to 400 when the actual fighting strength is required. And these numbers, say 600 of all ranks for the field and 500 of all ranks for action, are what may be expected under favourable circumstances and at the start of a campaign.

The consequence is that in times of peace duties are heavy and battalion-training is unsatisfactory. In times of war the steadily decreasing strength soon reduces the fighting unit below the limit of useful service.

It may, I think, be conceded that the companies are too weak, and that the strength of sepoys should be raised to 100 per company, or 800 per battalion. The experience of the past campaign has abundantly proved this fact of numerical weakness.

II.

I am of opinion that the administrative unit, *i.e.*, the wing, is too strong with its existing strength: it is more than a single British officer can conveniently and efficiently supervise and instruct. I say single, as I give him no credit for his wing officer, for on service this officer can hardly be counted on for wing duties. There are only two in a regiment to replace absent wing commanders, and to take up the camp and other duties which have to be detailed from the younger officers, such as detachments, guards, pickets, convoys, escorts, &c., &c.

The wing commander has under him—

Native officers	8
Non-commissioned officers	40
Buglers	8
Sepoys	300
Total	356

Now, if the duties of a wing commander are properly understood in a regiment both by himself and the commanding officer, *i.e.*, that he provides entirely for the raw recruit except his instruction and that the after instruction of his men is placed in his hands, then the commanding officer must hold him responsible that :—

I—A full standard of professional knowledge is maintained by all ranks under his command, so far as is possible by theoretical and practical instruction.

II—That his non-commissioned officers are trained for the higher grades of Native officer; and that his Native officers are trained to command their companies under all circumstances of peace and war.

III—That the musketry instruction of his four companies, including the preliminary drill of his non-commissioned officers, is efficiently carried out during the cold season.

IV—That the clothing of his men is indented for, properly fitted, and looked after.

V—That the arms are kept in a thoroughly efficient state, and properly repaired when necessary.

VI—That his companies are supplied with all articles of kit, he being responsible for the supply of those articles which are *not* supplied by the quartermaster.

VII—That the official correspondence of his wing is properly conducted (there is a good deal connected with family remittances and petty petitions); that the accounts are kept correctly (he has to prepare his muster-roll and receive the entire pay due to his four companies, company commanders being responsible for distribution only); that the books are kept up to date, particularly the sheet rolls, which form a record of every man's service, and contain all information useful in case of death, and the half mounting (or necessaries) ledger account, which, since the issue of kit money, is now as important and bulky a book as the ledger of a British Company.

VIII—That the Native officers command their companies with impartiality, and that all reasonable wants of the men are attended to and their claims investigated. For this he has daily to hear the reports of the four companies, when any man may attend and state his own case, which the wing commander decides or refers to the commanding officer.

In addition to the above, as he is the second or third senior officer in the regiment, he must have charge of one or more of the regimental institutions and its accounts.

Now, all the above duties must be required from the British officer. Many of the minor details he can no doubt make over to the Native officers commanding the companies, but generally he is responsible to the commandant for the efficiency of the 356 men under him; and that efficiency will be in the direct ratio of the amount of personal labor he expends and the personal influence he exercises. If a wing commander performs his duties not perfunctorily, but honestly, with the object of having a thoroughly efficient wing, and with a personal knowledge of every man, he has far more than he can do. In the cold weather every hour of his time will be taken up, either on the range in the parade ground or his office, or his class room; and in the hot weather he will find his time very fully employed also. This was the case with me when I commanded a wing, and so I have found it the case with every wing commander who really wanted to *know* his men, do them proper justice, and be all there for anything required of his wing.

A Native Infantry wing, unlike a British Infantry wing, is a complete unit with its own establishments, artificers, records, office, &c., and can be detached and worked as a separate battalion.

In my opinion all this is too much to concentrate in the hands of one officer; a good knowledge of a wing takes a long time to acquire; and the temporary or permanent loss of a good wing commander leaves the wing crippled for too long a time. It gives an officer too much to be interested in. He cannot do justice to his position; and if this is the case with 356 men it will be very much more the case with a wing increased to 456.

Practically he has to do for four companies what the captain has to do for one in a British regiment, so far as administration and instruction are concerned.

I know it can be said that practically there is little to do, and that, except when on the range, half an hour a day will suffice: I cannot admit more of this argument than that the routine work can be done in that time. I have done it myself; but a wing commander who worked on that principle would be but of little use to his commanding officer or his men. The duty, too, by repetition becomes wearisome. Season after season to have to go over the same routine duties with four different companies wearies the best officer; he begins full of zeal each year with the first company, carries it on to the second, begins to droop with the third, and fourth is too often a bore.

But there is a still greater reason for reducing the command. At present there are two units, a tactical and an administrative,—the company and the wing; but practically there is but one, and that is a British officer's command, and this unit is a made-up one whenever a smaller detachment than a wing is required. And the want for such a unit being felt, it is wise to meet it, and create a unit which can be detached complete in itself, and yet which is capable of sub-division. As I said before, if a wing is wanted, it can move out complete with its officers, office, records, artificers, and followers, &c., possessing a sufficient machinery for all its wants; but if anything short of that strength, save a company under its Native officer, is required, some dislocation is necessitated, and the wing has to be broken up, often at great inconvenience, particularly with regard to its accounts and pay.

It seems to me therefore that we should—

I—reduce the strength of the British officer's command;

II—create a convenient unit, both administrative and tactical, of sufficient strength to form a suitable command for a British officer; and

III—give the Native officer a distinct command and responsibility.

The only way to meet the above satisfactorily is to reduce the wing into two double-company commands, each commanded by a British captain, and composed of two distinct companies commanded by Native officers.

The command would be—

Native officers	4
Non-commissioned officers	20
Buglers	4
Sepoys	200
Total	228

This command would be a compact and convenient unit: its strength would give its British commander ample to do in its administration and instruction, and his personal influence would be brought nearer to each sepoy, and his personal knowledge of every man would be far more complete. He would feel that he had a command he could really do justice to, and one well within his powers of work.

As a tactical unit it would, I think, be perfect; double it and you have a wing; halve it and you have a distinct company with its commander, its vernacular records, its machinery complete; and this company you can again halve or quarter without any dislocation or disturbance. Thus, for example, by simply doubling, you can meet all possible wants—

	Strength.			
Section or quarter company commanded by a havildar ...	27	Rank	and	file. I.
Half-company commanded by a jemadar	57	„	„	II.
Company commanded by a subadar	114	„	„	III.
Double-company commanded by a British officer ...	228	„	„	IV.
Half-battalion commanded by a British officer ...	456	„	„	V.
Battalion commanded by a British officer ...	912	„	„	VI.

Supposing a regiment is complete in its establishment, or nearly so, a General has only to consider what strength of Native Infantry he requires, and to name the unit which will about give him that strength, and any unit so named can lead a separate and independent existence without disturbance or dislocation. It is the principle adopted in the Bengal Cavalry as far as the squadron, where it works admirably; it is the only division where the line can be drawn between the British and Native officer, and where the one need not interfere with the other.

I would thus have but one unit for the Native Army, and that unit should be the "British officer's command," *i.e.*, the squadron in the cavalry and the double-company in the infantry: the troop and the company under Native leaders would be sub-divisions of that unit.

Compared with the British unit this Native unit is correctly formed. A British regiment with two Native regiments forms a brigade; half a British regiment would ordinarily be detailed with one Native infantry regiment; and, similarly, the British company would be the proper companion for the Native double-company.

I foresee three possible remarks—

I.—You introduce a new organisation differing from the British.

My reply is such exists already, for the wing organisation now in existence has no counterpart in the British army; and, if the organisation of the Native cavalry differs from that of the British cavalry, and succeeds, why not apply the same principle to the infantry? Again, we may be said to have three organisations, two in the Native Army and one in the British, so that by introducing the double-company system you reduce the two to one. But as a matter of fact the organisation is practically the same, it being all based on the company foundation.

II.—Why not make four large companies?

Because you would at once strike at the root of the present efficiency of the Native Army by destroying the individual responsibility of the Native officer and company commander. With his company, whether on parade or in lines, the Native officer has a distinct command. The British officer above him is merely his administrative chief, who has to conduct all duties which the Native officer cannot do; who connects him with the commanding officer of the regiment; and who is invested with higher powers to meet cases he cannot dispose of. The line is very clear; and with his company command the Native officer has a post of honour and responsibility.

III.—You increase your British officers.

This is no harm so long as you do not increase a needless interference with company commanders. It is an advantage, inasmuch as it meets a great want, that of giving captains suitable employment instead of having them idling as wing officers, a post without any assigned duties or responsibilities.

Having decided on the double company organization, a slight change is necessary in the present system of officering. There are some defects in the present system: (1) that of the command being an unlimited tenure; (2) the 2nd-in-command and wing commander, though performing the same duties and of the same grade, are distinct appointments, and often too high a rank; (3) the subordinate grade of wing officer is often filled with officers of a needlessly high rank. I would suggest, therefore,—

(*a*). That the command of a battalion be held by a field officer, lieutenant-colonel generally, for a limited period of six years. I say six, to admit of his taking furlough and yet having a reasonable term of executive command.

(*b*). That the double-companies be commanded by four officers of the rank of captain or major, never lieutenant-colonel, and if possible only two out of the four to be majors.

(*c*). That there be as at present four company not wing officers, two to hold the appointments of adjutant and quartermaster, the other two merely as extra hands. Personally, I would like to see the appointment of a British officer as quartermaster abolished, and the duties be given to a Native officer, except so far as the clerical duties are concerned; but it is perhaps better to let the present system stand, as it gives a young officer some knowledge of staff duties. I would however take the pay work from the adjutant, who is, I consider, over-worked, and add it to the duties of the quartermaster. Company officers should be of subaltern rank, but an officer should not necessarily vacate on promotion to the rank of captain. As a major he should vacate. The regiment would then be composed of

1 commandant,
4 double-company commanders,
1 company officer and adjutant,
1 ,, ,, quartermaster (and paymaster),
2 ,, officers,
1 medical officer,

making a total of nine combatant and permanent officers, against seven as at present, which number would include *ordinary* absentees, all seconded officers and officers *invalided* to Europe being replaced.

In the matter of their pay, I would much prefer a return to the system of regimental pay as still in force in the British Army in India, fixing it at infantry rates and reserving the staff corps pay as the future unattached pay for officers placed out of employ.

I consider the present system of staff corps pay, and the retention when on leave or furlough by an officer of a moiety of his staff allowances, as a complication utterly unsatisfactory, and a fertile source of discontent and appeal. Far simpler and more satisfactory to give an officer his regimental pay and a command or staff allowance, and require him when on leave or furlough to leave all his command or staff pay to his *locum tenens*. If this were accepted, command and staff allowances might be as follows:—

	Rs.	Rs.
Commandant	400	Command.
Double-company	100 ...	20 office.
Company officer	50	Staff.
Adjutant	150 ...	50 office.
Quartermaster and Paymaster	100 ...	30 ,,

All forms to be supplied by Government, and the writers to be enlisted men and given a small staff pay by their employers, not exceeding Rs. 10 for a double-company, Rs. 15 for quartermaster, and Rs. 20 for adjutant.

All contracts to be abolished, Government to supply such stores as may be actually necessary. There would be a saving with increase of efficiency by so doing.

It is difficult to compare the proposed with the existing; but assuming that there are always two probationers to a regiment, we may take the following as fairly representing the two systems:—

Existing.	Rs.	Rs.
Commandant.		
1 Lieutenant-Colonel ...	820 + 600	1,420
Wing Commanders.		
1 2nd-in-Command, Major ...	640 + 270	910
1 Wing Commander as Captain	374 + 230	604
Wing Officers.		
1 Adjutant	225 + 200	425
1 Quartermaster ...	225 + 150	375
1 Captain	374 + 100	474
1 Ditto.	374 + 100	474
1 Probationer	225 + 100	325
1 Ditto.	225 + 100	325
Total ...		5,332

Of above two may be away on furlough.

Proposed.	Rs.	Rs.
Commandant.		
1 Lieutenant-Colonel ...	1,032 + 400	1,432
Double-company Commanders.		
1 Major	789 + 100	889
1 Ditto	789 + 100	889
1 Captain	415 + 100	515
1 Ditto	415 + 100	515
Company Officers.		
1 Adjutant	256 + 150	406
1 Quartermaster ...	256 + 100	356
1 Subaltern	256 + 50	306
1 Ditto	256 + 50	306
Total ...		5,614

Of which two may be on furlough (except medical certificate).

The cost may perhaps be a little more, but there would be two extra permanent officers in the regiment. The rates of staff and command allowances are lower than at present, and if anything too low.* But they will bear comparison with the rates drawn in the British service. Thus the command allowance, Rs. 400, is the same. The double-company is about the same, considering that in the Native Army the double-company commander commands two companies and is a mounted officer. The adjutant gets less; and the company officers get but little more than horse allowance.

Hereafter, if the officers are recruited as I would propose, the rates would probably be found to answer.

The officers should stand in the grades of double-company commanders and company officers, according to their army rank, except when an officer voluntarily exchanges. This would be more in accordance with the traditions and customs of the service, and would always enable a Commander-in-Chief to transfer a senior officer to a double-company command, in view to his being the actual 2nd-in-command when the senior regimental officer is not considered fit to succeed the commandant temporarily.

Promotion would ordinarily go in the regiment when an officer of the proper rank was available and qualified.

If a return to regimental rates of pay is possible, then the command and staff allowances should be—

	Rs.
Commandant	600
Double-company commander	150
Adjutant	200
Quartermaster	150
Company officer	100

with stationery allowances as above suggested, and *no contract* allowances.

A modification would have to be made in the leave rules. On privilege leave an officer would draw all his allowances; on general leave he would draw the pay of his rank; on furlough the furlough pay of his rank, which would have to be fixed for the various ranks. In the two last instances the acting officers would draw the full allowances. But long furlough should be discouraged by the liberal grant of general leave to *all* parts of the world. A reduction would also have to be made in the staff allowances for appointments all over India if the infantry regimental rate is taken as a general rate instead of the present staff corps rate, which is simply the infantry half batta rate of olden days.†

So far as the tactics are concerned, the slight changes necessitated by the double-company system will be more *real* than *apparent*, that is to say, they will much strengthen the present infantry formations without changing the *modus operandi* appreciably, and without any great visible difference on the parade ground between the two services: this is obviously essential.

Two more points require to be detailed—(1) the grading of officers in a cadre, and their recruitment; (2) the provision for officers who vacate regimentally on promotion to a higher rank than is required for the appointment. These points I will refer to further on; meanwhile I will pass on to the third defect of the Native Army,—the want of expanding power.

III.

The third great defect of the present organisation of the native army is the want of expanding power. A regiment ordered on service has now to start with as many men as it can muster and remain for a practically unlimited period without any reasonable hope of receiving any efficient reinforcement. Even if not exposed to abnormal sickness or losses in action, the mere wear and tear of a campaign will soon reduce it below efficient tactical strength.

In former days, the numerical strength of a regiment, 1,000 sepoys, admitted of a large decrease before a loss of efficiency was caused, and the facilities of recruiting enabled reinforcements to be rapidly raised. Under the present system, sanction to raise the strength by 200 sepoys is generally received after the corps has started, and when the recruits are obtained there are no means of properly instructing them at the hurriedly improvised depôt which is formed on the departure of the regiment.

The present regulations regarding the formation of depôts are most crude; and if on the first occasion of their being required some excuse was admissible for the miserable *pis aller* thus originated, there is absolutely no excuse for perpetuating a system based on no intelligible principle and utterly without organisation. As I said before, a regiment now hurries off with every efficient man it can muster down to the recruit who can barely shoulder his rifle, and the few who are left behind to form a depôt are the sick and weakly men who can do little more than furnish a guard over the regiment stores left behind, and an officer is appointed to take charge who is a stranger to the regiment, has no interest in it, and no object in view beyond doing as little as he can. It cannot be to his interest ordinarily to push on recruiting, and to clothe, arm and train reinforcements for the regiment; yet this is the first and most important duty of the depôt staff. As a matter of fact, the depôt as now constituted is of little or no use, and is only a needless waste of money, as it does not and cannot meet the wants of a regiment on service; whereas, with a very simple organisation, a depôt might be of the greatest use, and its duties may be summed up as follow:—

1*st*.—Recruit, clothe, arm and train reinforcements for the regiment.

2*nd*.—Take charge of all the public property of the regiment, and the private property of officers and men.

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* One great advantage of the regimental rate over the staff corps rate is that it would place the officers of the two services on the same footing, and would be the retention of the present staff corps rate as "unemployed rate" for officers who for misbehaviour or inefficiency were removed from regimental employ.

† If found possible, when calculating the cost of changes proposed in the Army, these rates, except for Commandant, should be increased in view to making the Native Army a career sufficiently good to attract the best class of candidates for the Army and thus secure a body of officers generally above the average. There are many attractions in British corps which make up for want of high rates of pay.

3rd.—Take charge of all the regiment records, keep them up to date, and conduct all the routine correspondence with all departments.

4th.—Be the channel of communication between the men and their families, and arrange for the transmission of family remittances.

5th.—Prepare and despatch, as required, instalments of winter or summer kit, extra bedding, clothing, boots, minor stores, &c., or receive the same from regiments.

To the above I would add the further duty of submitting all the returns and pay accounts of the regiment, preparing them from information and muster-roll sent from regimental head quarters,—a duty which is now most unreasonably thrown on an adjutant in the field, necessitating the transport of a needless bulk of office forms and records.

It is impossible to overrate the advantages of, and indeed the absolute necessity for, an efficient depôt; yet, campaign after campaign, the present system is accepted as satisfactory and enforced. The two points to be considered are then (*a*) a regimental power of expansion, (*b*) the formation of a depôt, both of which should be ever present in the regiment itself.

Firstly, as regards the power of expansion, I consider we should fix the fighting strength of a regiment and maintain it ever ready. Tactically, it is generally admitted that 600 is the strength which a battalion commander can work most efficiently; but to ensure that strength being forthcoming in the field, a large extra allowance must be made for the wear and tear of a campaign and the guards, escorts, detachments and orderlies which a regiment has to supply and which necessarily reduce its fighting strength; 200 would not be an excessive allowance to make for these duties; if anything, it is below the mark.* This would give 800 of all ranks, or about 200 to each double-company, and a regiment thus started on a campaign would be able to place 600 in action or 150 to each double-company. But to start with this strength, further allowances have to be made for—

Sick and weakly men	6 %	=	48
Absent and short of strength	2 %	=	16
Recruits	6 %	=	48
Total	14 %	=	112

And the above may be considered very favorable and generally below the mark. There must always be a percentage of men actually in hospital, of men who are convalescent or hardly fit for the severe work of a campaign, of men short of strength and absent from various causes, *i.e.*, sick leave, escorts, detached duty, prisoners and of recruits; and my experience is that even a percentage of 14 per cent. is ordinarily exceeded.

But accepting these numbers for the sake of calculation, we have—

Fighting strength of regiment	800
Percentage of non-efficient	112
Total peace establishment	912

Of the 112 non-effectives, there are 48 recruits, whose training would be hurried on, and who would soon be ready for the field; there are 16 absent and short of strength, who would no doubt be gradually got together; and there are 48 sick and weakly men, a proportion of whom, say 16, would be ready to join with the first batch proceeding to the front; in all say—

Recruits	48
Absentee, &c.	10
Recovered men	16
Total	74

or from 70 to 80 men who could be looked upon by a commanding officer as his first reserve. This number should certainly be fit to start in six weeks or two months. Meanwhile, the depôt commandant would be recruiting actively and forming a second reserve, which might reasonably be expected to be ready in from three to four months, and so on allowing a period of six weeks or two months between each reinforcement.

With such prospects before him, a commanding officer would leave his station quite assured that his regiment would be maintained throughout the longest campaign up to an efficient fighting strength, and be equal to any duty or to the detaching of a sufficiently strong half-battalion or double-company—an impossibility under existing arrangements.

If to this organisation is added a voluntary reserve list, limited, say, to 100 efficients, there would be a still further addition to the first reinforcement. The reservists would be called in by the depôt commandant on the regiment receiving orders for a campaign and, as they joined, he would clothe, arm, and brush them up with his first squad of recruits ready to march on the first summons. Supposing this reserve to be sucessfully responded to, a regiment could start on service with the certainty of at least 150 men being ready within a very short period to reinforce.

That such reinforcements are sadly wanted is obvious at present. Regiments dwindle down to a condition of practical inefficiency as tactical units; and this gradual reduction of strength necessitates the retention of men in the ranks whose powers are already affected by the campaign, but who are more or less able to stand and march. With a certainty of reinforcement, it would be the duty of a commandant to weed out his weakly men from time to time, and either return them to the depôt or leave them along the line for garrison duties. Many lives would thus be saved which are now lost by the absolute necessity for a commanding officer to work his men up to the last.

By some such arrangement as above sketched out, the power of expansion and reinforcement may be self-contained in a corps.

Secondly.—As regards the formation of the depôt,—a matter which I consider of pressing importance,—it should not be left to the last moment to hurriedly get together a scratch team under a scratch commander. With a peace establishment of 912, the strength available for a depôt will be 112 or 100, according as 800 or 812 is fixed for the field strength of a regiment.

* Lord Sandhurst stated that a regiment could never count on turning out more than two soldiers out of three for action.

This detail should constitute a cadre depôt company, the men being named and a nominal roll kept up in the orderly room and corrected on the 1st of each month, so as to include all sick, absentees, weakly men, and recruits. For this cadre company will be detailed nominally a sufficient strength of native officers, non-commissioned officers, and buglers selected from those whom a commanding officer would most desire to leave behind. The whole would be commanded by the senior company officer, who would be considered the depôt commandant, and be required to keep up the books, &c., laid down for a double-company.

Further, this cadre list should be so far recognised that, though also borne on the rolls of the four double-companies for purposes of pay, discipline, &c., the depôt company men should be considered supernumerary, and on all occasions of inspection and muster those present and out of hospital should be paraded separately under their commander.

There would thus be a reality about the depôt, and proper preparations made by the commanding officer, the depôt commandant, and the men for the duties which would fall on them when orders for service reached the regiment.

To complete the organisation of the depôt company and harmonise it with that of the regiment, the establishment would, on receipt of service orders, be raised to that of a double-company, the company officer promoted to double-company commander, the full establishment of native officers, non-commissioned officers and buglers being detailed from the regimental lists (promotions to be hereafter absorbed, being made in lieu), and the strength of sepoys gradually completed as reservists and recruits came in. With the depôt double-company would also be left a large proportion of the drill staff of the regiment, if not all, and all the surplus native establishments. An extra company officer would also be appointed, either as a first appointment or as a transfer from the supernumerary list of another regiment, unless the regiment had supernumeraries with it filling furlough vacancies, in which case the junior would remain with the depôt. This extra officer would perform the duties of staff officer to the depôt commander, and prepare to join head-quarters on occurrence of a vacancy and relief. The depôt commandant would receive in his promotion a compensation for loss of service, and would also be available to replace a company commandant returning from the front or to fill a casualty in that grade.

If officers were available, another company officer might be posted to the regiment in the place of the officer promoted to double-company commandant for the depôt.

Once the depôt commandant had completed the regiment to full war strength, he would prepare his first detachment for the front, and he would either cease recruiting altogether, or recruit (in addition) to the strength of his first detachment, a matter of detail which would be decided by the Adjutant General according to the probable duration of the service.

The authorised establishment of a regiment would then be—

	Field establishment.	Peace establishment.	Full war establishment.
Native officers	16	16	20
Non-commissioned officers	80	80	100
Buglers	16	16	20
Sepoys	700	800	900
Total	812	912	1,040

The extra strength to be entertained on a regiment receiving orders for the field would be—

Native officers	4
Non-commissioned officers	20
Buglers	4
Sepoys	100
Total	128

The two first would be promoted from the junior ranks, with possibly a few brought in from the reserve, and the two latter would be recruited or brought in from reserve. Supposing there was no regimental reserve list, the full amount of 128 would have to be recruited.

The above increase would only be necessitated in the case of a campaign or foreign service of some duration. In the case of an expedition or raid of short duration the depôt company need not be raised to a double-company, but be simply maintained at the strength of a company, and promotions made accordingly.

A depôt thus constituted would possess an organisation in harmony with that of the corps; it would be part and parcel of the regiment, ever existing in it, and ready for its own special duties; there would be no hurry or confusion on orders for service being received; every officer and man would know his duties and position; the regiment would march out its full strength, and the depôt would at once start in full activity of work; there would be a reciprocity of action between the regiment and the depôt, a subordination of the depôt to the regimental commander (at present the depôt commander is often senior to the regimental commander), and there would be a distinct homogenity in all parts of the regiment, and an organisation admitting of a battalion being ever ready for war (as all battalions in India should be) and containing within its own powers of reinforcement.

Under such a system nearly all the office work of a regiment could be made over to the depôt commander, who, from the information supplied to him by the regiment, would submit all returns, and muster-rolls, and supply the head-quarter and other departments with all information required.

On the return from service the depôt double-company would cease to exist. Reservists would return to their villages, and all supernumeraries be absorbed. A little foresight towards the end of the campaign would prevent any great excess of supernumeraries remaining over and above those absorbed by the invaliding which generally follows all service in the field.

The depôt would also be formed when a regiment left its territorial province for foreign service either in another province or out of India, and it would take the shape of a company or double-company, as may be considered most expedient at the time.

It will be gathered from what I have said that I advocate the retention of the regimental system as at present existing in preference to the formation of three or four battalion regiments. I do so advisedly, not because the single-battalion system has been over a century in existence, or because it at present exists, and not from any prejudice against a system found to answer on the continent: I would stick at no changes, however radical, which promised greater efficiency. But after much consideration I see no advantages to be gained by a change from a system which so completely adapts itself to the wants of India and the feelings of the men as our single-battalion system. We should not, I consider, adopt foreign systems merely because they have been found to succeed elsewhere; we should rather study the principles which lead to success and then endeavour to adapt them to the traditions and conditions of our own armies. Discipline, tactics, and even the details of organization are but means to an end, that end being success in war and economy in peace; and if we can arrive at the same end by a discipline, tactics, and details of organisation more suitable to our war material, we should not be in a hurry to copy too blindly the institution of other armies raised and constituted on totally different conditions. Now the single-battalion system is one which the native thoroughly understands: a regiment is his home for the time being, and for ever afterwards he is more or less associated and connected with that particular regiment; he understands the system, the regimental institutions, the men of the regiment and his superiors, both British and Native, all of which being summed up in the word *esprit-de-corps* would be weakened in a three-battalion regiment. Generally speaking, the native soldier has no desire for transfer even for promotion. If a good man, he is perfectly content to remain all his service in the regiment and take his chance of promotion in it; only the discontented spirits, and there are few, care for change. To link both these battalions together would, I think, foster a desire for change, and applications for transfer would be made by any individnal who felt himself aggrieved. Both with officers and men there would be a growing up of an interest in an institution outside of the individual battalion in which they were serving, and of a desire to change into the battalion which had the most popular commander or was at the best station. And as unfortunately all desire for change is accompanied by a loss of affection for the article actually in possession, I think it better to concentrate as much as possible the affections and desires of officers and men; and for this reason, if for no other, I would advocate the retention of the single-battalion system in the face of the possible advantages to be derived from the linked-battalion system.

But considering the area of country occupied by our native regiments, their detached duties, and their constant liability for war, our single battalions should be ever ready for service, and have the means of maintaining their efficiency when on service.

A. CROOKSHANK, *Major*,
Offg. Commandant 32nd Pioneers.

No. 5C., dated Dehra Dún, the 4th September 1879.

From—Major A. Battye, Officiating Commandant, 2nd Goorkha Regiment,

To—Captain E. H. H. Collen, Secretary, Army Organization Commission, Simla.

With reference to paragraph 4 of your letter "Confidential," No. 41, dated Simla, 8th ultimo, I have the honour to make the following suggestions which I have not entered, or merely alluded to, in my replies to the questions on army organization:—

1. In my reply No. 4 I have given ten as the number of combatant British officers per battalion, distributed as under:—

British Officers.

1	Lieutenant-Colonel ...	Commandant.
1	Major ...	2nd-in-Command.
1	Major ...	Wing Commander.
2	Captains...	Commanding double companies.
2	Lieutenants	Ditto ditto.
1	Lieutenant	Adjutant.
1	Lieutenant	Quartermaster and Musketry Instructor.
1	Lieutenant	For reserve and depôt.

Total 10 British officers per battalion.

Either of the captains or lieutenants (except the adjutant, who has enough to do as adjutant) could be appointed musketry instructor, whoever showed most fitness for it, and be granted an extra allowance together with office allowance.

2. I would not favor the idea of putting the officers of two battalions into one list for promotion, as it would necessitate their being often changed from one battalion to the other, which would prevent officers and men knowing each other, would lessen the interest of the officer in his men, and *esprit de corps* in all ranks.

Two-battalion system deprecated.

3. I would suggest the following alternative plan as combining the advantages of the staff corps and regimental systems:—

Proposed plan of promotion.

Let the promotion of the ten officers whom it is proposed to have in each battalion be regulated by the vacancies in the battalion; but should this delay the promotion to a superior rank of the lieutenant, captain, or major, beyond 13, 21, or 27 years respectively, promotion (which should be substantive and not merely brevet or local) should be given irrespective of there being a vacancy in the battalion, the step being absorbed when the vacancy took place. On the other hand, should a vacancy occur when the next officer for promotion had not completed 10, 18, or 24 years' service, as the case may be, he should not be promoted until he had done so. I have purposely given a larger margin in the latter case (*i. e.*, promotion being accelerated) to compensate, in some measure, for the possible contingency of promotion being delayed beyond the periods now obtaining in the staff corps, *viz.*, 12, 20, and 26 years.

The charm of the present certainty of promotion on completing these periods of service is undeniable, and if in future an officer is not able to rest on this assurance, it would be advisable to offer an equivalent.

4. (*a*) As this change in the system of promotion alone would not suffice to prevent there being more field officers than there were battalions and wings to command, it will be necessary to alter the pension and leave rules which at present tend to counteract each other. The pension rules entitle an officer to the pension of a major after 24 years, of which only two years may be spent on furlough or general leave; to the pension of a lieutenant-colonel after 28 years' service, of which only three years may be spent on furlough or general leave.

Pension and leave rules.

But the furlough rules (1868) allow an officer four years' furlough in 24 years' service, besides general leave. If, therefore, he avails himself of all the furlough he is entitled to, which almost all officers do, he finds he has to serve 26 and 29 years instead of 24 and 28 for the pension of a major or lieutenant-colonel. This doubtless prevents some officers retiring when they otherwise would do so. If in addition to furlough they have taken any general leave, their retirement is still further delayed. All furlough and leave, therefore, should be allowed to count as service towards pension, as is the case in British regiments and in the staff corps, for those officers only who are under the rules of 1875, which were not made applicable to officers who were already (1875) in the staff corps, who were practically excluded from the benefits of these new rules by a clause which made their service towards furlough count from the date of their accepting them.

All furlough and leave to count as service.

(*b*) The scheme under which 90 officers of 28 years' service and upwards are permitted annually to retire on the pension to which they are entitled, together with an annuity representing the estimated value of their prospective claim to the colonel's allowance, should be extended to field officers of 24 years' service, some of whom would be induced to take a pension of £400 a year, made up as follows:—

Annuity scheme to be extended.

	£
Major's pension, as at present	292
Annuity under commutation scheme	108
Total ...	400

but could not afford to retire on £292 only. Those officers, however, who have taken the full amount of furlough they are entitled to, find that they are not entitled to the pension of even £292 at 24 years' service.

(*c*) Now that an officer of 20 years' service in the British army can retire on £200 a year, it seems reasonable to conclude that an officer of the Indian army who has to serve the best part of his life in a tropical climate, should, after the same period of service, obtain a pension of £250 a year.

(*d*) I believe most officers are agreed that it is desirable to limit the period of command of a regiment. I would therefore suggest that a colonel of 33 years' service should relinquish the command of a regiment, and should have the option of retiring on his pension and annuity as now given annually, or be permitted to live in India on the pay of his rank, or in England on £600 a year, until he obtained a brigade or other suitable appointment.

Period of command of a regiment.

In concluding this portion of my letter, I would humbly submit that if all the abovementioned changes were introduced, there would be fewer superfluous officers in the higher grades, efficiency would be increased, and comparatively little added to the expenditure.

5. *The Madras line-boy system.*—In each regiment of Madras Native infantry there are 56 boys, the sons of sepoys of the regiment born in the lines of the regiment, and therefore called line-boys, who are paid Rs. 3-8 a month by Government besides compensation for dearness of provisions. These boys are dressed in uniform, for which they pay themselves, are formed into squads, and drilled by boy non-commissioned officers chosen from amongst themselves. They are divided into two classes, called "pension" and "recruit." In the first are boys of all ages up to 12 years. On attaining 12 years of age, the boy is examined by the medical officer, and if considered physically fit, is promoted into the "recruit" class. If at 12 years he is considered weakly he is discharged at 14 years of age as unfit. On attaining 16 years of age, a recruit boy, if physically fit, is transferred to the ranks as a sepoy. If at 16 years he is considered unfit for enlistment, he is kept on as a recruit boy until he is 18, and then discharged.

Being under thorough control, they are obliged to attend school.

This admirable system ensures the boys of a regiment whom it is so desirable to train for good soldiers, being educated morally, mentally, and physically in a really satisfactory way, which at present there are no means of doing. The want of these means causes many of our line-boys to grow up starvelings with little or no character except for mischief. It also affects their fathers in the ranks, who have to stint themselves to feed a large family.

When, before the introduction of the present rates of good-conduct pay and half-mounting allowance, complaints were heard of the small pay of the sepoy, they were referable more to the pay of the married man with a family than to the batchelor's pay. The latter is now very well off. The former, if he has many mouths to feed, must still find it difficult to do so. There is no better way of assisting him than by the establishment of the line-boy system, by which Government itself must benefit indirectly to a great extent, for that which will conduce to keep the married soldier in good health and strength and bring up his sons as desirable young soldiers must also be to the advantage of Government. Even if only one hundred and ten rupees (Rs 110) per regiment is sanctioned for this measure, very much good can be done, particularly in Goorkha regiments, whose lines are crowded with children of all ages.

In conclusion, may I beg the favor of your correcting the following omission in my reply to question No. 26 forwarded with my letter No. 4C. of the 30th ultimo, *viz.*, add one *Band* Havildar (non-effective) at Rs. 15, making a total of 44 havildars per battalion; also add one *Band* Naick (non-effective) at Rs 12, making a total of 49 naicks. This will increase the excess expenditure from 8 annas, as therein shown, to Rs. 27-8.

P. S.—I attach a tabular statement showing the difference of the expense of the present and proposed organization.

Present Organization of a Regiment of Native Infantry.

No.		Pay of each. Rs. A. P.	Total. Rs. A. P.
Total 7 British Officers. 1	Lieutenant-Colonel, Commandant	1,427 14 0	
1	Major, 2nd-in-Command	910 14 0	
1	Major, Wing Commander	870 14 0	3,209 10 0
1	Captain, Wing Officer	474 1 6	
1	Lieutenant, Wing Officer	325 12 0	799 13 6
1	Lieutenant, Adjutant	425 12 0	
1	Lieutenant, Quartermaster	375 12 0	801 8 0
2	Wing Commanders' contract allowance	89 0 0	178 0 0
1	Adjutant's office allowance	50 0 0	.....
1	Quartermaster's allowance, repair of tents, &c.	25 0 0	75 0 0
16 Native Officers. 4	Subadars	100 0 0	400 0 0
4	Subadars	80 0 0	320 0 0
4	Jemadars	50 0 0	200 0 0
4	Jemadars	40 0 0	160 0 0
40	Havildars	14 0 0	560 0 0
40	Naicks	12 0 0	480 0 0
16	Buglers } exclusive of good-conduct pay	7 0 0	112 0 0
600	Sepoys }	7 0 0	4,200 0 0
1	Subadar Major's staff	50 0 0	
1	Drill Havildar's staff	5 0 0	
1	Drill Naick's staff	2 8 0	57 8 0
8	Pay Havildar's staff	5 0 0	40 0 0
8	Color „ staff	2 0 0	16 0 0
1	Drum Major's staff	5 0 0	.....
1	Fife „ staff	5 0 0	10 0 0
	Total expense of present organization ...	.....	11,619 7 6
	„ „ of proposed „ ...	.....	12,713 9 0
	Difference ...	.....	1,094 1 6
	N. B.—Goorkha Regiments and the "Guides" to have 200 more men...	7 0 0	1,400 0 0
	All other regiments to have a reserve of 200 men	2 8 0	500 0 0

Proposed Organization of a Regiment of Native Infantry.

No.		Pay of each. Rs. A. P.	Total. Rs. A. P.
Total 10 British Officers. 1	Lieutenant-Colonel, Commandant	1,427 14 0	
1	Major, 2nd-in-Command	910 14 0	
1	Major, Wing Commander	870 14 0	3,209 10 0
2	Captains, commanding double companies	474 1 6	948 3 0
2	Lieutenants, ditto ditto	325 12 0	651 8 0
1	Lieutenant, Adjutant	425 12 0	
1	Lieutenant, Quartermaster and Musketry Instructor	400 12 0	
1	Lieutenant, reserve and depôt	325 12 0	1,152 4 0
2	Wing Commanders' contract allowance	89 0 0	178 0 0
1	Adjutant's office allowance	50 0 0	
1	Quartermaster's and Musketry Instructor's allowance	50 0 0	100 0 0
12 Native Officers. 2	Subadars	100 0 0	200 0 0
3	Subadars	80 0 0	240 0 0
3	Jemadars	50 0 0	150 0 0
4	Jemadars	40 0 0	160 0 0
44	Havildars, including { 1 Havildar Major and Drill Havildar, 1 Quartermaster Havildar, 1 Musketry Havildar, 1 Band Havildar } ...	15 0 0	660 0 0
49	Naicks, including { 1 Drill Naick, 1 Musketry Naick, 1 Band Naick } ...	12 0 0	588 0 0
8	Lance Naicks' extra allowance	1 0 0	8 0 0
16	Buglers } exclusive of good-conduct pay	7 0 0	112 0 0
600	Sepoys }	7 0 0	4,200 0 0
1	Subadar Major's staff	50 0 0	
1	Drill Havildar's staff	7 0 0	
1	Drill Naick's staff	2 8 0	
1	Quartermaster Havildar's staff	7 0 0	
1	Musketry Havildar's staff	5 0 0	
1	Musketry Naick's staff	2 8 0	74 0 0
8	Pay Havildar's staff	7 0 0	56 0 0
8	Color Havildar's staff	2 0 0	16 0 0
1	Drum Major's staff	5 0 0	
1	Fife Major's staff	5 0 0	10 0 0
	Total expense of proposed organization ...	.....	12,713 9 0

Dated Kohat, 13th July 1879.

Demi-official from—Major A. G. Ross, 1st Sikh Infantry,

To—The General Officer Commanding, Kohat Division.

I ought to have answered your* letter long ago. I have several times begun to do so, but have stopped, feeling I cannot write efficiently on the subject. I am fully aware of the necessity of some system of increasing the Army in time of war speedily and effectually, and I agree that a reserve should be formed; but I confess that my inexperience in dealing with questions of this sort trammels my power of sketching how a working reserve should be organized. I hope you received the return which I sent you, showing the strength of the 1st Sikh Infantry on 21st November 1878, its distribution on that day, its casualties, and increase from 21st November 1878 to 18th June 1879, and its strength and distribution on the latter day.

* Kuram, 23rd June 1879.

I do not like the present system in the Native Army of allowing in peace a soldier to claim discharge after three years. I certainly would not give him the option until after five years, although of course commanding officers should have discretionary power to allow any soldier to go, if the commanding officer is convinced it is better that he should be allowed to go.

Service.
Period.
Five years compulsory, unless commanding officer wishes to let a man go.

When a soldier left either before or after five years, but before ten years, I should draft him into a reserve, where I should keep him till twelve years had passed from his first enlistment.† His average age would then be from 31 to 34. If he had done his five years in the Army, he would do seven more years in this reserve. For distinction's sake call this the first reserve.

N. B.—Important note. Compare pension views.

† I would then have done with him, and would not give him any pension, save wound or injury pensions, if he left before ten years with the colors, and has not any claim to pension in the future.

Into this also I should draft every private who remained with the colors and completed ten years' service. I would not give him further choice,‡ but on his completing ten years as private, I would send him to this reserve, and retain him on its rolls for two years, *i. e.*, till twelve years from the date of his first enlistment were completed. The first reserve then would consist of soldiers leaving the colors voluntarily at any time in the first ten years of their service, a permission I would not as a rule give before five years of service, and also all privates completing ten years' service, who, as a rule, would be sent to the first reserve. Any *very* exceptional case, whom it was desired to retain for special years with the colors after ten years' service, could be specially referred.

‡ This man of ten years' service with the colors would have claim to pension after fourteen years in the reserve, *viz.*, after twenty-four years' service, see *Pension* views.

I think the men would leave the colors in considerable numbers after five years' service, and by keeping them five years, you would have a fine serviceable corps, and would not be afflicted by never-ending bands of young recruits, always learning and too unformed to bear on an emergency hard work. Up to ten or even eleven years, you get capital work out of a private, as far as strength, health, and toughness go.

To suit these arrangements, first I would give as now one good conduct stripe after three years, and the second after seven years, instead of nine years, as now. I would do away with third good conduct stripe, the present first class one given after fifteen years.

New proposal,—*good conduct pay*, two rates—lowest or second class after three *years*; highest, or first class, after seven *years*.

A soldier staying as a private ten years would thus get—

For 3 years Rs. 7 per mensem.
For 4 years more Rs. 8 per mensem.
For 3 years more Rs. 9 per mensem.

This reserve should be embodied once a year for drill and exercise for such time as experience showed to be enough. It should not be embodied longer than is absolutely necessary.

Embodying first reserve.

While embodied, the men should receive the pay (including good conduct pay) they were drawing when they left their regiments for the reserve, *viz.*, Rs. 7, 8, or 9, as the case might be.

Pay.

There should be reserve head-quarters or depôts where arms and accoutrements should be kept, and to which ammunition should be furnished each year as required.

Arms, &c.

As regards drilling, while in reserve each year I would not bother about uniform. I would let each man wear his natural dress. But as regards uniform on leaving to take the field suddenly, and join the colors, I confess I do not see my way, unless Government at some central depôts will keep up supplies of warm and light uniform for the reservists. I should have any such uniform khaki for all corps, and should have it of flannel, or English serge. Through the compaign reservists would work in this scratch uniform; and I would not let it matter one bit that they were not uniform in dress with the "soldiery who were with the colors." So many anomalies prevail on service, that I should not mind guards of mixed "soldiery with the colors" and "reservists" looking queer, so long as they were serviceably and usefully dressed. Any mark such as a turban fringe or cap, would show that the wearers were reservists, working with such and such a corps.

Uniform.

A scheme for paying reservists would be easily organized at reserve depôts. In war, the reservists' office work would go on at their depôts. Any money they required in the field they could get as advances.

Pay, &c.

Reservists would be entitled to the benefits of the family pension for their heirs under the same rules as prevail for soldiery with the colors.

Family pensions.

Perhaps six weeks, or even a month, would be enough. I should not have much squad drill, if any, company drill just to get men together; then battalion exercise, simple line and column marching and wheeling for a few days, to make men work together; then the same across country with application of all movements to the ground crossed; then plentiful skirmishing and attack formation,—all with application to the ground

Drill and exercises six weeks or two months.

Besides these drills, guard and sentry work to be rubbed up.

Out-posts to be worked up along with skirmishing.

From the first day of joining, aiming drill to be begun and perfected, and men examined and rubbed up in all points relating to the rifle.

Firing exercise to he rubbed up, and some attention paid to the more useful motions of the manual exercise.

A short course of ball practice, to be carried out at all ranges, and collective firing, *especially in volleys*, to be assiduously practised both with blank and ball cartridge. The object should be, not to produce mechanical and rigid smartness in drill, but to refresh the men's memories, and rub up their practice, and make them quick, ready, and roughly adaptable for use on broken ground and in hills. I would not bother much about the step, as I think the English quick step unnatural in cadence for almost any human being; and as long as men can march in fours in bodies, all practical purposes are attained. Men without ears for music march independently of its cadence; men with ears for music fall into its cadence when it plays; and most men the moment a band stops drop out of the cadence of an English quick step, and adopt their own gait on the line of march.

At reservist drill, route marching could be combined with battalion skirmishing and out-post drill.

Pensions.

This is a terrible question. The present system is very unsatisfactory, save for Native officers, non-commissioned officers, musicians, and buglers, to whom I would not apply my ten years' drafting rule; pensions would not be required for privates with the colors. The present system of gratuities, wound and injury pensions would serve for them, unless some pension was fixed for healths broken in war time.

But some scheme would be required for the reservists. Before taking this up, I would say that after the completion of twelve years from date of first enlistment, I would draft all reservists* into a second reserve or landwehr, where I would keep those who retain health for twelve years, *viz.*, till the completion of twenty-four years from date of first enlistment. I would embody this second reserve a fortnight or three weeks or a month in each year, as might be found necessary; but I think as a rule a fortnight would suffice. While embodied I would give them all at the rate of Rs. 9 per mensem. I would not bother them with any uniform or drill of *movement*. "Rifle exercises," a "small amount of individual ball practice," and "guard and sentry duties" would be all I would trouble them with. This landwehr in time of war I should use to garrison forts, stations, and do escort duty in our own territory. Therefore, I should want to ensure only that they could mount guard, do "sentry go," and use a rifle.

* Second reserve, who had done ten years with the colors, two with first reserve

N. B.—Not men leaving colors before ten years.

Its embodiment.

Their pay.

Their training.

Their duties in war time.

Save in special cases to be very closely looked after, no reservist should get a pension until after twenty-four years from date of first enlistment.† Even if a man stayed ten years with the colors, he would be at his home for fourteen years more in the reserve, *viz*, two in first and twelve in second reserve. Every year he would get for periods of from fourteen days to two months at the rate of Rs. 9 pay when called out, but after twenty-four years I think Government might give him a pension. Of course reservists broken down in war should get pensions from date of being invalided. These reservists, save in some desperate struggle, would be all under twelve years' service, and the pensions should therefore be graduated down from four according to the length of the claimant's service.

† Pensions.

N. B.—And then only if he had served *ten years with the colors.*

As to those remaining with the colors, Native officers, non-commissioned officers, buglers, and musicians, I think that after fifteen years' service non-commissioned officers might be allowed to go and join the second reserve, receiving, when called out, non-commissioned officers' pay. They would do for working both the first and second reserve, and could be supplemented in *the cases of smart men* by promotions from the first reserve. Native officers also, perhaps, might be allowed to join the second reserve after twenty years' service.

Pensions of those who are not privates, and who remain with the colors

General Remarks

To privates I would not give any pensions at all till after twenty-four years' service, save wound and injury pensions and pensions for health failing in time of war, when reservists would be embodied on a war footing. These I would make liberal pensions.

Recapitulation as to privates.

To non-commissioned officers whose *health fails*, I would give pensions after fifteen years at Rs. 4 per mensem.

Pensions, non-commissioned officers.

Health failing after fifteen years.

I would allow non-commissioned officers in good health to join the second reserve after fifteen years' service, but would not make this compulsory. If they did, I would give them pensions of Rs. 6 per mensem after twenty-four years' service.

Alternative to non-commissioned officers of joining second reserve, and pensions in that case Rs. 6 after twenty-four years.

To non-commissioned officers remaining efficient with the colors, I would give the present pension of Rs. 7 per mensem, whether they were well or ill, after twenty-one years' service, but would not make the taking of it compulsory as long as the men were efficient.

Pension, Rs. 7, given freely after twenty-one years with colors. No limitation.

To non-commissioned officers, I would give pensions of Rs. 12 for subadars, and Rs. 8 for jemadars, if their health failed after fifteen years' service.

Pensions, Native officers, after fifteen years, health failing.

After twenty years' service, I would let them join the second reserve if their health was good, giving subadars pensions of Rs. 20, and jemadars pensions of Rs. 10, after twenty-four years' service.

After twenty years' alternative of joining second reserve, and pensions in that case after twenty-four years

To those remaining with the colors, I would give the present pensions of Rs. 25 and Rs. 12-8 (subadars and jemadars) after twenty-five years' service, whether well or ill, as long as they remained quite efficient. I would not make the taking of it compulsory as long as the officer was quite efficient.

Remaining with colors, absolute pensions after twenty-five years.

If a Native officer's health broke down at or after twenty years' service, I would give him as subadar Rs. 18, and as jemadar Rs. 9 pension. If with the colors he attained over twenty-three years' service and broke down, I would give him the reservist pension of Rs. 20 as subadar and Rs. 10 as jemadar.

Health breaks down in twenty years,—pensions. With colors, and he passes twenty-three years and health breaks,—pensions

I would not have any enhanced pensions at all for any one.

No enhanced pension.

To buglers and musicians I would give Rs. 3 pension after fifteen years' service if their health broke down, and Rs. 4 after twenty years' service if their health broke down. After twenty-five years' service, I would let them go, well or ill, on Rs. 4 per mensem.

Buglers, musicians, pensions; health breaks after fifteen years; after twenty years; after twenty-five years; no limits.

Bugle-majors and assistant bugle-majors I would treat like non-commissioned officers as regards pension.

It will be seen that all men leaving before ten years' service with the colors are not to get any pensions at all, save wound, injury, and some small pension graduated down from Rs. 4 per mensem if their health is ruined in war time.

Recapitulation
Privates leaving colors before ten years; no pensions.

Men serving with the colors ten years are to get pensions after twenty-four years' service from date of enlistment. Of course they too would get wound and injury pensions and pensions graduated down from Rs. 4 per mensem for health ruined in war time.

Serving with colors ten years, pensions after twenty-four years, all told.

If their health broke thoroughly while they were in the reserves, so that they could not turn out for annual gatherings, they might receive pensions of Rs. 2 after fifteen years, and Rs. 3 after twenty years, but this would have to be very closely looked after.

Proposals if health broke while in second reserve.

Personally, I think men might stay twelve years with the colors and twelve years with second reserve; but if it is preferred, as I have said, ten years might be with the colors, two in first reserve, and twelve in second reserve.

Alternative proposal, men to serve colors twelve years, second reserve twelve years.

One great point is, that for health *manifestly ruined on service*, Government should give compassionate pensions, graduated down from Rs. 4 per mensem, for men of twelve, nine, six, and three years' service, and under. It is not a man's fault if special exposure and hardships break his health entirely.

Strong point,—Government action if health is ruined by field service.

Recruiting.—Every regiment should have two battalions; of these, one should go on service complete, the other should form the depôt for the two, and receive and train recruits. If the recruiting *depôt* system is not used, this stay-at-home battalion should arrange for recruits. Battalions of a regiment ordered on service should go turn and turn about.

In the Indian Army, corps are so mixed, that they cannot be told off save in a few instances to districts. In the instances where corps are homogeneous* I would always have one battalion in the regiment's district, and one serving out of it. They could relieve each other as thought necessary.

* *e. g.*—14th Sikhs. | 23rd Pioneers.
15th „ | 32nd „

In mixed corps, whether the companies be class or mixed, I would keep the two battalions of a corps either together, or if the station was for only one corps, as near one another as possible. When possible, I would have them in one station commanded by lieutenant colonels, with a colonel in command of both, *i. e.*, of the regiment. I would have them exactly the same in every way, and I would promote officers and Native officers through both battalions. Save under special circumstances, I would let only one-half battalions go on service together, keeping always at least one-half battalion at the depôt. For homogeneous regiments, I would try and work so that their own reservists should always join their old regiments. Indeed, I would try to arrange this in all cases as far as possible, as the reservists would prefer their old corps.

When regiments were ordered on service, first reservists would come up and increase their strength as required. The stay-at-home battalion or half battalion would also hand over trained soldiers, and proceed at once to obtain and train recruits to be ready for eventualities.

If the war was heavy, and districts in rear were denuded of troops, the second reservists would be embodied, and do garrison and escort duties.

Other points.

Non-commissioned officers.—Some punishments should be devised for non-commissioned officers, besides those given by court-martial, loss of staff appointment, and reprimand. I think a commissioned officer should have some powers over a non-commissioned officer, who without committing a definite offence is lazy, careless, ignorant, and slack; promotion is carried out by an exercise of judgment. The judgment may have erred. After serious warning, a commissioned officer, I think, might summarily reduce a non-commissioned officer who was a failure as a non-commissioned officer, from being persistently careless and slack, or from neglecting to learn.

Punishments, non-commissioned officers.

Followers.—At all stations and places, and at all times, a commissioned officer should be allowed to flog and fine as the Articles of war allow him to do in camp, and at certain posts defined by Government, *vide* Indian Articles of War.

Followers—punishments.

Rifles.—The commissioned officer and a board of officers should be allowed to fine men who through carelessness maltreat or injure their rifles, especially the barrel, without rendering it unserviceable.

Damaged rifles—fining.

Clothing.—The Government, like the Austrians, I believe, should start factories for all clothing necessaries, make them good and cheap, and issue to regiments as they required them. Or if this is thought to interfere too much with general trade, the Government should help traders who serve their troops and give them facilities for getting military necessaries of a good kind up to distant and out-of-the-way stations.

Clothing, troops.

Subadar-major.—Should be an officer apart from a company officer; he is now the senior Native officer. Let him be apart, and have eight subadars besides.

Subadar-major.

Drill-havildar.—There should be one as now, but he should not do the work of havildar-major as he does now with great inconvenience. There should be a havildar-major besides the drill-havildar. He should be the senior havildar of all, and extra to the company establishment of havildars. I would not give him a sword; however, the drill-havildar is, and should remain, the holder of a staff appointment, and be without rank as *drill*-havildar. At present he does havildar-major's work, and gives orders to his seniors. He also receives reports from his seniors, and no matter how officers try to arrange this, anomalies will occur. Though the drill-havildar now has not any rank as such, he is treated by all the men as havildar-major, and is habitually called so by all ranks, British and Native, save in the order book and returns.

Drill-havildar and havildar-major.

Bugle-major and assistant bugle-major.—They have not any rank, but are only two of the sixteen buglers. The bugle-major should rank as a havildar according to date of appointment as such, or as it would be then "promotion to such."

The assistant bugle-major similarly should rank as a naick. At present, these men draw good conduct pay like the buglers. They rule the buglers, but have no rank in the regiment, as they ought to have; they wear sashes, and receive superior clothing.

Short service men unfit.—No committee should be necessary. The medical officer and commanding officer should be able to get rid of such men, entering them as usual in the monthly return, and the commanding officer drawing any gratuity required on a copy of his regimental orders, and a certificate from medical officer.

Short service men unfit.

Young soldiers.—The power commanding officers have under Bengal Army Regulations of dismissal of all men physically unfit or unlikely to become good soldiers should be extended to services of two years, and should include all men of dubious character who are not creditable soldiers. I think this power might be given in an Article of War.

Young soldiers.

Invaliding.—Invaliding committees should be less exclusively medical; they should be mixed. At present, it is most difficult to get general orders carried out, and have any obese, worn-out, stupid old man got rid of. Medical men read the medical officer's remarks, and if he says "no medical history," the man is usually sent back. But from failure of mental and bodily vigour, a man is often unfit for work, although his frame may be plump, his flesh fairly fair, his eye bright, and his teeth good. If medical officers look chiefly to medical reasons, there should be some channel for giving effect to the general order, which directs the sending up of old, lazy, incapable, stupid men, unable to learn or work longer.

Invaliding.

Every year somewhere trouble arises from this, and appeals have to be made to the General Officer in command.

I fear I have written a terrible scrawl. If any part is useful, you are welcome to use it.

No. $\frac{85}{Q.M.}$, dated Jellalabad, 31st May 1879.

From—Major A. G. Ross, Commanding 1st Sikh Infantry,

To—The Assistant Adjutant General, Punjab Frontier Force.

Report on compensation to puckalies for forage for mules.

I have the honour to reply as follows to your No. 412, dated 26th May 1879, forwarding a letter No. 65, dated 9th May 1879, from the Officer Commanding 4th Punjab Infantry, concerning compensation for dearness of food and forage for puckalies who are obliged to feed their mules at a certain rate, *viz.*, 2 seers of grain and 6 or 7 seers of bhoosa daily.

2. I am of opinion that the puckalies should receive compensation for food and forage when the aggregate cost per mensem of their mule's ration of grain and bhoosa exceeds Rs. 4. The daily ration should be taken as 2 seers of grain and 6 seers of bhoosa, as in the cases of Government mules. I am aware that puckalies, like other mustered public followers, receive compensation for dearness of provisions; but this affects the portion of their pay which they receive in common with bhisties, *viz.*, Rs. 5. The Rs. 4 allowed for their mules should be supplemented when the cost of food and forage in any place at the rate I have named exceeds Rs. 4 per mensem.

3. The pay of puckalies is, doubtless, eked out by donations of food given to them by the men and camp-followers; but, under the system of chunda-cuttings in vogue in the frontier force, they are often very hard up.

It is often a great struggle under the work the mules have to do, and considering the pay the puckalies receive, to keep the puckalie animals in good order.

Moreover, when new puckalies are entertained, they very seldom have puckals, bokas, ropes, and mussucks complete, and consequently these have to be purchased for them. The cost is often

Rs. 35 or Rs. 40, and on this account the men have often to undergo heavy cuttings. On all these counts, I strongly recommend that compensation for food and forage for their mules should be granted to puckalies when the aggregate cost of the ration of their mules (2 seers of grain and 6 seers of bhoosa per idem) exceeds Rs. 4 per mensem.

No. $\frac{77}{Q.M.}$, dated Jellalabad, 23rd May 1879.

From—Major A. G. Ross, Commanding 1st Sikh Infantry,

To—The Deputy Adjutant and Deputy Quartermaster General, 1st Division, Safed Sung.

Report on Kabul scale.

I report on the Kabul scale in Quartermaster General's No. 5949A., dated 8th November 1878, as ordered by demi-official No. 1005, dated 19th May 1879, which has published Quartermaster General's No. 889F.C., dated 8th March 1879.

I.—Camp equipage.

I can speak only as regards officers,* Native doctors, Native soldiery, Native sick, Native followers, guards, and messes and offices.

* *Viz.*, Commanding officer, other British officers, Native officers.

I agree with the scale in all these points save guards. I think Native infantry regiments should have 4 lascar pâls for guards. These are required for quarter and rear guards and flank picquets. One pâl would perhaps suffice for the flank picquet, but many detachments, guards, and escorts fall to a Native infantry corps; and during the campaign I have often in wet and inclement weather had considerable trouble to get covering for out-guards, which were often told off at short notice. Sometimes tents were procurable from the department or place guarded by the guards, but very often I have been ordered to arrange regimentally; and hence I say, to meet contingencies, four lascar pâls are necessary for guards in a Native infantry corps. All guards' pâls should be "lascar," as they have to be pitched separately.

II.—Intrenching tools.

The supply of filling axes, shovels, and picks seems to me based on a good calculation.

I have not seen many opportunities of using the bill-hooks, but for Afghanistan 30 per cent. seems a very liberal allowance. In a regiment, 650 strong, there would be 195 bill-hooks. Twenty per cent. would give 130 bill-hooks; and I think 130 bill-hooks enough for 650 men.

III.—Baggage.

Not having had experience, I cannot speak on any points connected with general officers, British troops of any branch, native cavalry, and artillery and sappers.

As to officers, men and followers, &c., of Native infantry corps, I agree with all the details as given in the scale, save the following: I agree because from my experience, and in my opinion, the rates in the scale seem sufficient and seem to have worked well:—

Exception (a).—Native non-commissioned officers and men 20 lbs.: 29 lbs. are not enough for winter in Afghanistan. As a matter of fact, almost simultaneously with the Kabul scale, a division order allowed carriage on the advance taking place from Jamrud, for the men's great-coats, and extra carriage for their warm clothing. This boon enabled any necessary clothing to be carried in excess of the 20 lbs. whenever carriage was available.

The 1st Sikh Infantry crossed the frontier on 20th November 1878 for Kuth Kushta, clad as follows, and with the following kit on mules and camels:—

Worn by the men.

(1) Regimental turban, with "mufti" turban below it.
(2) 1 coat and knickerbockers of half-mounting drill.
(3) 1 pair of shoes.
(4) 1 suit (kurta and pyjamas), Hindustani clothing, worn under uniform.
(5) 1 poshtin, carried on back in straps.
(6) 1 havresack and 1 canteen.

Carried with baggage.

	lbs.	oz.
1 cloth coat	2	0
1 spare pair knickerbockers (drill)	1	10
1 spare pair shoes	1	0
1 great-coat	4	10
1 dhurri	4	14
1 razai	11	0
1 spare suit Native clothes	1	6
Total ...	26	8

These 6 lbs. 8 oz. extra to the scale were carried by means of the division orders quoted above anent great-coats and warm clothing.

But had these orders not been issued, the regiment would have been put to great straits to carry its baggage; and I consider that all the articles taken are necessary in any part of the Afghan hills

and valleys after 1st November. It may be objected—"Pack your poshtin and carry your great-coat." The reply is, that the saving is 6 oz., and the poshtin carries easier in the shoulder straps. It may be objected—"You have a heavy razai." It is true. The razai is good of its kind, and weighs 10 or 11 lbs. There are many objections to razais, but weight is not one. For the warmth they give (which is very great) razais are light. Two good *English* blankets weigh 10lbs. together, and they are not as good for warmth as a voluminous form-enfolding razai of 11 lbs. To equal such a razai in warmth, natives would require three blankets, and they would weigh from 12 to 15 lbs., according to quality. I consider that the kit for Afghanistan of native soldiery should be allowed to be 26 lbs. And then in the depth of winter or in high latitudes any extra warm clothing allowed should be reckoned as regards carriage in excess of the 26lbs.

The 1st Sikh Infantry weathered the cold of Dakka, Busawul, and Jellalabad in November, December, and up to the middle of January with the kit detailed above. Before this campaign I should have considered it ample for any cold below the snow line; but at Chardeh on 18th December 1878, and at Jellalabad between 21st December and the middle of January, I have often found the sentries shivering on their posts, though they were clad as follows:—

1 suit Native clothes.
1 cloth coat.
1 knickerbocker (drill).
1 poshtin over cloth coat.
1 great coat over poshtin.
1 turban on head.
1 pair shoes on feet.

In January was issued after several indents Kabul clothing, *viz.*,—

Jerseys.
Blankets.
Socks.
Gloves.

And latter on, waterproof sheets. The gloves are carried in the havresack.

One pair of socks is worn. The jersey is worn or carried in the shoulder straps; and hence with the baggage are carried—

	lbs.	oz.
The blankets	6	0
The waterproof sheet	4	14
One pair socks	0	4
Total ...	11	2

Hence at Jellalabad after the middle of January the carried winter kit of the 1st Sikh Infantry was—

	lbs.	oz.
Previous regimental kit, as carried with baggage	26	8
Kabul clothing, as carried with baggage	11	2
Total ...	37	10

This was exclusive of the gloves, 1 pair socks, poshtin, jersey, all of which the men carried on the march.

I again say 26 lbs. for Kabul kit exclusive of extra winter clothing.

B.—Cooking utensils.

160 lbs. per company.

This gives at 2 lbs. per man, a company of 80 men, or 640 men, all told for a regiment.

I would say 180 lbs. per company, or at 2 lbs. per man, companies of 90 men, or 720 men for a regiment, which is not a high figure for augmented regiments, whose whole total, exclusive of 16 Native officers, is 896 men of all ranks.

C.—Medical stores.

One camel and one mule, as far as I have had experience, seem sufficient.

D.—Veterinary stores.

Corps, like those of the Punjab frontier force and the pioneer corps, which have cattle always attached to them, should be allowed for veterinary stores, petty stores, and articles for repair required by their cattle establishments two mules per regiment. They should have these, as a special charge is attached to these regiments.

E.—Followers.

They should be allowed 12 lbs. of baggage and carried extra for winter clothing: 10lbs. is just too little.

F.—Offices.

Eighty pounds. As far as I know, this is enough for campaigning. But much depends on the amount of office work demanded by Brigade and Divisional Head-Quarters, by army and Government.

head-quarters, and by the pay, audit, clothing, ordnance, and other departments who have their seats at the Arsenals, Circle Offices, and Presidency. If they require work to be carried on as in peaceful comfortable cantonment life, 80 lbs. is rather a short allowance for the papers, envelopes, office books, books of reference, and returns which the system necessitates. As time goes on, it is to be noticed that arrears of books and returns accumulate, which cannot be got rid of for some time, as numerous references keep coming to transactions recently passed.

G.—Carriage of tools.

1 camel for bill-hooks and felling-axes.

	lbs.
A felling-axe weighs	8
A bill-hook	2
16 felling-axes	128
195 bill-hooks, *i. e.*, the allowance at 30 per cent. for 650 men, which is a weakish corps	390
Total ...	518 for 650 men.

This is over a camel-load, which is 400 lbs. Hence for these tools, if they are maintained at the present Kabul scale, two camels or 4 mules should be allowed.

H.—Regimental mochi.

Like as for the armourer, a mule should be allowed for the mochi. He is required for the belts and for the shoes, and has to carry tool, thread, wax, and some leather. It is not fair to place his things among the 800 lbs., or 2½ camel-loads allowed for quartermaster's stores. This allotment is fully taken up.

I.—Treasure.

Every regiment has need of a little ready cash in hand. And regiments which have cattle attached to them, and which have often to advance money for gear, repairs, and for food, require ready money still more. Hence a mule should be allowed per native regiment for a small pair of mule treasure boxes. I consider this absolutely necessary, as with the greatest care and foresight sums accumulate for a short time from each issue of pay, and at other times small necessities arise for the expenditure of small sums of cash which are often not attainable at a moment's notice from the Commissariat or Treasure Departments.

IV.—Followers.

I consider those entered in the scale satisfactory, with the following exceptions.

A.—Lascars or khallasies.

At least 4 per infantry regiment should be sanctioned. They are most useful in looking after the ammunition, quartermaster's stores, and tents. They understand stacking goods and packing of tents better than the men, and they are accustomed to the magazine nomenclature. On the march and in action they are handy with the ammunition, and they are useful with the camels and mules.

B.—Jemadars or duffadars of squads of muleteers and camelmen.

Where all is so carefully laid down, these should not be excluded. As in the case of kahar's mates, the words should be added "exclusive of jemadars and duffadars" after the entries of muleteers and camelmen.

C.—Puckalies.

One puckali per 80 followers should be allowed, besides the puckalies and bhisties allowed for companies.

D.—Sweepers.

One sweeper per 150 followers should be allowed, besides the sweeper per company sanctioned for the troops.

E.—Muleteers and camelmen.

I think one camelman to five camels is quite enough for camels, but I consider that it is more serviceable to have one muleteer to every two mules or ponies. I would strongly advise a reduction in the number of camelmen and an increase of one man to two mules to the muleteers.

F.—Doolies.

I can never understand the allotment of doolies to British troops only. Both British and Native troops should have both doolies and dandies. The doolie is meant to carry sick and wounded men in a plain country and along valleys and nullahs. Doolies receive the wounded brought off the hillside or hilltop in dandies. Native infantry regiments should have one doolie per company, or eight doolies per regiment. Each doolie should have six bearers. I do not think more than six *real* bearers are necessary, *i.e.*, six good men of the races whose trade it is to carry doolies.

G.—Dandies.

I recommend four doolies per cent. to be always with the corps. With 700 men there would be 28 dandies. Every dandie should have six bearers. It is an utter mistake to give only four bearers. Even four good kahars cannot carry a soldier any distance well, even on good ground; and it is to be remembered that dandies have to follow the attacking troops over all ground traversable by the troops. Certainly have at least six men to each dandie. Every dandie and doolie should have a water-bottle or *chághal* to carry water for the sick or wounded occupant

II.—Writer (English).

Whatever are the capabilities of supplying English writers in Bombay, Madras, and Hindustan corps, such capabilities do not exist in Punjabi corps. A writer for the English office is absolutely necessary, and he should be sanctioned for all corps whose opportunities do not allow of their employing soldiers as clerks in the English office.

I.—Munshi.

The Persian writer, who is a paid Government servant, should be sanctioned under his own name. In any campaign which is more than a mere outing, the men, who in the Bengal army are largely owners of land and property, have many cases in the courts. Doubtless there are men in every corps who can write Urdu, but they are not trained in the language and ways of the civil courts and offices, and it is good that the regular Government servant employed for this work should be present with the corps. Business goes on, though the soldiery are on service, and when they are absent on behalf of Government, it is fitting that the man who reads and writes the letters received and sent by the commanding officer on behalf of his men should on all ordinary field service be present with the corps.

V.

In conclusion, I think an allowance of hospital tentage should be made for the permanent mustered followers of the corps, who, as well as the soldiery, are treated in the regimental hospitals, and are not sent to the field hospital. It should be calculated in the same way as is that for the soldiery.

VI.

Kajawahs (camel) should be allowed for the conveyance of the sick to the rear, and also on the line of march for such men as get temporarily knocked up or footsore. Five pairs of camel kajawahs per regiment is the Government allowance. Besides, on the line of march these kajawahs are most useful for sick convoys in the cases of such men as are convalescent or not so ill as to require to lie down all the march. I have noticed all the points which have ever struck me.

P. S.—I may add that the *ordnance* kajawahs for tools supplied to the 1st Sikh Infantry are too wide for the largest Government saddle used on the largest baggage mule of the regiment. If used on any ordinary baggage-mule, they will gall its sides.

Memorandum by MAJOR J. W. MCQUEEN, *Commanding 5th Regiment, Punjab Infantry, on Army Organization.*

Peace strength of 600 privates per regiment insufficient for war service.

For about	10	per cent.	would be recruits	... ...	... = 60
„	2	„	short of strength	... ...	... = 12
„	10	„	sick	... ...	... = 60
„	4	„	old men fit only for invalids	...	... = 24
				Total	... 156

Should a depôt be formed for extra recruits add—

A drill staff of 5 non-commissioned officers and 20 men.
Recruiting parties 5 „ „ 20 „

making on an average nearly 200 men out of six hundred not available for service at the commencement of a campaign. Leave and furlough men are reckoned as having rejoined.

Raising to a war strength of 800 by recruiting and calling for volunteers very unsatisfactory. Taking volunteers from other regiments renders those corps temporarily unfit for active service, when at any moment their services might be required in the field. By having to recruit up to war strength deprives the regiment in the first place of many of the best men employed on recruiting duty, and and secondly, a large drill staff under a European officer to train and teach them. And thus for months, when their services are particularly required in the field, they are lost to their regiments.

No recruits can be satisfactorily trained to join the ranks under six months, and in the meanwhile the occasion for their services may have passed away; for in these days wars are generally short and decisive. Young soldiers, it is well known, are not the best men to stand the fatigues and hardships of a campaign, fill our hospitals and have at first so much to learn that they are often more of an encumbrance in the field than otherwise. It is therefore necessary to look to some other method of raising a regiment to a war footing, and this might possibly be managed by having a reserve of old soldiers, bound by a retaining fee to be called out at any moment to serve in the ranks.

Proposed scheme of a reserve.

1. All soldiers of a good character, and physically fit, to be allowed to volunteer between 5 and 12 years' service for the reserve.

2. To serve in it while physically fit for seven years.

Note.—The age of the men of the reserve would then average from five and twenty to seven and thirty,—men in the very prime of life, capable of enduring all hardships, who have all been thoroughly trained soldiers, and amongst whom probably very many who have gained experience in the field.

Note 2.—My reasons for fixing on the periods of five and twelve years are—with reference to the first, that it prevents there being, in the first place, too many young soldiers in the ranks—encouraging young men to certainly serve on to that period, for the object of entering the reserve; and secondly, ensures only really thoroughly trained soldiers being passed into the reserve—which may be considered a matter of great importance.

With reference to the second period it prevents too old men ever being sent to the reserve; and secondly, just about that period it would attract very many old and excellent soldiers who have been disappointed in promotion and perhaps do not see their way to further advancement, and who would probably otherwise remain on for a pension.

3. The reserve men should be called out for one month's training in every year or for service in the field at home or abroad, whenever Government demanded their services.

Note.—Their services should be available for any regiment, though, should their old regiment be in the field, or being raised to war strength, they should have the option of joining it.

4. When on active service, to be placed on the same terms with the regular soldiers as regards pay, wound pensions and privileges.

5. The reserve men should get a retaining pay of Rs. 2 per mensem for sepoys and Rs. 3 for non-commissioned officers who elect to join before 12 years.

6. They should also get an allowance of Rs. 2 per annum for keeping up a suit of half mounting in serviceable condition.

7. Payment should be made once a year in arrears, when the reserve men are called out for training, which should be in the Punjab from about the 20th of January to 1st February for one month, for at this season agriculturists can be best spared from their fields.

8. On the reserve being mustered, the men should each receive Rs. 6, and the balance Rs. 18, as well as the Rs. 2 for half mounting, a day or two before breaking up.

9. Each man on joining the reserve should have a suit of plain khaki half mounting served out to him, and should be bound to show this, as well as a pair of stout native shoes, before receiving his Rs. 2.

10. With reference to the training of the men for a month, they should be put through squad and company drill, skirmishing, musketry, out-post, and guard duties.

As the men are all old and trained soldiers, 21 rounds of individual firing, 7 rounds at the ranges of 2, 4, and 6 hundred yards would be sufficient, also 50 rounds of blank ammunition per man for volley, independent firing and skirmishing.

11. Three great centres for the reserve would be ample for the Punjab. I don't enter into the question of centres for other parts of India.

The Punjab centres would be Rawal Pindi, Lahore and Umballa, as these are centres of the great recruiting grounds, and at the two first-named stations are arsenals, where the rifles of the reserve could be lodged, and stores, accoutrements, clothing, &c., kept up. Tents also would be available for the reserve men to live in when mustered for training. All those stations are on the line of rail, and at them are native regiments from whom the drill staff could in part be furnished, and any others required could readily be obtained from the regiments in the neighbouring stations.

12. There should be a permanent reserve officer at each of these centres, who should keep a list of the reserve men, their place of residence, and what regiment they had come from, pay the men when mustered, and keep up all requisite correspondence, both vernacular and English; for this he should be provided with an office establishment of an English writer and a munshi.

This officer should be a field officer of some standing, who has served for some years in a native regiment, and should be senior to all the officers sent from different corps and stations to assist him during the month's training of the reserve.

The number of officers required at that period would, of course, depend on the number of men likely to muster, and they should receive, in addition to their full pay, a staff allowance of Rs. 100 and free passes or *bonâ-fide* expenses incurred in travelling.

13. I am of opinion that within five or six years the reserve would be of the required strenth of 200 men per regiment; and as the men are only to be entertained for seven years, it would be easily kept up to the strength required.

14. No trans-border men should be allowed to join the reserve unless they have bought land and settled in British territory.

15. The reserve men should be granted free passes to and from their homes, and to make this popular, they and the members of their actual household should be excused all forced labour (bigar muaf).

16. Reserve men failing to muster at the appointed time and place to be struck off and on no account excused unless they can produce a certificate of sickness.

I believe serving in the reserve would in time become very popular, and would very materially help in reducing the great number of men who serve on for a pension.

Pension.

The pension list is year by year becoming a greater burden to the State, and no one knows except an officer who has served for many years in a native infantry regiment what a great number of men scheme and malinger to pass the invaliding boards, starving themselves so as to appear ill, weak and emaciated, and will work to obtain their object with dogged pertinacity and patience.

British officers who are put to great expense before joining the army, and who have to pay their way out to this country, have to serve 20 years, out of which 18 must be passed in India, a foreign country, before they are entitled to a pension. Yet natives of the country serving in the ranks, who are put to no expense, and are given free kits, become entitled to pensions after 15 years' service, should they be invalided on the score of ill-health, and, as I have before observed, numbers of them scheme for this pension, obtain it and are a burden to the State for years, though they are really often very hale and hearty men. At least they shortly after passing the board become so from the effects of their village air, comfortable pension and a life of peace and plenty.

No pension except wound pension should be given under 20 years' service.

From 20 to 25 any man becoming incapacitated for active service should be invalided and receive the usual pension, *viz.*:—

Non-commissioned officers	Rs. 7
Privates	„ 4

On completion of 25 years' service every non-commissioned officer and private should be pensioned off at a higher rate of pension:—

Non-commissioned officers ... ... Rs. 8
Privates ... ... „ 5

Native officers who have not to march like the rank and file heavily laden with arms and accoutrements and ammunition might be allowed, if physically fit, to serve on to 32 years, as at present, the present rules and rate of pension with reference to them holding good.

Any man becoming incapacitated for service before they had completed the 20 years entitling them to a pension, should be discharged with gratuities—

4 to 8 years' service, 3 months' pay.
12 „ 16 „ „ 6 „ „
16 „ 20 „ „ 12 „ „

A soldier in his 20th year of service being allowed the option of taking the gratuity or remaining on until completion of the year entitle him to pension.

What with the inducement to serve in the reserve, the period of service for pension being made 20 instead of 15 years, and liberal gratuities of from 9 to 12 months' pay for men of 12 and 16 years' service, and who are getting weak and unfit for hard work, would leave very few indeed serving on for a pension, and those would probably be the best and most deserving non-commissioned officers and a few privates and native officers, men who would richly deserve their reward obtained by right, on completion of a certain term of service, and not by scheming "pundra baras ka bemari" as it is sometimes called by the men themselves.

The Government pay for all ranks is liberal, but I would here advocate a staff pay of Re. 1 per mensem for the lance corporals, these men (there should be forty in each native infantry regiment) have just as responsible and difficult duties to perform as any other non-commissioned officers, and receive nothing beyond their pay as privates.

The native adjutant's writer should receive a small allowance of Rs. 2-8 per mensem, as he has a good deal of work to do, must always be present in barracks, and may be said never to be out of harness.

The present number of British officers (7) with native regiments may be considered ample for cantonments and the field, any vacancy, however, caused by death, furlough or transfer to another appointment should be at once filled up, no officer can be spared for a regimental depôt when the regiment takes the field.

I have, however, heard many officers advocate the necessity of having more British officers, and talking of the utter uselessness of native officers. Of course there are many useless men, and we find them in every walk of life, but in my experience I have seen also many most useful and excellent native officers thoroughly competent in commanding their companies in independent stations in the field.

Native officers generally are not to be blamed, it is the fault of the system, which does not sufficiently trust them, not making them use their own judgment more often, placing them in positions to do so, and teaching them to act fearlessly on their own judgment and responsibility; they are too often treated as if they were children, who must be told about every little thing they are to do.

Now it is those officers who do not know how very useful native officers are, and can be made, both in the field and in cantonment, but who always insist on having a British officer on every picket and on any little piece of work, that entail so much unnecessary work on the junior British officers with native regiments, and it is this that so often causes the cry to be made of heavy duty and paucity of officers. Native officers are now very well paid, and they should be men well qualified and fitted for their posts. There should be no hesitation in passing over good steady non-commissioned officers, excellent men in their way, but not fitted for promotion, to promote the best qualified and most fitted men in corps. All should understand there are no vested rights and that it is only the bravest, the most intelligent, and the best qualified by knowledge of their profession, and by tact and judgment, that can hope to bear Her Majesty's commission, and the higher the standard of excellence raised, and the more they are made responsible and trusted, the greater help they will be to their British officers in the field as elsewhere, and thus show that more British officers for native regiments are unnecessary.

With reference to question of class regiments and class companies, I think it would be a pity to have any more class corps than there are at present in the army.

Nothing, indeed, can be better than having the Gurkhas in class regiments, the Bheels and a few Sikh corps, but it would not do to have more of the latter, though they make of course splendid regiments, for they might become sources of weakness and danger in some moment of religious excitement, or in some political crisis. Besides that, it would never do to have regiments composed entirely of Pathans, or even of Mahomedans, whether of the Punjab or of Hindustan.

The happy medium is having most of the regiments with class companies of different creeds and races, counterbalancing each other as nearly as possible in each of the corps, but in a few allowing one class or other to predominate, so that these regiments could be used without hesitation against men of an opposite race.

Trans-border Pathans should not be enlisted without personal and money security, also more efficient arrangements should be made for capturing Pathan deserters than at present exists, for these men now visit British territory with perfect impunity whenever they choose.

J. W. McQUEEN, *Major,*
Commanding 5th Regiment, Punjab Infantry.

Dated Sheik Budin, 4th July 1879.

Demi-official from—Major C. J. GRIFFITHS, 3rd Sikh Infantry,

To—Major-General SIR F. ROBERTS, K.C.B., V.C., Commanding Koorum Force.

I beg to enclose you my notes on the idea of a reorganization of the native army. It is of course entirely in the rough; but I have held to the assumption that strength and efficiency for war with no

increased expenditure than at present should be the leading principles, and I asked Major Hawes, of the 4th Punjab Infantry, to help me with every objection to the scheme that his experience could suggest. We came to the opinion that his objections were successfully met *vivâ voce*. The only trenchant reduction is in the matter of commandant's pay; but I think that Rs. 400 a month is ample pay for the command, taking into consideration the many other advantages enjoyed, and hoping, too, perhaps, that it might be an advantage both to Government and others, in that the reduced pay might induce some commandants to retire before 38 years' service.

I have hardly gone into the subject of class regiments and this, both because the scheme necessitates class regiments and because the opinion is now almost unanimous that the present mixed regiments are a failure for the purposes for which originally instituted. I may have overstated the numbers of non-effectives, but I do not think by very much, if recruits and sickly men are considered.

I hope I am not late in sending you the accompanying; but I got a little put out in health and came up here.

Present cost of a Regiment of Native Infantry, excluding all but fighting men, per month.

		Rs. A.		Rs. A.
8	Subadars, average	90 0		720 0
	Subadar-Major	50 0		50 0
8	Jemandars, average	45 0		360 0
	Native Adjutant	17 8		17 8
40	Havildars	at 14 0		560 0
8	Color-Havildars	at 2 0		16 0
8	Pay Havildars	at 5 0		40 0
1	Musketry Havildar	at 5 0		5 0
40	Naiks	at 12 0		480 0
	Drill Havildar	at 5 0		5 0
	Drill Naick	at 2 8		2 8
1	Bugle Major	at 17 0		17 0
1	2nd „	at 15 0		15 0
14	Buglers, average	at 8 0		112 0
50	Sepoys (about)	at 10 0		500 0
150	Ditto („)	at 9 0		1,350 0
350	Ditto („)	at 8 0		2,800 0
250	Ditto („)	at 7 0		1,750 0
912	Men, costing	...	Total	8,800 0

This is the full nominal strength. During seven months of the year there are at least 200 men absent on leave of all sorts, and between 80 and 100 recruits, on account of men taking pension, taking discharge, proving unfit, dismissed from other causes.

The absentees and recruits are of course on full pay. During war, from stress of service and weather, it is hardly too much to say that there will necessarily be at least 400 who are either not present in the fighting line, or if present are more likely to hamper hospital arrangements than prove capable of arduous service, leaving a balance of 500 or 550 men thoroughly efficient, but costing Rs. 8,800 a month, as the fighting power.

As an alternative, the following scheme seems to obviate some of the difficulties :—

Three battalions to form a regiment, with a depôt for training and mobilization; this depôt being stationary in the recruiting district of the regiment.

Breech-loading arms having at the lowest computation doubled the power of a given body of men, the strength of each battalion in peace time might be reduced to—

		Rs.		Rs.
4	Subadars, average	90		360
	Subadar-Major	at 25		25
4	Jemadars, average	at 45		180
	Native Adjutant	at 15		15
20	Havildars	at 14		280
4	Pay Havildars	at 8		32
20	Naicks	at 12		240
8	Buglers	at 8		64
1	Musketry Havildar	at 20		20
400	Sepoys	at 8		3,200
20	Bandsmen, average	at 9		180
477	Men, costing	...	Total	4,596
			Cost as at present	8,800
			Balance	4,204

All men after three years' service and above the strength here given to be granted long furlough at the following rates of pay:—

		Rs. A.		Rs.
4	Subadars	at 30 0	...	120
4	Jemadars	at 15 0	...	60
20	Havildars	at 5 0	...	100
20	Naiks	at 3 8	...	70
8	Buglers	at 2 8	...	20
380	Sepoys	at 2 8	...	950
436	on long furlough, costing		...	1,320
		Original balance	...	4,204
		Balance ...	...	2,884

These furlough men proceed to their depôt, where their arms and accoutrements and necessaries are lodged, and they go to their homes under liability to be recalled—

1st.—Once a year on full pay for six weeks for training at depôt.
2nd.—In time of war.
3rd.—At any time when their services are required after being three years at home.

Not including immediate deaths, this will give 420 sepoys with colors and 380 at home; but as it would be advisable to have some further reserves, the depôt should enlist 220 more men for each battalion, who, after a year's training at the depôt, join their head-quarters for two more years, and on such joining relieve an equivalent number of men who go on furlough. This for each battalion gives—

400 sepoys for peace battalion;
400 sepoys additional for war;
200 sepoys waiting on peace footing till called up to supply vacancies.

For first increase 150 recruits would have to be enlisted; second year 100; third year and afterwards about 50. Average cost for the three first years would thus be—

	Rs.
100 recruits at Rs. 7 per month ...	700
Balance ...	2,884
Still in hand ...	2,184

The cost of the furlough men mobilized and trained for six weeks at the depôt would be—

		Rs.
4	Subadars ...	360
4	Jemadars ...	180
20	Havildars ...	280
20	Naicks ...	240
8	Buglers ...	64
About 450	Sepoys ...	3,600
	Increasing to Rs. 600 per month ...	4,724
		2,362
	For six weeks ...	7,086
	Deduct furlough pay for six weeks, about ...	1,986
	Per annum ...	5,100

With depôt as training staff for each battalion, and for custody of stores of furlough men—

		Rs.	Rs.	
1	Jemadar on	40 ...	40	
3	Havildars	at 18 ...	54	
3	Naicks	at 12 ...	36	
30	Sepoys	at 8 ...	240	
		Per month ...	370	
		Still due ...	2,184	
		Total ...	1,814 × 12 =	21,768
	From which deduct the six weeks' training ...		...	51,000
			Total ...	16,668

or a saving of Rs. 16,000 per year, which would probably be expended in giving completeness to the arrangements.

When this scheme got into thorough working order, which should occur in the second year, the effect would be to have three battalions each of 400 sepoys fit for and employed in any place in India when considered advisable, and always kept up to full strength by drafts from the depôt.

Each battalion would have 400 sepoys living at their homes round the depôt centre, and all of whom are healthy and fit for their place in the fighting line.

Each battalion would have a further strength of 200 sepoys, consisting of men under a year's service and men who are about to pass out of the service by superannuation, but still perfectly fit to be sent for duty to their battalion if wanted.

It is thought probable that of the three battalions, two only would be actively employed, one remaining in garrison. If so, the garrion battalion might be raised to 500 sepoys, the remaining 300 sepoys being available for reinforcing the other two battalions in the event of prolonged service or very serious losses.

Men on attaining a total of 25 years' service to be placed on pension list, that is, to get their furlough pay, but with no further liability for service of any sort, and their places at once filled up by recruits.

Each man under this scheme would have to do three years with the colors (including the first at the depôt), and three years again some time between his sixth and tenth year of service. This cannot immediately be computed; but it seems probable that he will have no more than two turns with the colors. The idea is that if a man enlist originally when he is 17, and has in all only six years of sentry duty, he will still be a hardy well-set man up to 42 years of age, when he is superannuated.

The depôt would be a training school for recruits and a training school for the furlough men.

About the 15th November of each year after the sowings are done, the men of the first battalion might be mobilized till the 31st December, when the second battalion men come in, remaining till 15th February. The three battalions in this way are finished by the 31st of March, and all are free to gather the harvest.

Twice in each year the officers commanding battalions indent on the depôt officer for the number to complete their vacancies, when the number, composed partly of trained recruits and partly of men who wish to put in a second term of service, will be sent. There need be no furlough given and leave restricted to a few men only upon whom a serious unexpected call might be made. Civil suits against men during their actual three years' service might be put off, or, if impossible, his case might be treated a casualty; men going on sick furlough would be treated as casualties.

No women or children except bandsmen's wives to be allowed at head-quarters. This long furlough with small pay would be considered, I am quite confident, a popular measure. Rupees 2-8 for a sepoy seems a very small sum, but in reality it means that the sum pays the land tax with the easy condition of three years' service on full pay, then about four years at home, with three more only left.

The whole question of enlistments turns on this monthly payment. If it is raised to Rs. 4 per month, I think every man in a village, fit to serve, would try and do so; at Rs. 2-8 per month I think there are a few very well-to-do men only who would not offer themselves for enlistments, and voluntary retirements would be rare.

Regiments under this scheme must of course be class regiments, a measure in any case most desirable in itself. The depôts could be easily located at stations where there are already European troops.

It seems an actual necessity that the percentage of European officers to men should be larger than holds at present; but if an increased number from motives of economy is not feasible, the regiments as above constituted might have the following officers with pay as under—

The present pay of officers and members are as follow :—

			Rs.
1 Commandant	Staff	...	600
1 2nd-in-Command	„	...	270
1 Wing Commander	„	...	230
1 Adjutant	„	...	200
1 Quartermaster	„	...	150
1 Wing Officer	„	...	100
1 „	„	...	100
	Staff	Total ...	1,650

For new regiment it might be—

1 Commandant	Staff	...	400
1 2nd-in-Command	„	...	250
1 Adjutant	„	...	200
1 Wing Officer	„	...	100
	Staff	Total ...	950

And at the depôt of the three battalions there might be—

			Rs.
1 Commandant	Staff	...	400
1 2nd-in-Command	„	...	300
1 Adjutant	„	...	250
3 Captains	„	...	450
3 Subalterns	„	...	300
	Staff	Total ...	1,700

x 2

There would thus be 21 officers as at present, 12 of whom would be always present at their respective head-quarters and 9 at the depôt, all furlough reducing the strength of the depôt only. The pay would be in the aggregate—

		Rs.
Old scale	1,650 × 3 =	4,950
New scale	950 × 3 =	2,850
Depôt	... ...	1,700
	Total	4,550
	A saving of per month, Total	400

In the event of war, the depôt after mobilization could be reduced to two officers, and the third battalion to three officers, which after recalling officers from furlough would leave eight officers for service with the two other battalions.

The officer commanding the depôt should be the smartest of the three seconds-in-command, as on him and on his 2nd-in-command would depend in a great measure the efficiency of the regiment.

There are many minor points in the above which have necessarily been omitted, more especially the non-combatants. Numerous reductions could be made in this class, which would effect a further saving without any loss of efficiency to regiments as a fighting power but the 20,000. A year's saving, as already shewn per battalion, would be in great part profitably expended in maturing the plan to its completion, or in making an addition to the number of European officers.

Dated Kohat, 13th July 1879.

Demi-official from—Major J. C. Stewart, 5th Punjab Cavalry,

To—Major-General Sir F. Roberts, K.C.B., V.C., Commanding Koorum Force.

Major Hammond will have answered all the statistical part of your letter, and I will therefore confine myself to express the opinion you have been good enough to ask from me as to how trained men can be brought into the ranks when a regiment is ordered on service, so as to bring it up to a war footing with the least possible delay.

2. The reserve system is, in my opinion, the only one to meet the question, and would, I am sure, be most popular with the men generally, and especially with the Pathans.

3. Each cavalry regiment should, I think, have a reserve of 100 men, to be raised in the first instance, as far as possible, by volunteers of over five and under nine years' service. Subsequently, recruits should be enlisted for five years' service with the regiment, with the option at the end of that time of re-engaging for a further period of five years with the regiment, or going to the reserve for five years, and at the end of that time, if still physically fit, re-engaging for a second such period with the reserve.

Reserve.

4. The pay of the reserve I would put down at Rs. 3 per mensem, as I don't think anything below that would be a sufficient inducement for men to enter it.

5. The reserves of all regiments should, I think, assemble yearly for at least one month's training with their own regiments when practicable; but, where these were too distant, they might be attached to the regiment stationed nearest their homes, and a staff allowance of Rs. 1,000 per mensem be given to the officers of those regiments appointed to act as adjutants of reserves.

Training.

6 All drills would necessarily have to be carried out on foot; but I don't think this a matter of much consequence, as the object would be to keep the men acquainted with their drill, and this could be effected quite as easily on foot as on horseback. Once a rider always a rider, in my opinion, as long as a man is physically sound; and, when war broke out, as long as a man knew his drill he would always be found otherwise efficient and fit to take the field at once.

Training.

7. Arms for the reserve force would have to be kept up in arsenals, and issued on indent for the period of training and when called out.

Reserve arms.

8. In the event of war, the reserve horses and ponies would inevitably have to be purchased in the open market; but it would materially accelerate matters if the saddlery and tents were made procurable from the Government manufactories.

Purchase of saddlery.

9. When the reserves are called out, Government must be prepared to make large advances to the men, for it is not to be expected that any part of the money the men take away from the regiment will be forthcoming on their return to it; and I consider that Rs. 300 is the least sum with which a sowar could re-equip himself. For example—

Advances.

	Rs.
Chunda price of horse	200
Accoutrements	30
Share of tent	10
Share of tattoo	25
Uniform, stable gear, &c.	50
Total ...	315

Refund of advance.

10. A large portion of this sum could no doubt be repaid at the end of the war by the absorption of the horses and ponies and part of the saddlery, &c., in the regiment; but I anticipate that a great deal of the latter would still remain undisposed of, and it is a question whether Government would be prepared to forego the loss that would be entailed by selling these by auction, or whether it would be better to return them into store for some future occasion.

Dated Murree, the 29th July 1879.

Demi-official from—Major F. J. KEEN, Commandant, 1st Punjab Infantry,

To—The General Officer Commanding Kuram Field Force.

I received your letter of the 5th a few days ago, and I have been thinking over its contents. I enclose a statement giving the information required.

The recruits.—I cannot say I think they are of the average stamp, especially the Sikhs and Dogras. I have discharged eight and have marked a lot more for discharge when I can fill their places. I think the regiment was under peculiar disadvantages in being at Quetta when the augmentation took place; there were no officers or men at the depôt to send on recruiting duty.

The reserve.—This is a difficult question and one I cannot say I have thought much about. No doubt something is required to meet the casualties that occur on active service. I feel I am not competent to devise a system; I would sooner give an opinion on one. I think the shortest service in the ranks should be eight years,—I am not alluding to the man who takes his discharge after three years of his own free will, but the man whose services you want to retain in the reserve. Could not the pension rules be altered so as to partly meet the requirement? The present ones put a premium on malingering.

Officers.—I think seven officers (not including the medical officer) *quite* sufficient for both peace and war, *provided that number is always with the regiment.* An officer going home or to another appointment should have his place immediately filled up. On service I do not think enough is made of the native officer; my opinion a British officer should not be sent in command of small detachments, as is *very* frequently the case. In my small experience I have found native officers do extremely well on these occasions, and I made it a rule to employ them extensively on the march *viâ* Thul Chotiali, and the result was very satisfactory. No officer could have done better than Subadar Faiztullab on the occasion you allude to, and I am very pleased Government have so well rewarded him. Thank you for your contragulations on the behaviour of the regiment. I am indeed glad they had the opportunity.

Casualty Roll since leaving Quetta en route *for Kandahar—22nd November 1878 to 16th May 1879.*

DETAIL.	British officers.	Subadars.	Jemadars.	Havildars.	Naiks.	Lance Naiks.	Buglers.	Sepoys.	Total.	REMARKS.
Killed	..	...	...	...	...	...	...	5	5	
Died	...	1	...	5	3	3	1	54	67	
Deserted	...	...	...	1	...	1	...	15	17	
Invalided	...	1	...	3	4	...	...	7	15	From depôt.
Discharged	...	...	...	...	...	...	1	9	10	

T. C. PEARS, *Lieut.*,
Adjutant, 1st Punjab Infantry.

T. HIGGINSON, *Major*,
Offg. Commandant, 1st Punjab Infantry.

1st Punjab Infantry.

DETAIL.	British officers.	Subadars.	Jemadars.	Havildars.	Naiks.	Lance Naiks.	Buglers.	Sepoys.	Grand total of Native rank.	REMARKS.
Marching out strength on leaving Quetta, 22nd November 1878	6	6	8	29	33	25	14	520	635*	Exclusive of 31 volunteers from other regiments, who joined later.
Left sick at Quetta	...	...	...	7	5	5	...	22	39	
Left at depôt, Dera Ghazi Khan ...	...	1	...	2	1	...	...	13	17	
Wanting to complete establishment ...	...	....	...	2	1	1	2	41	47	Taken as 640 sepoys.
Marching in strength on reaching Dera Ghazi Khan, 16th May 1879 ...	7	5	5	30	30	27	9	391	497*	
Sick present	.	...	...	1	2	...	1	24	28	
At depôt, Dera Ghazi Khan ...	...	...	1	5	7	3	2	120	138*	
Men sent from head-quarters *viâ* Bolan, being too weakly to march with the regiment *viâ* Thull Chotiali .	...	1	...	1	3	2	1	72	80	
Casualties since leaving Quetta, *vide* attached statement	...	2	...	9	7	4	2	90	114	
Wanting to complete establishment ...	...	1	...	3	...	. .	4	15	23	Taken as 640 sepoys.
Number of recruits enlisted, 1878-79 ...			One	hundred and	Eight.	fifty nine	...	...	...	The whole of the recruits will probably not be joined before the end of the year.
Number of recruits rejected .					*Nil.*					
Number joined the ranks										

* Includes recruits.

T. C. PEARS, *Lieut.*,
Adjutant, 1st Punjab Infantry.

T. HIGGINSON, *Major*,
Offg. Commandant, 1st Punjab Infantry.

Dated Camp Thull, 10th July 1879.

Demi-official from—Major F. HAMMOND, 5th Punjab Cavalry,

To—The General Officer Commanding, Kuram Field Force.

* * * * * * * *

Reserve.

A reserve is much wanted to give a rapid increase of trained men to regiments when required. The present time is very suitable for its formation: many soldiers are anxious to go to their homes, and would be glad to enter a reserve.

When last the Indian army was reduced, I know that very great dissatisfaction was felt by men being discharged with gratuity. Men in many cases joined regiments after selling their land and bullocks in order to bring the required price for their "assamee," and it was a great hardship when they found themselves after a very short time thrown on the world with only a gratuity in their pockets and their means of livelihood gone.

Formation.—A reserve might be formed equal to a full troop of seventy or eighty men, allowed to remain at their homes with a certificate, drawing an allowance from the nearest Deputy Commissioner. The amount to be drawn half-yearly by the commanding officer and remitted to the Deputy Commissioner.

Constitution.—To consist of men who have served from 8 to 11 years in the regiment, chosen by the commanding officer, men of good health and physique, and likely to be fit for future service. The certificate to be signed by the medical officer.

Pay.—Reserve pay to be Rs. 2 per mensem, and to be paid half-yearly.

Not to be called out.—I would not ever call out this reserve. They would be quite ready for service in a month's time with the regiment.

Vacancies.—Vacancies to be filled up by the commanding officer,—nominal roll being kept in regimental office.

Rank.—I would allow young non-commissioned officers to join this list, but only as sowars. The non-commissioned officers required would be better filled by men from the active regimental employ.

Report.—All reserve men to report themselves half-yearly to the Deputy Commissioner, and to present their certificates and draw their pay personally.

Pension.

Period on list.—No man to serve on the reserve for longer than 14 to 17 years, so that their age should not average over 45 years, after which they should be placed on a pension list and receive 1 rupee per month free of all liability.

Arms.—Carbines are of course provided by Government, and buckets should be added free of charge.

Accoutrements.—To be provided for out of an advance which is mentioned below.'

In every regiment there are a number of men unfit for duty, and their accoutrements and saddlery could be utilized until the fresh supply arrives.

Mobilization.—When required, these men would be summoned through district officers, who should be able to grant them free passes on the railway.

Advances.—When they enter the reserve, they take away from the regiment the full value of their horses and equipment, and would not bring it back; therefore, when mobilized, Government should allow an advance of Rs. 300 per reserve man to be drawn as required by commanding officers, to be expended solely on the remounts, ponies, and equipment of the reserve.

When the reserve is disembodied, as many as possible of the horses and equipment should be absorbed in the regiment, to replace what is old and worn out, and the price credited to Government.

Rate.—The price of the horses so absorbed to be calculated at the same rate that Government allows for horses killed in action, &c., *i. e.*, a reduction in value of 7 per cent. per annum. Any equipment so utilized to be valued by a committee, the remainder to be sold by auction.

Repayment of advance.—By this means a large proportion of the Government advances would be repaid.

I believe the reserve would be most popular with the Sikhs, more so than with other classes, as they are a saving race, and in 8 to 11 years' service have generally gathered some money together.

In the Punjab Cavalry the furlough rules are, I think, too liberal. One troop, *i. e.*, 1-6th, is always absent, and although without liberal furlough it would have been more difficult to get men as willing to serve on the frontier, the present rule is too good. Before the Jowaki disturbance and the Cabul war a man's turn for furlough came round in from 22 to 24 months, and I think that a turn once in three years would be amply sufficient, better for the men and advantageous for the regiment.

Recruiting Native Army.

No. 3A., dated Dharmsala, 20th May 1879.

From—COL. R. SALE HILL, Comdg. 1st Goorkhas Light Infantry,

To—The Adjutant General in India.

In reply to your No. 1305B., dated 9th May 1879, I have the honor herewith to submit my ideas as to Goorkha-recruiting generally, both as to the system which now obtains and as to that which should be adopted.

As I have been directed to freely express my opinion, I trust I may be pardoned should any opinion or suggestion I have noted be considered inappropriate.

1. Classes to be enlisted in Goorkha regiments.

I. I consider that Goorkha battalions should be maintained almost entirely from the "Magar" and "Gurung" classes; and that the more pure a regiment is in this respect, the more efficient it is likely to be for active service and in trustworthiness to the State.

It is stated in paragraph 3 of your letter under consideration that—

Brahmins,	Magars,
Khus,	Gurungs,
Thakurs,	and
Khawas,	Newars

are now admitted into the service; but I was not aware that Brahmins are now entertained in any regiments, though the other classes are.

I append, marked A (*infra*), an extract from my regimental Standing Orders, showing the classes that should be enlisted, together with some of the reasons for the distinctions made; and, for further illustration of my ideas, refer you to my paper on Goorkhas, printed, by desire of the Adjutant General of the Army in March 1874, and circulated to Goorkha regiments with No. 1135B., Adjutant General's Office, 11th May 1874; and this paper was approved of by all the officers of experience in the Goorkha force.

Further experience gained in the various expeditions in which Goorkha regiments have engaged since the paper was written has confirmed my views on these points.

Brahmins should on no account be permitted to enter Goorkha regiments; and in the enlistment of 10 per cent. "Khus," &c., *vide* A, the "Khuttrie" class should be avoided as much as possible.

Goorkha Khuttries are the offspring of an Upadhia Brahmin with a widow, and are, as far as caste prejudices and observances go, as bigoted, and often more so, than Brahmins themselves.

One of the great advantages of the Goorkha, as a soldier, is his freedom from these prejudices; and I would observe that during late years, and since the gradual diminution of the caste races in the ranks, the men have shaken off many little prejudices regarding water, cooked food, &c., which they were much imbued with before under the influence and example of the caste men who abounded in the regiment. This is much to the benefit of the mobility of the corps.

II. Standard and age.

II. With regard to paragraph 4 of your letter, it is very difficult to lay down a standard for height and age. The latter is very difficult to tell, and under present circumstances it is inconvenient to be too particular. The rules given in A are suitable enough at present, but I consider, with improved recruiting opportunities, the standard might be greatly raised. We got much finer men of the Magar and Gurung classes before the mutiny, when recruiting parties were allowed to enter Nepal and pick their men.

III. Recruiting.

III. (1). Goorkhas enlisted in our regiments are all from the agricultural classes. The Sullean district furnishes most of the Magars, and Lumjhun, the Gurungs, but these classes are also scattered over Tumnoon, Kaskie, Sokri, Goolmee, Karchi, and numerous villages. Great obstruction is placed in the way of men wishing to enlist, and they have to sneak over the border to do so, or our recruiting parties have to act in a similar manner.

(2). I gather from native sources in my regiment, though I cannot of course vouch for the accuracy of the statements made, "that the Nepal Government have quite recently instituted a sort of census of population in villages, placing tickets on each house to denote names and number of residents, and instructed village authorities with a view to preventing any of the inhabitants leaving the country without permission."

Should this be the case, I need not point out that we shall find it more difficult than ever to obtain recruits on the old system; and the one of procuring them through the Nepal Durbar cannot, I venture to say, have proved a success.

Defect in recent arrangements made to procure recruits through Nepal Durbar.

(3). The men collected were of a mixed and inferior description; and, independently of the fact that the majority were not of the class we enlist, many of them were old and quite unfit for service.

Out of 54 men told off for my regiment, no less than 31 were rejected by the authorities of Goruckpore; and of the 23 who arrived at Dharmsala, I was compelled to reject 10 as utterly unlikely to become efficient soldiers. Only 13 were therefore entertained, and only about half of these are really good men.

These recruits state they were kept a long time in Nepal on Rs. 7 a month, which must have entailed great expense on the State. One man who came to my regiment was a voluntary substitute for his father, who had been told off, and who, he states, he was allowed to come instead of, his father being infirm and quite deaf.

(4). I am therefore strongly of opinion that, if the Nepal Durbar are allowed to send us recruits we will never get either the class we want

or a satisfactory lot, and great expense will be constantly entailed on the State by their periodical rejection.

Ordinary method of recruiting.

(5). Our present system of recruiting obtains sufficient men to fill up ordinary vacancies, but does not provide for sudden augmentations on account of field service, and is susceptible of no expansion.

IV. Mode of recruiting suggested.

IV. I have no doubt whatever that to enlist men with the full consent and cordial support of the Nepal Government is the proper course to pursue, and would afford us an adequate supply and a superior physique of the classes required, if worked on a proper and recognized system.

(1). Obtain the assent of the Nepal Durbar for, say, two agents, resident in Nepal itself, to be employed to enlist men for our service and send them to us at Goruckpore. Let a small party from each Goorkha battalion attend at a stated time each year at Goruckpore to take over the men for their respective corps.

The recruits to be told off by Station Staff Officer, Goruckpore, to each regiment impartially and according to requirements, and their desptach be superintended by a British officer, who might be detailed from one of the Goorkha regiments each year for the duty, and to see that the men were of the proper standard, class, and physique.

(2). The agents in Nepal to be pensioned commissioned native officers selected for their known probity, intelligence, special knowledge, and trustworthiness, and to be given a small salary in addition to the pensions they enjoy for the important duty they will have to perform.

Two agents would, I think, suffice. One could collect recruits at Reri Ghat near Palpa, and the other at Bene Bagloum, north of Reri.

Four pensioned non-commissioned officers or sepoys to be selected—two by each of these agents, to assist them in their work, and to take the parties of men entertained to Goruckpore: these men would also receive a small sum as remuneration in addition to their pensions.

(3). I am of opinion that from 300 to 400 recruits of the Magar and Gurung classes of superior physique could be easily obtained annually, if the system was carried out in its integrity, and if the concurrence of the Nepal Government afforded the agents a fair and unrestricted field for voluntary enlistment in the country.

Alternative plan: recruiting depôt.

(4). I submit that the only alternative plan to this is to establish a recruiting depot at Goruckpore superintended by a British officer of a Goorkha regiment thoroughly acquainted with the men, and supported by an efficient staff, and with permission to enlist 400 or 500 men to be considered as a reserve battalion to the Goorkha brigade, and to be drafted to it as required, and so as to be in a position to put it on a war footing in any emergency.

With regard to paragraph 4 of your letter, the four stations which would probably be found most convenient for concentration would be Goruckpore, Seetapore, Shahjehanpore, and Fyzabad; but the first-named is, I consider, for all practical purposes, the one to be selected.

Comparison.

(5). I, however, am of opinion that the plans I have sketched in paragraphs 1, 2, 3 possess, if feasible, the following advantages—

(*a*) a wider and better field for recruiting;
(*b*) a selection on the spot of the men needed by an officer thoroughly acquainted with the classes and castes required;
(*c*) a certain diminution of rejections of men presenting themselves for enlistment;
(*d*) a trifling expenditure in comparison with what the support of a depôt would entail.

(6). With regard to the important point of the agents, I consider there would be little difficulty experienced should the scheme be considered feasible and meet with approval, and that the appointment of agent would be much sought after and increase the popularity of the service.

The subadar-major of my regiment just pensioned after 44 years' service (Runbeer Karkie, *Sirdar Bahadur*), is a hale and hearty man, and eminently qualified in every respect for the post. His home is at Goolmee; and with regard to all the points I have noted in this letter as imperative, I could not think of any one more thoroughly fitted for the purpose from his great experience of recruiting and reliable character.

I have also heard of another man who would suit, though I am not personally acquainted with him, resident at Palpa, pensioned Subadar Bulbhuddur Rai, late 5th Goorkhas, and doubtless the officers commanding Goorkha regiments could bring to notice men suited for the work. In conclusion, I would remark that, if the Nepal Durbar supply us with recruits similar to those lately received, we shall either have to reject them at an expense to the State, or flood our ranks with a class of men that will deteriorate Goorkha regiments.

A

Extract Regimental Standing Orders, 1st Goorkhas (Light Infantry).

4. Recruiting and enlistment.

Caste.—To be *bonâ fide* Goorkhas of the Magar or Gurung classes. The Khus and Thakur classes may be entertained sparingly, but never in proportion of more than one in ten, and then only of exceptional physique, or on account of strong family claims; and when the Magar and Gurung classes are not available,—

Line boys in the same proportion and under the same conditions may be entertained.

Every consideration should be shown to the sons of men who have served and died in the regiment, and every case will be considered on its own merits, but the candidates must be up to the regimental standard.

Not to be listed.

Natives of Ghurwal, Kumaon, Dhoteal, Sirmoor, Baghat, Mandhi, or other hill states are on no account to be entertained.

Newars, being the aborigines of Nepal and a non-military class, are not to be entertained.

Demaies are on no account to be enlisted in the ranks, being from their social position unfit for promotion. Being good musicians, they should, however, be freely enlisted as bandsmen.

Sarkies and Lohars, according to regimental requirements, should be entertained under the 10-year contract; but on enlistment should be given to understand that they will not receive promotion to the non-commissioned grades.

Regimental standard—

Age from	...	...	...	18 to 23
Height from	...	...	...	5′ 3″

number according to requirements.

The Standing Orders of the army give full information as to mode of recruiting.

The regimental recruiting parties should invariably consist of men of the Magar and Gurung class.

Note.—"Sarkies" are shoemakers; "lohars," blacksmiths; also *vide* Notes on Goorkhas, pp. 6, 7, 8, 9.

DHARMSALA; *The 17th May 1879.*

R. SALE HILL, *Colonel,*
Commanding 1st Goorkhas
(Light Infantry).

Views of COLONEL T. W. R. BOISRAGON, *Commanding 30th Punjab Native Infantry, on Musketry.*

The first duty of a soldier after learning to *obey* is to learn to *shoot*, and he must do his *best* in *that* as well as in all his other drills and duties. If he *don't* shoot from indifference and carelessness or wilfully wastes his ammunition, he should *be punished*. If he *can't* shoot, after every care has been bestowed on his instruction, he had best be got rid of.

Giving money prizes to the extent now given for very average shooting and for judging distance, and to the non-commissioned officer reported "the best instructor," is a mistake and a waste. Encourage good shooting by all means, by giving power to commanding officers to grant certain indulgences, such as short extra leave, or even a month added to a man's furlough for good shooting, and let Government offer, say, Rs. 100 *per regiment* to be divided among the ten best shots, provided they make a really good score (say an average of centres) throughout their annual course. If only *one* man qualifies, let him have the whole Rs. 100.

Give to *commanding officers* power to make any man, after he has once been thoroughly and efficiently trained, pay for every round of his ammunition that he wilfully throws away by carelessness at the range, and he will soon pay attention to his shooting.

It is not an uncommon thing, though of course impossible to *prove*, for men, who owe their native officers or non-commissioned officers a grudge, to wilfully spoil the average of the company and prevent its becoming the best shooting company in the regiment.

Regimental, company, class and other *matches* afford native soldiers plenty of amusement, excitement and *inducement* to *shoot their best*, as each man puts in a small sum (4 annas or so) and *therefore* shoots his best to save his *own* money. Pool shooting also, where every man puts in only 1 anna and is paid *4 annas* for every bull's eye he makes.

All these matches produce far better shooting than is obtained in the annual course. The men enjoy it, take an interest in it, and win and lose their money *on the spot*. Ammunition is supplied to them at 2½ annas for every 10 rounds, the difference to Government being paid out of the Regimental Rifle Fund.

I mention this detail to shew that there is no need—*if commanding officers have sufficient power* given them, and they take sufficient interest in the matter—for Government to add to its military expenditure by the present system of *paying for musketry instruction.*

What *return* does Government get from men (and there will be found a large proportion annually) who, after having taken marksmen's prizes for years, take their discharge or go on pension?

Views of COLONEL T. W. R. BOISRAGON, *Commanding 30th Punjab Native Infantry, on Army Schools.*

Economy might well be practised in the reduction or abolition of this establishment, and I would recommend merely a vernacular teacher capable of imparting instruction in simple reading, writing and arithmetic *sufficient for the requirements of the Native soldier.*

Whatever expense Government may go to in regard to schoolmasters and schools, excepting a *very* small percentage, soldiers will *not* learn, or keep up what they have been taught as recruits beyond that much reading and writing as will enable them to qualify for promotion.

The so-called "English teacher" or "schoolmaster" might, therefore, well be dispensed with, and his pay and pension be saved to the State. I consider him a useless encumbrance, in that he takes away one efficient soldier from the ranks and draws a salary without Government getting *any* compensating return.

Instruction by them in *English* is a perfect farce.

In the 30th Regiment, Punjab Native Infantry, there is *one* sepoy and about *five* boys learning *so-called English*.

The native army *must*, as a rule, remain an uneducated body. I mean as regards the soldiers *knowing more than reading and writing in their own character*.

Have really well educated natives entered the army as recruits?

No; and as soon as a man knows a *little* beyond the others, he tries to get *out* of the army by becoming a candidate for Roorkee College to get into the Public Works Department or elsewhere.

Educated Natives find *ready* employment on the railway and as clerks, &c. It is unfair to charge to military expenditure education of native line boys *beyond what a vernacular teacher could teach them*.

District schools is the place for them to go to for English, &c. Education must commence in youth and not when men are 18 or 20 years of age. They *don't* take to it from *choice* but *compulsion*, and thus struggle through *just sufficient* to qualify them for promotion to the grade of non-commissioned officer. A "Grunthee" to teach "Goormookhee" and a vernacular teacher for "Oordoo" is *ample*. *Assistant* teachers qualified to help in the instruction of recruits could be picked out of the ranks with merely a small staff allowance of a rupee or two, and this would meet all that was required without entailing any such expense as extra pension, &c.

Reduction could then be made in "school allowances" for books, &c.

T. W. R. BOISRAGON, *Colonel*,
Commanding 10th Punjab Native Infantry.

As an illustration of my views of *"English education,"* I attach the report of the native officer of the day, Jemadar Ram Sing (a direct commission), son of the late Sir Nehal Sing Chachee, K.C.S.I., who was for nearly eight years at the Rawalpindi Mission School and afterwards at the Lahore Government College and Mission Schools.

MUSKETRY.

The present system to be abolished; a needless expense to Government and unsatisfactory: proof of it that, since it has been established, and notwithstanding the present arms of precision, the firing is worse now than it was under the old method of instruction with "Brown Bess," when at Waterloo one bullet in forty fulfilled its mission, either killing or wounding; but now, look at the result, not once but frequently, in later actions, 1,000 rounds fired away and one man slightly wounded.

The method of instruction is erroneous, too much at fixed objects and known distances, in place of moving ones and at unknown ranges. No prizes should be given *by Government*; and thus it would save them Rs. 100 annually for each corps. Let the rewards and punishments be left to be distributed and administered by officers commanding regiments. Besides, making this course almost a *sine quâ non* to the detriment of other as necessary parts of a soldier's instruction, is fatal to the efficiency and discipline of a corps. Too many returns are also required, and too much from the officers, who are thus unable to devote themselves to their other requisite duties.

H. BOISRAGON, *Colonel*,
Commandant, 4th Sikhs, Punjab Frontier Force.

ARMY SCHOOLS.

A fallacy in native regiments. It is far better that we should not have an *English* instructed native army; attempting it is politically injudicious and a waste of Government money; all that is really required is that the men should be able to read and write sufficiently in the vernacular (Persian character, Nagri, or Goormukhi, &c., according to a man's nationality) orders received and reports to be sent; and this can be easily attained by being left with officers commanding corps, with the present allowance of Rs. 20 a month for schools and Rs. 5 for a shed, or room; Rs. 15 per mensem would amply suffice. Most of the regiments have a "moollah," "pundit," and "Goormukhi" (I have in mine; but they are supported by the men themselves, according to their creed. Where these are not paid for by the State, I would abolish at once), who would gladly teach the men at a very small remuneration, assisted by the regimental munshi, as they do with me. In the Punjab Frontier Force, an *English* education, indeed *any excess* in any, is discouraged by the Punjab Government, on the principle, and a very proper one, that we (particularly in the force) require physical soldiers and not "book-worms."

H. BOISRAGON, *Colonel*,
Commandant, 4th Sikhs, Punjab Frontier Force.

Dated Ootacamund, 6th September 1879 (Confidential).

From—Colonel R. H. SANKEY, Royal Engineers,

To—Captain E. H. H. COLLEN, Secretary to the Army Organization Commission.

Your confidential communication No. 333 of the 27th ultimo only reached me on the 4th instant.

2. I have not held any command of sappers and miners since 1850, and during my late command as commandant, Royal Engineers, South Afghanistan Field Force, I carefully abstained from interference with the interior economy of the sapper companies attached to the division. Under these circumstances, I could only very imperfectly reply to the great majority of the questions contained in the annexure M of your letter under reply.

3. In my letters as per margin, I have given my experience on several subjects connected with equipments, field and siege parks, &c., as derived from the facts that came under my notice in the late campaign; and I therefore trust that these, taken with the circumstances of my present duties, will be sufficient excuse for my not attempting to reply *seriatim* to many of the questions which, though not directly relating to the internal organization of the corps, I might possibly be expected to answer.

To Lieutenant-General Donald Stewart, C.B., dated Ootacamund, 9th May 1879.
To the Quarter Master General in India, Field Operations—K., dated Ootacamund, 3rd September 1879, enclosing also copy of the above.

4. All the queries, 35 to 45, relating to the possibility of forming a reserve of sappers and miners, as also the subject of query 62, are to my mind intimately connected with each other. As my conviction is that by a suitable reorganisation of the corps of Royal Engineers, and by establishing a much more close connection with the Public Works of India, not only would the maintenace of an adequate reserve become feasible, but Royal Engineer officers would regain the organisation which, as a military body (with the exception of the few individual officers attached to the sappers), they have lost in very great measure.

5. My first position is that every European in India whose functions are not directly incompatible with military training would be all the better for being a soldier; and that, especially in the Public Works Department, where expenditure has invariably to be limited if not suspended altogether in time of war, that this principle should more particularly be recognised.

6. If this view is correct, the establishment of Cooper's Hill College was a mistake. The results in turning out highly-trained engineers are undesirable; but I submit that no unprejudiced person can look at the splendid success of Woolwich and say that the latter might not be so expanded as entirely, if necessary, to supersede the other.

7. The whole engineering of India might then be entrusted to Royal Engineers (as a rule) organized in one corps, of which a certain number of battalions would have their sphere of duty in England and the colonies, and the rest in this country.

Exchange, though admissible between officers belonging to the home battalions, and desirable where there might be an incompatibility of constitution for continued service in India, should not be made too easy; as for all who came out here it is best that they should look upon this country from the first as their adopted home.

8. To meet the well-recognized defects of the old constitution and employment of the corps, by which officers once they went into the Public Works became entirely estranged from their military functions, I would suggest that (1) all officers attached to the sappers and miners should be graded and paid as Public Works officers, *i. e.*, the commandant, whilst so designated, might rank as Chief or Superintending Engineer, the 2nd-in-command as Superintending Engineer, officers in command of companies as executives, &c.; and (2) that all officers actually serving in the Public Works should, on receiving military promotion, or at five or six years' intervals, be obliged to take a year or six months' tour of duty at the head-quarters of sappers (passing a special course), and, while so employed, that their places should be taken by some officers who had either finished their course or were otherwise available.

9. As to the organization of the corps of sappers, I should consider that the recruits after, say, three years' complete training at head-quarters should be drafted into companies at each of the large military stations, where there would be plenty of work for them in the construction and repair of buildings, &c., and where also I would, as a rule, keep the reserve companies into which men at fixed ages might be drafted.

10. A month might be given each year to military training, and this, with the obligation to turn out on all occasions when the whole garrison was ordered for exercise, would suffice to keep officers and men up to the work.

11. As it should be a first object after training him for a sapper to make the sepoy a good journeyman in some trade, the employment of the corps on military buildings would directly contribute to this. The country should also thus be directly recouped to a great extent the cost of the corps; in fact, with a body of highly-trained men, there is no reason why the whole of the military and working pay should not be returned in kind, and only the net outlay of the head-quarters and of the corps during seasons of actual drill shewn as charge against "Military."

12. While the ordinary companies would change stations in regular roster, the reserve companies, which would necessarily vary greatly in strength, would, as a rule, remain unchanged, or might under certain conditions be available (or a portion of them) for any great public work in process of execution in other localities where their services might be needed.

13. In order to increase as much as possible the attractiveness and efficiency of the corps generally, as well as to give a specific value to the reserve, I would submit that the rules already existing on the subject of employing native soldiers in the Public Works Department should be worked and utilised to their full extent.

14. From whatever cause, the rules embodied on this subject in the Public Works Code have not been availed of,—see new edition of Code, chapter V, paragraphs 128 to 137. The rules might call for improvement, but I must contend that the principle embodied in them, fairly worked with the hearty support of commanding officers, as also those of the department, would in time give the Government a reserve of men in time of war, and the Public Works in peace, which would be invaluable.

15. It is doubtful whether any sepoy should be allowed to take advantage of the rules till he had passed regularly into the reserve companies, from which he might be drafted by his immediate commanding officer on the requisition of any executive engineer; and in order to secure him a sufficiently good position, I would create a 4th grade of sub-overseer, ranging from Rs. 15 to Rs 25 per mensem, from which he could rise through all the various grades to that of 1st grade, with maximum pay of Rs. 70 per mensem, exclusive of horse allowance (see Code).

16. All men so employed should be subject to periodical training and liable to be called out on the declaration of war.

17. The details of this scheme I regret it is at present out of my power to give. My conviction, however, is that properly elaborated, it would correct the greater part of the existing defects, and place

at the disposal of Government in case of war a large body of officers and men in the highest state of efficiency and training at a minimum of cost to the country.

18. I by no means advocate the formation of a separate Military Branch of the Public Works Department. The continued employment on the petty work and repairs of barracks, &c., must have a most deteriorating effect on, and is not the proper use for, officers of high engineering training, though of course if associated with the general work of the Roads and Buildings Branch the same objection would not exist, an officer being at the worst only employed for a portion of his career in this particular line. Nor under the system generally suggested by me would it be necessary to keep the Military Branch separate, as the great majority of the officers would under it be Royal Engineers.

19. In teaching readiness of resource under difficulties, widening the experience, increasing the intelligence, in fact in cultivating and expanding all the qualities so valuable in actual war, there is nothing, I submit, so valuable as a Public Works career, whether passed in the Roads and Buildings, Railways, or Irrigation Branches.

20. The proposal to introduce largely native soldiers (it need not be confined exclusively to the sappers) into the lower subordinate grades of the Public Works Department, fits in with the acknowledged requirements of the times. Sooner or later the upper subordinate grades of the department must consist mainly of natives, and there is no reason why the army might not be made to supply its contingent to this, and gain immensely in the process.

21. The plan adverted to in query 45, of forming railway companies, would no doubt also link in well, as would probably also companies of signallers, transport, &c.

22. In regard to the subject-matter of query 61, the value of teaching native soldiers the use of the pick and shovel is undoubted. To do this at the least expense they should be encouraged to work under the department as occasion offers. The system of contract I much prefer to giving working pay, and from some experience I have had in this matter in Bangalore, I feel assured that with proper arrangements this would be feasible. Contracts might be accepted by a commanding officer for his men.

23. In reply to query 63, as to whether the Telegraph Department should not construct and maintain the lines up to the point where the force comes into contact with the enemy, I certainly think this is the proper course. Not only so, but in the equally important matter of communications I would apply the same principle. On the declaration of war, a scheme of necessary roads and other works should be made out, and its execution placed under the immediate charge of the Public Works Department as separate from the company, Royal Engineers, and sappers attached to the advancing force.

24. Here again the advantage of having mostly Royal Engineers to deal with would tell with effect, as in that case the department might carry its operations on *pari passu* with the advance of the troops; whereas with a purely civil department difficulties might be experienced in case the resistance were considerable and the risks of life great.

25. The immediate duty of the company, Royal Engineers, and what I may call the working force of a division, is to clear as quickly as possible all obstacles immediately retarding the advance; but of course such hasty work has little reference to the establishment of such fair roads, &c., as are none the less desirable for facilitating the subsequent forwarding of parks, supplies of food, &c. General Phayre's work in the Kutchi Plain and Bolan Pass is a good example of what I mean. Neither the general in command of the division nor his staff should be harassed with considerations regarding such matters, and the most effectual method of affording relief is that which I have ventured to propose.

26. I do not know that I can usefully deal with any of the other points adverted to in the query paper under reply.

Notes by LIEUTENANT-COLONEL G. N. MONEY, *3rd Sikh Infantry, on the formation of a reserve for the Native Army.*

Regimental system of reserve companies recommended.

1. The great difficulty in the way of a "militia" reserve, and also of reserve "battalions," would be the want of officers; but I see no difficulty in the formation of reserve companies for regiments. Two full companies per regiment would probably be sufficient.

Composition.

2. There are many young soldiers who are compelled by family exigencies to take their discharge, who are fond of the service, and would be only too glad to join a reserve of this kind and keep up a connection with their regiment. Again, there are many good soldiers of 15 years' service who have plenty of work in them, but whose prospects of promotion are small; they are also somewhat tired of the hard routine duties of a sepoy, and would gladly take their pension, on the condition of 10 years' further service in the reserve.

Ditto.

3. I would slightly relax the rules for invalid pensions, and pass a certain number of such men into the reserve to form a nucleus, and I would call for volunteers from men—within certain limits of age—who have already served over three years and have taken their discharge.

Ditto.

4. The reserves once formed would, I think, be very easily kept up to full strength.

Commissioned and non-commissioned ranks.

5. Vacancies in the commissioned and non-commissioned ranks to be, as a rule (subject to exceptions in meritorious cases) filled up by transfers from the regiment; men only embodied for a short period every year would hardly keep up, as a rule, the necessary qualifications, and the non-commissioned officers *must* be good men.

Classes composing reserve companies.

6. The men composing the reserve companies must of course be British subjects, for no control could be exercised over those who were not, and must consist of those classes only whose homes would be within reach of the depôt.

Embodiment for drill.

7. These reserves to be embodied for drill for one month every year, giving a clear three weeks for drill and exercise.

8 The reserve companies of four or even five regiments might be linked together to form a battalion when embodied for drill at some central station, where their arms, clothing, &c., might be stored for the remainder of the year. Should it be practicable, however, the reserve companies should join their own regiment for the drill period.

British officers. 9. I do not think it would be necessary to appoint any British officers permanently to the command of these reserves. It would always be possible to detail an officer from regimental head-quarters during the drill season; while senior officers would be appointed from army head-quarters for the command of the battalions thus temporarily formed.

Season for embodiment. 10. The embodiment should take place at such time of the year as may be most convenient for men engaged in agricultural pursuits, probably after the autumn sowings have taken place.

Pay, &c., while embodied. 11. The reserves while embodied to receive full pay, with free passage by rail to and from their homes.

Clothing. 12. As regards clothing, I believe that native troops very rarely, if ever, wear cloth clothing on service. One suit, therefore, of half mounting of the regimental pattern should be issued free of cost every fourth year, when the previous suit would become the property of the men.

Permanent establishment. 13. There would be some permanent establishment necessary to look after the arms, clothing, &c., during the year. I think these might be furnished from the ranks of the reserve. There is also the question of camp equipage to be considered.

Inspection. 14. The reserves should be carefully inspected, and weeded of all worn out or weakly men, at each drill season.

Reasons for preferring regimental reserve system. 15. It would seem at first sight better for some reasons to have "reserve battalions," but I do not think they would answer so well:

I. There is the difficulty, as I said before, about officers.

II. Although they would do for garrison duties and thus relieve a proportionate number of regiments for field service, I think Government would prefer a plan which would enable them at any moment to increase the effective strength of as many regiments as was deemed necessary. The present strength of native regiments is too small for field service.

III. There would be no cohesion, no *esprit de corps*, in reserve battalions formed of men from different regiments, with different ideas, customs, and traditions.

The native soldier has a great love for his own regiment, and would individually be twice as good a man in every way rejoining his own corps, to what he would be in a reserve battalion.

Second or veteran reserve. 16. It may, however, be deserving of consideration whether a second or "veteran" reserve might not be formed on the "battalion" principle for garrison duties only.

Class regiments better as regards reserve system. 17. The formation of regimental reserve companies would be rendered easier by the gradual conversion of regiments into "class" regiments

18. I regret that before writing the above notes I have not been able to talk over the subject with some intelligent natives, Sikhs and Punjabis, as one might obtain some valuable hints from them.

SHEKH BUDIN;
The 14th July 1879.

G. N. MONEY, *Lieut.-Col.*,
Offg. Commandant, 3rd Sikhs.

Dated Shekh Budin, 8th July 1879.

Demi-official from—Major A. J. D. HAWES, 4th Punjab Infantry,

To—The General Officer Commanding.

I hope you will not think I have delayed answering your letter through idleness, nor that I have now written at too great length. You will find, I am sure, that my proposition reads much shorter than it looks. The notes are merely added in case you wish to know my reason on any point. The fact is, when I came to put my ideas on paper, many unforeseen difficulties arose, and I have been somewhat afraid of committing myself.

In talking on the subject of reserves for the native army, I have only heard four possible propositions made—

1st.—Class regiments with regimental reserves.
2nd.—Mixed regiments with army reserves.
3rd.—Regimental reserves to be trained at army depôts.
4th.—Deferred pay to be given to old soldiers re-enlisting for service.

I have endeavoured to work out the details of (1) and (2); and to me the class regiment plan appears altogether preferable. The officers of all three battalions would be interchangeable, and all would be personally interested in the efficiency of the whole regiment. You would have the two most rising men in the regiment to carry out the important duty of enlistment and training, under a commandant of course; and in case of war there would be a reserve of officers for the battalions on service. Lastly, you would get better recruits, and the expense of men turned out "physically unlikely to become good soldiers" would be avoided. I think class regiments would be better fighting units than mixed. The Ferozepore and Ludhiana Sikhs, the 23rd Pioneers, and 32nd Muzbis are, I believe, amongst the very best regiments in the service.

No. 2, "my alternative proposition," reads well, and has the advantage of simplicity; but in practice I think there is great fear of friction. When in working order, No. 1 will be quite simple; and I really do not think any difficulty would be found if it were started as I propose.

Nos. 3 and 4 I regard as quite impractical, and believe they would utterly fail when needed. In proof of what I say, when the order came for us to augment, I at once wrote individually to every discharged soldier worth getting back, carefully explaining that all back service would count, and that they would receive the Rs. 30 bounty. I was surprised to find there were only some twenty men whom it was desirable to recall, and of these only two (!) availed themselves of the offer.

I have not touched on the subject of trans-border Pathans or Goorkhas; a different system would, I fancy, be needed for them. The attempt to reduce my theory into a working plan has given me the greatest interest; and I can only hope there may be some grains of wheat amongst the chaff. From what I know of our men, I have every reason to believe that reserve pay would have the greatest attraction for them; for it means remission of the land-tax. Deferred pay on retirement appears not to attract them at all.

Proposition for forming a Reserve for the Native Army, by MAJOR A. J. D. HAWES, *4th Punjab Native Infantry.*

Notes.

Nature of service.

1. Partly long service with pension, partly short and reserve service without.

The regiment.

2. To be class, and to consist of—

2 service battalions.
1 depôt or veteran battalion.

This latter to include training staff for reserve men and recruits.

Service battalions: constitution.

3. With the colors 450 sepoys or 500
Reserve men at home 400 „ or 300
(Recruits training at depôt about 80.)

Veteran battalion and depôt.

4. With the colors 300 or 400 or 400
Reserve at home ... 400 or 600 or 400

N.B.—I have only mentioned sepoys; but for native officers and non-commissioned officers the principle is much the same, and as regards them there appears no difficulty.

Nature of service and furlough.

5. One hundred and twenty (approximately) recruits for each battalion to be enlisted annually at depôt, and, when thoroughly trained, to be allowed a short leave to settle their home affairs, and then to join one of the service battalions. Service to count from date of leaving the depôt.

For calculation, see Note 6.

Service and reserve pay.

After three years' uninterrupted service any man may volunteer for the reserve. Reserve pay to be as below and for eight years at least, but as long as Government pleases: no pension (Note 7).

	Rs.	A.	P.
After 3 years' service	2	0	0
„ 4 „	2	4	0
„ 5 „	2	8	0
„ 6 „	2	12	0
„ 7 „	3	0	0

After eight years' service all men to be transferred to the veteran battalion; men after eight years' service not eligible for first reserve (Note 8).

Formation of reserve.

The higher the reserve pay, the more anxious will the men be to take it, and the better will be the class of men anxious to serve generally. It is a *sine quâ non* that this pay should be sufficiently good to ensure a constant flow of men into the reserve, permission to serve in which should be looked on as a boon on the part of Government. The rates given above will, I feel sure, attract full 30 or 40 men (of from three to eight years' service), which is sufficient. If 40 men are annually enrolled in this first reserve, and serve in it 13 years, the ages of men will be, on passing out of the reserve, 19 years of age + 5 years (average) with the colors + 13 years' reserve service = 37 years of age.

Long service men.

9. On completion of eight years' service with the colors, all men (not enrolled in the first reserve) to be transferred from the service to the veteran battalion.

For calculation, see Note 8.

N.B.—450 to 500 men with the colors will admit of a fair proportion (say 30 to 40) being absent on furlough, which should be open all the year round for men over three years' service.

Reserve battalion.

As this battalion is exclusively for garrison and other light duties, even in time of war (although, if required, it might, and would, furnish volunteers for the service battalions), men might well serve in it up to 45 years of age, especially as the last years would be at their homes.

Strength.

11. Strength not more than 1,000, nor less than 800. Of these 300 or 400 might be present with the colors, the rest in the second reserve on Rs. 3 per mensem. Being in the centre of the district from which the men were enlisted, the services of any given number of men could be secured as required.

Pension.

On completion of 24 years' service a man to claim his pension (at present ordinary rates) *as a matter of course*. If invalided before completion of 24 years, pension of sepoy to be Rs. 3-8, and slightly reduced for other ranks. This to discourage malingering. Twenty-four years seems a long tour of service, but any amount of furlough on reserve pay might be

arranged for men in the second reserve, and at the most a man would be called on to serve with the colors 14 years, *i.e.*,—

In service battalion 8, in reserve	6	...	..	= 14
At his home on reserve pay, Rs.	3	...	...	10
			Total ...	24

Training reserves. 1st reserve.

Six hundred to 800 men of the 1st reserve would be trained at the depôt annually for (say) one month, the time being chosen when they could best be spared from their fields.

2nd reserve. Volunteers.

For the 400 men of the 2nd reserve 10 or 15 days per annum would, I think, be sufficient, and even that might be omitted on men passing 16 or 20 years' service. Men physically fit might, and would on war breaking out, volunteer for the service battalions.

	No 1. Battalion.	No 2 Battalion.	No 3. Battalion.
For peace—			
Strength of battalion:			
With the colors	500	500	400
Reserve	300	300	400
Total ...	800	800	800
			exclusive of about 160 recruits.
War footing—			
With volunteers and just trained recruits ...	900	900	600

Cost of 3 battalions as proposed:

	Per annum.	
Service battalion 1 / Ditto 2	=68,730×2=	137,460
Reserve battalion		61,500
Total 3 battalions (2,400 men)		198,960
Cost of 3 regiments as at present	66,720×3	=200,160

PROPOSED BATTALIONS.

Calculations of cost.

Service battalion.

Service Battalion.

500 men	@ 8	=4,000
Good-conduct pay, 150 men	„ 1	= 150
300 1st reserve men	„ 28	= 750
80 recruits	„ 8	= 640
Total per mensem ...		=5,540
		× 12
Training for 1 month		66,480
300 reserve men @ (10—2-8 =) 7-8		2,250
Total annually ...		68,730

Veteran battalion and depô

Veteran Battalion and Depôt.

400 men	× 8=3,200	
Good-conduct pay 200	× 2= 400	
Ditto 200	× 1= 200	
2nd reserve 400	× 3=1,200=	5,000
		× 12
Annual cost.		60,000
15 days' training 400 × (10—3) / 2 =		1,500
Total ...		61,500

Present regiments.

Present Regiments.

640 men	@ 8=5,120	
120 Good-conduct pay	@ 2= 240	
200 ditto	@ 1= 200=	6,560
		× 12
Total annual cost	=	66,720

A. J. D. HAWES, *Major,*
4th Punjab Infantry.

Notes.

1. There seems no reason why the 1st reserve men who elect for this form of service should receive any pension on their services being no longer required.

2. The depôt battation allows of the services of old soldiers being utilized for garrison duties when the service battalions march to the front and also serves as a training school, and would furnish numerous volunteers.

3. Probably 450 men would be insufficient in garrisons on the new frontier. Reserve men would then have to be called in.

4. My whole service having been passed on the frontier, I do not know the duties or requirements of down country stations. Probably in many 400 sepoys would be more than sufficient.

5 & 6. It has taken 100 recruits per annum to keep each of the regiments (4th Punjab Infantry and 3rd Sikhs) up to 600 strong, and about 250 men are over 8 years' service. I think, on the terms proposed, 120 men would furnish 40 to the 1st reserve, 40 to the veteran battalion, allowing for 40 casualties during the eight years.

7. I have allowed of five different rates of reserve pay, for no fanciful reason, but because it so often happens that good men have to leave the service almost on the moment, from pressing home reasons. Again the object is to tempt men on to as nearly eight years' service as possible before joining the reserve; and lastly, to discourage scheming for a higher rate.

8. It is no use going to the expense of training more men than required; and after 8 years about 40 men would remain of 120 recruits enlisted, which would just (form two battalions) give 80 men per annum for the veteran battalion; 80 men × 5 years = 400; but, allowing casualties about 25 per 1,000 in six years, the 400 would be replaced.

9. If there are only to be 300 men with the 1st reserve, either less than 40 must be allowed to elect for it, or the service therein must be shorter.

11. Four hundred men with the colors (and 400 in 2nd reserve) would probably be sufficient for the duties in most stations down-country. I have no practical knowledge on this point.

How to commence.

(1) Form the whole Bengal Army into regiments, consisting of first second, and third battalions. The last to be the depôt battalion, and to be moved at once to convenient central stations. Regiments to be *called* at first; but in a few years really to become "*class regiments*," *e. g.*, the 14th and 15th Sikhs and the 3rd Sikhs, Punjab Frontier Force, might be styled No. 4, or the Ferozepore Regiment. This regiment would very soon consist of nothing but Mulwai Sikhs, and its depôt might be at Ferozepore or Ludhiana.

(2) At once transfer 100 senior sepoys and one-eighth native officers and non-commissioned officers from first and second battalions to depôt. Commanding officers to be allowed a wide discretion as to the numbers and the men they would send. Men over 14 years' service might at once be offered reserve pay, and would take it.

(3) Draft out at least 200 of the last joined men from depôt and one-fourth of the best native officers and non-commissioned officers to join the service battalions.

(4) After this, year by year, as many old men as could be spared and a small proportion of native officers and non-commissioned officers would be drafted from service to depôt battalions, and each year 40 per battalion would join the 1st reserve. In a very few years the change would be effected without any great regimental disturbance.

Note. Until in full working order, the men transferred from the service battalions would join the depôt of their class, not of their third battalion.

BUNNOO; *July 1879.*

A. J. D. HAWES, *Major, 4th Punjab Infantry.*

Alternative proposition for forming a Reserve for the Native Army, by MAJOR A. J. D. HAWES, *4th Punjab Infantry.*

In peace, strength of regiment 500 sepoys.

Let each regiment keep up (allowing deductions for non-effectives, raw recruits, sick and coming invalids) 500 sepoys fit to take the field at once, and let these be distributed in six companies.

On war breaking out.

On war breaking out, break up one company, thus at once forming five companies of equal strength (*i.e.*, 100 sepoys), and let three full companies under their own officers be sent from any other regiment. Then 500 + 300 = 800 sepoys.

War strength 800 sepoys.

Strength of reserves.

Reserves.—Assume that 20 regiments will require to be thus reinforced. Then we have 20 × 300 = 6,000 men required. Form ten depôts at convenient centres, and attach these reserves, 600 at each, to them for training and mobilization.

Location of reserves.

Reserves how to be utilized.

On war breaking out, any two regiments situated conveniently near a depôt might each detach three full companies (British and native officers and non-commissioned officers complete) to any regiment under orders for the front, receiving 300 reserve men to replace them. These companies on conclusion of peace would rejoin their own regiments.

Reserves: formation of—

If each of 50 regiments sent 20 or 25 men annually to the reserve, that would raise its strength to 6,000 in about ten years; after which time the surplus would have to be got rid of.

These reserves might be formed of men of (say) 10 or 12 years' service, receiving pay at Rs. 3 per mensem up to 20 years' service, and then claiming the ordinary pension. Those becoming physically unfit before completing 20 years receiving 3-8 for a sepoy (and something deducted for other ranks), or they might be men from 3 to 8 years' service, receiving

reserve pay for a certain number of years (say ten), and then their services would be simply dispensed with.

Query.—Long service with pension, or short without?

There is much to be said for both these propositions. The former enables Government to utilize the services of old soldiers, who are quite fit for ordinary duties, and thus relieve the pension establishment. The latter secures the services of trained men in the prime of life, now so constantly lost, owing to men leaving the service for urgent family reasons.

Training reserves.

These reserves would be trained annually for 15 or 20 days; and I fancy one officer, who would be in charge of the depôt, clothing, accounts, &c., &c., would be required, assisted by a small staff of drill instructors.

Note.—Of course all the men of a regiment would not be attached to the same depôt. The Mulwai Sikhs would go to Umballa, the Manjahs to Lahore, and so on.

I believe the last campaign has proved that regiments of the present strength are not able to put more than 500 men in the field on the instant, and therefore these reserves would add to the present cost of the army, *viz.*,—

Cost.

Six thousand reserve men at Rs. 3 per mensem = Rs. 18,000 × 12 = Rs. 2,16,000 per annum, besides contingent expenses.

Note.—My whole service having been passed on the frontier, I know nothing of the duties of down-country regiments. During 1877 and last winter the band of the 4th Punjab Infantry had frequently to be put on duty; and, as a rule, for a large portion of the year three nights in bed and under is the rule. I do not think therefore that regiments *actually* serving on the frontier could be reduced; but if fewer men are needed down-country, a saving might be effected by having fewer men with the colors and more reserves.

BUNNOO; *July* 1879.

A. J. D. HAWES, *Major*, *4th Punjab Infantry.*

Memorandum on the organization of Reserves for the Native Army, by CAPTAIN A. H. TURNER, *2nd Punjab Infantry.*

Object of reserves.

1. The object desired in any scheme of reserves for the native army may, I conclude, be defined as the means of bringing the battalion at once and in a few days from a peace to a war footing, complete with fully trained men still young and equipped as all those at the time serving with the colors.

Danger to be guarded against.

The danger, in a military sense, to be guarded against is, that the battalion when on a peace footing is not so attenuated or denuded of fully trained soldiers as to render it incapable of performing efficiently its peace duties, and even engaging in any small frontier war.

Question of army reorganization requiring previous decision.

2. Two questions of army reorganization appear to require settlement before any scheme of reserves can be satisfactorily considered; the reason being that the practicability of such a scheme must in a great measure depend on the decision on these two points. On the other hand, the decision may be influenced by the facilities or otherwise afforded for carrying out any scheme of reserves.

The questions for primary consideration are—

(1) Are regiments to be "class" or "mixed" regiments?

(2) Can localization of regiments, complete or partial, be adopted?

"Class" or "mixed" regiments.

3. The question of "class" or "mixed" regiments must, I conceive, be decided mainly on political grounds. There probably is much force in the objections urged against *all* the regiments of our army being "class" regiments. But it would seem well worth considering whether it is not advisable, politically, as well as affording great facilities in introducing any system of reserves, to limit the number of classes in each regiment to perhaps two, and to apportion to each regiment certain specified districts from which alone it is to recruit.

Limitation of the number of classes in a regiment and of recruiting-grounds affords great facilities for reserves.

Complete localization impracticable.

4. By "complete localization" is meant that the head-quarters of the regiment be permanently stationed in one district in time of peace. This may probably be at once dismissed as inapplicable to the circumstances of the Indian army.

Partial localization desirable.

By "partial localization" is meant to propose that the recruiting-grounds of each regiment should be confined to certain specified districts; that the several regiments told off to recruit in the same districts should form one group; that at certain stations to be fixed on as reserve depôt stations in or near these districts one or more regiments of this group should in regular tour be quartered, and the following duties devolve on it or them:—

Regiments to have definite recruiting-grounds and to be grouped accordingly.

Reserve depôt stations.

Duties of the regiment at the reserve depôt station.

1st.—Taking charge of the arms, accoutrements, clothing, and documents of the reserve men of the group who lived in that district

2nd.—Training the reserve men of the group when called out annually.

3rd.—Equipping the reserve men and despatching them to their several regiments when called out for service.

4th.—Recruiting in time of war for remnats on service and training their recruits.

A wing officer of the regiment might be told off for the supervision of these duties, receiving extra staff pay for doing so; or a special officer might be permanently appointed at the station and attached to the regiment

stationed there for the time being. Men would have to be detailed from the regiment to look after the arms, &c., and would receive some small staff pay. When the reserve men were under training, the whole staff of the regiment would have to assist, and help be sent from the other regiments. Each regiment of the group would take its regular tour at the depôt station, and would, whilst quartered there, be the last regiment to be called on for active service.

Example.

For example of the different regiments in which Sikhs formed an element, one group would be told off to recruit only in the Amritsar and Lahore districts; and Meean Meer becoming the reserve depôt for that group, the reserve men of those districts would all assemble there for training and mobilization. Similarly, Jullundur would become the reserve depôt for the group recruiting in Jullundur and Ludhiana. Certain districts being more fruitful recruiting-grounds than others, the groups of regiments would be unequal in numbers; but this would cause no practical inconvenience. If a decision favorable to some such scheme of "limitation of classes" in a regiment and "partial localization" be arrived at, the adoption of reserves becomes, I think, much facilitated.

Points to be considered in formation of reserves.

5. The following appear to be some at all events of the points to be considered with reference to the formation of reserves:—

(1) the period to be spent by the soldier with the colors:
(2) the period to be spent in the reserve:
(3) extent to which discretionary power to re-enlist men is to be given to commanding officers, so as to furnish candidates from which to select men for the non-commissioned grades, and the term for which such men are to re-engage:
(4) whether all men who have served the prescribed period with the colors are to be allowed to pass to the reserve, or only men approved by commanding officers:
(5) extent of annual training:
(6) season of annual training:
(7) rate of retaining-fee of reserve men and of pay whilst under training:
(8) whether any class of soldiers be excluded from the operations of such system:
(9) whether to be introduced fully at once or by degrees:
(10) whether likely to be popular:
(11) mobilization.

In addition will have to be considered the whole question of pensions and gratuities on discharge.

Period to be spent with the colors.

6. The period to be spent by the soldier with the colors must be decided with reference to the necessity of always having in the ranks a sufficiency of fully trained and fairly seasoned soldiers fitted for the many duties the army is called on to perform in time of peace, and even to engage in any petty frontier war without calling on the reserves. The probable effect of lengthening the period during which the soldier cannot claim his discharge must also be considered. With the higher training now required of soldiers more especially in the use of the rifle, fully the first year of service is taken up in learning mere drill properly; and few will gainsay that it is fully the end of the second year before the recruit becomes in all respects a reliable soldier with whom drill and discipline have become a habit Certainly also a regiment containing no private sepoy of over three years' service would be considered too young. On the other hand, to unduly lengthen the period of first engagement would probably have an injurious effect on recruiting. Probably, therefore, five years may be considered as the period most likely to meet the requirements.

Period in the reserve.

7. The period to be spent in the reserve must be settled with reference to the number of men it is considered desirable the reserve should contain. If the strength of a regiment on its peace footing is to be 600 sepoys, enlisted for five years, then, when the system had once come into full play, eliminating for the moment the question of casualties, 120 men would annually pass to the reserve. But, deducting casualties by death, men re-engaged, and men discharged as recruits unlikely to become efficient soldiers or as of bad character, it is certainly not probable that more than 70 men per annum would pass to the reserve; and this, allowing for casualties whilst in the reserve, would give about 300 men per regiment at the end of five years—certainly not an excessive number. Should experience prove five years in the reserve to be too short, it might be lengthened to seven; and it would probably be found that most men would desire to continue on in it.

Number of men to be annually re-engaged for service with colors to be limited.

8. As to extent to which discretionary powers should be given to commanding officers to re-enlist men for a second period with the colors, it would appear desirable to limit the number annually re-engaged to some definite total deemed sufficient to meet the requirements of the non-commissioned grades, and to provide for the cases of men who, otherwise excellent soldiers and of a race who can only live by soldiering, are still not thought likely candidates for the non-commissioned ranks. But discretionary power must rest with the Commander-in-Chief to sanction a deviation from the number laid down, in order to meet exceptional requirements. The selection of individuals must be left entirely to the commanding officer, of course leaving to the soldier the option of passing to the reserve or quitting the service.

Of the length of term for which the soldier is to re-engage, the present plan of leaving it unlimited appears the most desirable. But the soldier should have the option of at any time leaving the service or joining the reserve, and completing in it a total number of years' service equal to that of other reserve men.

Commanding officers to be allowed discretionary powers as to permitting men to re-enlist for reserve.

9. In considering whether all men having served the prescribed period with the colors are to be allowed to pass to the reserve or only those approved by commanding officers, it may be remarked that our bargain with the soldier has hitherto been a rather one-sided one. He has had the right to claim his discharge under certain conditions after three years' service; but we have not left to commanding officers the power of declining the man's services after that period, if he considered him an undesirable soldier. It would seem advisable to allow the commanding officer the power of refusing permission to a man he considered an undesirable soldier to pass into the reserve, commanding officers would probably not be unduly hard in the exercise of this discretion.

Annual training.

10. Of the extent of annual training to be undergone by the reserve men, all that is to be said is that, seeing what is required of a modern soldier, two months cannot be said to be excessive. But to avoid rendering service in the reserve unpopular by taking the man for a considerable period from his ordinary avocations, one month, or at most five weeks, will be all that is practicable. How this period of training should be employed must be laid down generally. Musketry training will occupy a considerable portion, and outpost duties must be taught. Battalion drill must have but a few days devoted to it.

Season of annual training.

11. The season for annual training would vary in different districts according to climate as affecting agricultural operations: it must be decided on after consultation with the civil officer of the district.

Retaining-fee of reserve men and pay when called out.

12. As to the retaining-fee to be given to reserve men and their pay whilst under training, it will, I believe, be found that the offer of Rs. 2 per mensem would be sufficient inducement to men to engage for the reserve. This should be paid to them one-half on presenting themselves for training, so that they may make at once a remittance for the support of their families during their absence; the other half should be paid to them to take to their homes after training is over Pay of reserve men whilst under training or called out for service would naturally be the same as that given to sepoys of equal service.

Races to be excluded from reserves.

13. As to whether any races are to be excluded from the ranks of the reserve, it would appear desirable to confine such service to our own subjects; against whom such rules as may be enacted for the punishment of those failing to appear for annual training or when called out for service can be enforced. The punishment in the former case should be light; in the latter most severe.

Whether to be introduced at once.

14. As to whether such system is to be introduced wholly at once or by degrees: having once decided that reserves are desirable and feasible, there would seem to be no just cause for delaying their application to the whole army. It is highly probable that many men at present in the ranks would gladly accept service in the reserve under the above conditions. Should experience prove that the inducements offered are not sufficient, better must be held out; and these probably should take the form of deferred pay.

Whether reserves likely to be popular.

15. As to whether a system of reserves would be popular and produce the men required can be but a matter of opinion at present. Seeing how many men now annually take their discharge to return to their homes and the cultivation of their fields, carrying with them no tangible benefit from their past service, I believe that a large proportion of the men in the ranks would gladly leave service with the colors and accept the not hard conditions of service in the reserve. Too large a proportion of our soldiers being drawn from the class who cultivate their own bits of land, they are free from the drawbacks entailed on reserve men in other countries where they are all employed men.

Mobilization.

16. Mobilization would be simple under the above system. On information being sent to the reserve man's place of residence through the district police, the man would proceed at once by rail, if such means were available, to the depôt station, there to receive his arms, clothing, &c. An officer would be detached from the regiment mobilizing to the depôt station, with some native officers and non-commissioned officers, to take charge of the reserve men to their regiment, in which they would at once take the places previously told off to them. As railway communication increases year by year, the time required for a regiment to mobilize will decrease; and even now it can only be a matter of a few weeks.

Pensions.

17. The present pension rules have always appeared to me a simple premium on malingering. Until a soldier has completed 40 years' service—
period given to few to accomplish—he can hope for no increase in the
ısion attainable by those invalided after 15 years in the ranks. Is it to
wondered at, then, that he often prefers a certain income, which even in
ɜ case of a sepoy provides him with food, to be enjoyed quietly at his
me, to parades, duty and discipline? The aim of many men, therefore,
er completing 15 years' service, is to obtain a pension as soon as possible.
ɔw much a soldier's chance of passing the invaliding committee depends
his power of "getting himself up" all regimental officers know; as also
w many worthless men are returned to the regiment because they wish to
ve on. Pensions should be graduated and *claimable* after certain periods
service without reference to health. Probably no pension should be

given before 20 years' service in the ranks, though gratuities might be offered to men of from 12 to 20 years who wish to retire, and handsome ones should be given to men who have not completed the service for pension, but who break down in the service after re-engaging.

Strength of regiments.

18. The strength of regiments on the peace and war establishments respectively would be as follows. When a system of reserves is in full play, 600 privates would probably be sufficient for a peace establishment: on the reserves being called out, the regiment would, after leaving behind all sick men and recruits not fully trained, probably take the field 800 strong. Men rejoining from hospital and recruits as they completed their training, would be available to be sent to the front to replace casualties. And meanwhile the battalion at the depôt station would be entertaining fresh recruits; the passing of its own men to the reserve being for the time suspended.

Summary.

19. The above propositions may be summarized as follows:—.

1*st*.—The number of classes or races in a regiment to be limited to two.

2*nd*.—A scheme of partial localization to be introduced, by which regiments are grouped together and tied down to certain recruiting-grounds, having one of their number always stationed in that district, taking charge of arms, accoutrements and training of reserve men in peace time, and recruiting for the regiments on service in time of war.

3*rd*.—The soldier to be enlisted for a period of five years with the colors.

4*th*.—After the above period such soldiers as are not selected for re-engagement or who do not desire to re-engage with the colors to be allowed, if fitted, to engage for five years (or more, if found necessary) in the reserve; receiving Rs. 2 per mensem retaining-fee whilst so serving, and in addition pay proper when called out for training or active service.

5*th*.—The number of men re-engaged for service with the colors to be limited.

6*th*.—The annual training of reserve men to extend over at least a month, and to take place at such time as is most suitable to the circumstances of the district.

7*th*.—Soldiers not subjects of the Imperial Government not to be engaged for the reserve.

8*th*.—Pension rules to be altered.

9*th*.—The strength of a regiment to be in peace time 600 privates, becoming on mobilization about 800 fully trained efficient privates.

The 29th June 1879.

A. H. TURNER, *Captain*,
2nd Punjab Infantry.

A scheme for the formation of a Reserve for the Native Army, and for placing the system of granting invalid pensions on a sound footing, by CAPTAIN H. D. HUTCHINSON, *40th (The Shahjehanpur) Regiment, Native Infantry.*

One of the questions to be considered by the Army Commission is the formation of a reserve for the native army. That this is a most important question nobody will deny. Many matters must be carefully considered, and many facts thoughtfully weighed, before it can be decided that it would be a prudent measure to have such a reserve at all. To many the idea may suggest itself that it would *not* be a wise thing to have a large body of highly-trained men scattered broadcast throughout the villages and cities of the land: and, that in the event of any popular disturbance, they would be at least as likely to make common cause against the Government, as to respond to the call to join their colors. There are others, doubtless, who will say that the measure, if carried out, will make military service more distasteful than ever. Recruits of a good stamp are daily becoming more difficult to obtain, and (say they) they will be harder to get than ever, if anything be done now by which the rules regarding the grant of pension will be affected; or in other words, by which the pension will be made more remote, or harder to obtain. It would be easy to answer all these, or any other, objections. There is at least as much to be said on one side as the other; and the writer, far from sharing any of the doubts and anxieties above referred to, believes firmly that the introduction of a good and sound reserve system would be as much a source of political strength, as it would certainly be of military efficiency and economy. It is not, however, within the scope of this paper to discuss what may be termed the political aspect of the question. It is sufficient here to remark that the inducements must be very great, and the pressure on him very strong, before a reserve man would deliberately throw away all the advantages accruing from his previous long service, and risk his present pay, and his future pension, by taking up arms against the Government. As to the popularity of the measure, and its possible effect upon recruiting, there is no doubt that an equitable scheme would be well received, and would work admirably. There is no reason why it should not do so. Service in the reserve under the rules hereinafter proposed would be no hardship. It would be much the same, so far as the *individual* would be concerned, as being transferred to the pension establishment, except that in the one case, he would go in accordance with regulations; in the other, the end is achieved in spite of them. So it is a fair inference that, under such conditions, a man would rather be transferred to the reserve, *i. e.*, to his home and comparative ease, after 16 years' service, than have to scheme and malinger to be invalided after 15 years' service, as 19 out of 20 sepoys do now, when they see they have nothing further to gain by a longer stay in the ranks. It is a fact beyond dispute that the annual payments on account of native military pensions are enormous, and constantly increasing: yet it is felt that there is small advantage, positive or negative, resulting from the outlay. At the same time the pension rules are so palpably one-sided and imperfect that the present state of affairs is only the natural outcome of a system which is radically defective; and it is obvious that before any good or any saving can be effected, there must be a complete revision of the existing regulations. As to the necessity for this, there cannot be two opinions. The question is, how is it to be carried out with the greatest gain to the State, but without unduly pressing on the sepoy, or encroaching

on what he believes to be his rights? It is believed that the formation of a reserve, in which service should be compulsory before any pension could be obtained, would be a simple solution of the problem. But to arrive at a clear understanding of *how* this would be the case, and to afford the means of comparing the system now obtaining with the one which it is proposed to substitute for it, it is necessary here to note briefly what the existing conditions of service and pension are. What are called "ordinary" pensions can be taken after 15 years, *provided* the candidate is declared by a medical committee to be "in every respect unfit for active service." The amount of the "ordinary" pension per mensem is, for a sepoy, Rs. 4; for a non-commissioned officer, Rs. 7; for a jemadar, Rs. 15; for a subadar, Rs. 30. After 40 years' service, a "superior" pension is granted,* subject to the same condition—unfitness for further service. The rates are, per mensem, for a sepoy, Rs. 7, for a non-commissioned officer, Rs. 12; for a jemadar, Rs. 25; and for a subadar, Rs. 50: or, after 40 years' service, the "ordinary" pension can be *claimed*, irrespective of fitness or unfitness. As a matter of fact, it is a most rare occurrence for a man to serve on for the "superior" pension, and those who do not see their way to early promotion "go in" for the invaliding committee, and the "ordinary" stipend, as soon after completing 15 years' service as may be. Thus it is that the pension list is such a heavy one. The bulk of the men transferred to it are of an age (about 37 years) when they ought to be in the prime of life, or at least not broken-down invalids: and, indeed, when they have passed the ordeal, and reache their homes, they generally *do* pick up in a wonderful way, and live to draw their pensions for many a long year, as the Controller General of Accounts—who could furnish some interesting statistics connected with this question—could doubtless certify. Evidently there must be something wrong in a system which produces such unsatisfactory results. At the same time in devising a remedy, the fact must not be lost sight of that nothing should be determined hastily, which would be at all likely to be productive of discontent. On the other hand, it is not unreasonable that Government in return for the immense sums which it expends upon military pensioners should expect to retain some claim upon their services if this can be done without pressing upon them unfairly. What is wanted, therefore, is the introduction of a scheme which, while it shall entail neither fresh expenditure on the part of Government, nor irksome duty on the part of the soldier, will not only place the system of pensions on a sound and satisfactory footing, but simultaneously provide a loyal and trained reserve of seasoned troops ready and able on an emergency to take their places in the ranks at a day's notice. The present time† is peculiarly opportune for the first formation of such a reserve, because owing to the recent augmentation of the army, every regiment is some 150 men over its establishment, and already orders have been issued to stop all recruiting, until through the natural course of events the strength of corps shall have again fallen to the normal number of 600 sepoys. This will take in most cases *at least* 4 or 5 years, and all that time Government will be paying for men that it does not require. Here then is an opportunity that ought not to be disregarded of effecting a large and immediate saving; and of inaugurating a measure at once popular and economical, and which would surely prove a source of strength of which it would be hard to over-estimate the value. At a rough estimate there are now some 7,000 men‡ who might at once be transferred to the reserve, and who would be glad to go. The resulting advantage to Government would be a direct and actual saving of upwards of Rs. 50,000 *a month*,§ and the establishment of the nucleus of a reserve force on which to draw in time of need. How much better would it not be to draft into the ranks of a regiment ordered on service, strong, healthy, and trained men, such as those in the first reserve would be, than to weaken other regiments by taking volunteers from them; or to cast about for recruits, who will not develop into reliable soldiers for months, and who will remain—a useless expense—long after the necessity which caused them to be hastily enlisted has passed away?

Before proceeding to sketch out the details for the formation and organization of such a reserve, one question must be asked and answered,—What will be the probable annual cost of maintaining and training it? Obviously, it will depend upon its strength, and that again must be governed by considerations of the probable uses to which it will be put. These will be discussed in another place. It is sufficient to remark here that a large reserve is neither necessary nor desirable. All that is wanted are enough men in the first reserve to bring regiments ordered on service up to their full war strength on the shortest notice: and in the second reserve, to take garrison or escort duties, when the regular troops are required elsewhere. For these purposes a comparatively small force would be required. Their monthly pay of Rs. 4 each need not be taken into consideration, because if they were not drawing it as reserve men, they would certainly be drawing it *as invalids*. But it is proposed to give each man, in addition, one month's pay when he comes in for his annual training, at the rate at which he last drew pay with his regiment. Assuming this to have been Rs. 9,—a fair average to take,—and allowing for *all* other expenses connected with his training (they will be all noticed in detail hereafter), it may be safely said that the annual cost of training the reserve will not exceed Rs. 12 *per man*, or say Rs. 1,20,000 *per annum* for a force of 10,000 men. In return for this outlay, the following advantages would be secured, and it is hard to say which of the two is the more important:—

1stly,—there would be ready for immediate use in emergencies, a seasoned and trained force of men; and all the delay and expense‖ of enlisting recruits at such times would be avoided; and

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* By a recent General Order, No. 31 of 1878, the *commissioned* grades are granted the "superior" rates of pension on the completion of 32 years' service instead of 40.

† Or as soon as our complications on the N.-W. Frontier are ended.

‡ The regular regiments of Bengal Infantry are alluded to

§ It is a fair assumption that these 7,000 men are in receipt of Rs. 9 each a month at present; then 7,000 by 9=Rs. 63,000 represents their monthly cost to Government. Their pay in the reserve would be Rs. 4 a month, therefore 7,000 by 4=Rs. 28,000 is what they would cost there. The difference, Rs. 35,000, would be clear saving—not at the cost of efficiency, but with increased efficiency. In 12 months the saving would amount to Rs. 4,20,000, say 4 lakhs, and this would go on for the next 4 or 5 years; not quite to the same extent, but diminishing in proportion to the number of men annually got rid of by deaths, discharges, &c. In these hard times these figures are worthy of attentive consideration.

‖ For example, in November 1878 orders were given to regiments to recruit up to a strength of 800 sepoys. Recruits began to come in about January, but more in the three following months. Peace was declared in May 1879, but up to this present moment (September) probably not one of those recruits is fully trained and ready to take his place in the ranks, and *now* they are not wanted! As to expense, take one item alone—the Rs. 30 kit allowance to each man: say 7,000 men were obtained, 7,000 by 30 = Rs. 2,10,000!

2ndly,—the pension list would be reduced to a *minimum;* malingering would be impossible; and no man would get a pension who had not honestly deserved it.

It may be fairly urged that these two advantages are well worth the expenditure that would be incurred; but at all events, for the next 10 years at least, the outlay would be actually more than covered by the saving that would be effected by transferring to the reserve *at once* the men in excess of the regular establishment, who were enlisted between November 1878 and May 1879. By that time the system would have had a thorough trial, and could afterwards be persevered in, or not, as might then seem advisable. But it is believed that by those best able to judge, not only will the necessity for the measures advocated be generally admitted, but also, the soundness of the scheme now put forward—whether considered from a military or a financial point of view—will be generally acknowledged.

THE RESERVE ORGANIZATION, PAY, &c.

The reserve should be divided into two classes: the first class, liable to be called out for active service; and the second class, for garrison duties only. As a general rule—the exceptions to it will be duly noticed—after 16 years' service with the colors, a man should go to the first reserve for 5 years; from it to the second reserve for another 5 years; and from it to the pension list *en permanence*. Assuming the average age at enlistment to be 19 years, the men of the first reserve would be all between 35 and 40 years of age—well fitted to undergo the hardships of a campaign—and a welcome accession of strength to the ranks of a regiment ordered on service.* The second reserve would consist of men between 40 and 45 years of age, quite capable of efficiently performing the duties that would be required of them. After having thus served Government for 26 years, the soldier would be fairly entitled to a pension, irrespective of his physical fitness or unfitness. He should get one at the same rates as are at present granted; and *at these same rates* should the respective grades be paid while serving in *either* class of the reserve. They are, for a sepoy, Rs. 4 *per mensem;* for a non-commissioned officer, Rs. 7; for a jemadar, Rs. 15; and for a subadar, Rs. 30. But *in addition*, while in the reserve, each man who comes in for his annual training, should receive one month's pay, including good conduct pay, at the rate at which he last drew it with his regiment. Except under the most special circumstances, which should be fully reported, and of course, in the case of sickness or disease contracted on active service, it should not be possible for a man to get a pension without first having served his full time with the colors, *and* in the reserve. To prevent any scheming or malingering, the following regulations are necessary:—A man of 6 years' service or under, who is considered physically unfit for further service, should be discharged at once without gratuity; if between 6 and 11 years' service, with a gratuity of 3 months' pay, including good conduct pay; and if over 11 years' service, but not over 16 years' service, with a gratuity of 6 months' pay, including good conduct pay. After 16 years' service, if not fit for transfer to the first reserve, he should be invalided *on a reduced pension*. The rates should be for a sepoy, *per mensem* Rs. 3; for a non-commissioned officer, Rs. 5; for a jemadar, Rs. 10; and for a subadar, Rs. 20. A man who fails to come in at the appointed time for his annual training, without being able to show a certificate of ill-health, signed by an *European* medical officer, should be struck off the rolls at once, forfeiting any arrears of pay† due to him at the time. It will be quite sufficient punishment, for with it goes all hope of pension. Should he produce such a certificate more than once, transfer him to the pension list forthwith on the *reduced* pension noted above. These rules are perfectly fair and reasonable, and are positively necessary to guard against malingering. If they are rigidly enforced, it will never be heard of. It would be often found inconvenient if the rule were made absolute, that *every* man on completing 16 years' service should go to the reserve. For instance, it would not answer to send away every commissioned and non-commissioned officer of that service; and as to the men, everyone knows the advantage of having a sprinkling of "old soldiers" in a regiment, trustworthy old fellows, valuable for their example, and so on; therefore it should be permissible to retain a small percentage for long service with the colors. Ten per cent. might with advantage be kept until they had completed 21 years' service, and another 5 per cent. for an indefinite period. There would be so few of these last that general officers at their annual inspections could easily have a look at them, and report on their general appearance and efficiency. As a reward for their long service, they should be transferred eventually direct to the pension list.

It will be observed that under these rules, the "superior" pensions are practically abolished, as hardly any one will be allowed to remain in the service for 40 years, and before that time they cannot be claimed. But, in reality, it is *very rarely*‡ that men even now serve on for the "superior" rates, so that practically no wrong would be done to anyone by doing away with them. But, as a matter of policy, and to prevent even the appearance of an injustice, the scale might be modified, both as regards length of service and rate of pension, thus—

To a sepoy, after 36 years, reckoning his service with the colors, in the reserve, *and the years he is on the "ordinary" pension list*§ — — — Rs. 6 a month.
To a non-commissioned officer, do. do. do. — „ 10 „

The commissioned grades should complete 32 years' service, as laid down in G. O. 31 of 1878 (but including their service in the reserve) before getting the "superior" pension of Rs. 25 and Rs. 50 for jemadars and subadars respectively.

* The special use of the first reserve would be to fill up the gaps in regiments ordered on service, caused by their having to leave behind their sick and recruits, &c., so that regiments proceeding to the front would arrive strong and efficient without a day's delay. Afterwards, the reserve men would be sent up to fill vacancies caused by casualties in battle, &c. It is not intended that the reserve should be embodied, and formed into separate and fresh regiments. This would require an elaborate and expensive organization, and European officers who are scarce enough already. The reserve would be called out by districts as required; not all at once. For instance, if Punjabees were wanted, it might be sufficient to call out the first reserve of the Ferozepore District. The men would be drafted into different regiments to bring them up to their full war strength. If more were wanted, another district could be mobilized, and so on.

† The reserve should be paid half-yearly in arrears, exactly as pensioners are.

‡ In my own experience, I do not know of more than two or three cases, and they were native officers.

§ This would be a liberal concession on the part of Government, but undoubtedly a very politic one. After all it would cost very little, for a man must be *at least* 55 years old before he would come in for the "superior" rates, thus: age at enlistment, 19 years; service with the colors, 16 years; in the first reserve, 5 years; in the second reserve, 5 years; on the "ordinary" pension list, 10 years,—total 55 years. How many natives live to such an age?

The training and equipment of the reserve.—Once a year—in March would be the most convenient time—medical committees should examine all the men in each regiment recommended for transfer to the reserve. Those passed by the committee as "fit for further service" should be struck off the effective strength of their corps on the 31st March. Each man should be given six months' advance of reserve pay, provided with a parchment certificate carefully filled up (see Appendix) and sent off to his home, it being explained to him that he must come into a cantonment (he will, before leaving his regiment, name the one nearest to his own village) in the following year for a month's drill, and to draw his pay. The exact date for assembling the reserve men for their annual training will vary in different parts of India. It should be fixed on with reference to the agricultural operations of the season, and so as not to take the men away from their villages at a time when they are wanted to look after their crops, &c. In Bengal and the N.-W. Provinces, the month of February would probably be suitable; in the Punjab March would be a better time. In any case, the precise date for assembling could be made known a month beforehand through civil district officers. On leaving his regiment each man should take with him the following articles of uniform and equipment, and while he is in the reserve, he must keep them up at his own expense:—1 khakee turban, 1 blouse, 1 pair of pantaloons, 1 pair of putties, 1 pair of English ammunition boots, 1 great-coat, 1 havresack and 1 water-bottle. Then, in the event of his having to go on active service at short notice, he will have all that is actually necessary, and could start at once. Any warm clothing, and any amount of it, can be worn under the blouse, so that it is suitable for summer and winter wear. Commanding officers of regiments will send to the staff officers of each cantonment concerned a descriptive roll (see appendix) of all men transferred to the reserve who have chosen that particular cantonment as their training station. The staff officer will copy all the particulars from the rolls, in the order they reach him, into a book, keeping one book for the first reserve, and another one for the second reserve. About one month before the date fixed for the assembling of the reserve, a selected staff corps officer should be told off specially in each district by the Adjutant General's Department, to make all arrangements for the annual training. The two books above referred to being made over to him; he will first ascertain about how many men will come in; next, a site for an encampment having been fixed, he will obtain (from the regiments, European and native, in cantonments) the tents necessary to accommodate the number of men expected, and have them regularly pitched—those for first reserve men being pitched apart from those for the second reserve men. Arrangements should also be made for one or more Bunniah's shops to be opened in the camp. The men cannot be allowed to spread themselves all over the place in search of supplies. Latrines must be prepared in a suitable vicinity.* An estimate must be made out of the amount required to pay the men, and sent in to the circle paymaster, with a receipt for the amount. He will keep the receipt, but (to save office work) return the estimate (see Appendix) with a cheque for the money required. As the men are paid (a day or two previous to breaking up the camp,) they will each sign for their pay† on the original estimate, and the officer after signing himself the certificate at foot, and obtaining the countersignature of the officer commanding the station, will return it to the paymaster with any surplus there may be. At the same time, each man's parchment certificate must be signed up, and the office books completed up to date. In each training station a bell of arms should be built sufficiently large to contain all the rifles and accoutrements of the reserve men of that district. A good place for it would be in the lines of the native infantry regiment quartered in the station in whose charge it would be, and a good non-commissioned officer, with men to help him—who might be paid a small monthly sum for the work—should be told off to look after the arms, and keep them always clean and in good condition. As the reserve men begin to come in, they must be told off into sections and squads, under their own commissioned and non-commissioned officers, their rifles and accoutrements issued to them, quarters assigned, and duties explained to them. A few drill instructors can be borrowed from the regiments in cantonments, and the officer in command should from the very first keep them well at it, and make the most of the short time at his disposal. The chief points to attend to are marching and wheeling, and particular attention should be paid, especially as regards the second reserve men—to the strict performance of guard and sentry duties. Some time must be devoted to firing exercises, position drills, and target practice. For the latter it will be quite sufficient if the first reserve men fire 30 rounds each, 10 standing, 10 kneeling, and 10 lying down; and the second reserve men—20 rounds each, 10 standing and 10 kneeling, or in any position.‡ The young officers of the native infantry regiments in the station should assist in all these drills and practices. During the last week of their training, the reserve men should be put into the ranks of the regulars, and drilled with them. Altogether one month's drill in the year, under good and zealous superintendence, should be quite sufficient to keep the reserve men well up to the mark. After they are dismissed, the officer in charge should submit a brief report for the information of army head-quarters, detailing the number that came in, the arrangements made for them, their general appearance, and state of efficiency and discipline, &c., &c. He should be paid Rs. 200 for this duty, out of which he will provide his own writer and stationery. He will have a great deal to do, and if he works zealously and well, will have well earned the allowance.

Such are the chief features of a scheme which it is believed would increase immensely the efficiency of the army, and reduce expenditure at the same time. It must be admitted that the present enormous annual outlay on military pensions is a burden on the finances of the country grievous to be borne; and it cannot be contended that the present system of augmenting the army on the outbreak of a war is a satisfactory one, considering—to say nothing of the cost—that the men so obtained, no matter how urgently they may be wanted, cannot be held to be efficient soldiers, for at least a twelve-month after enlistment. The scheme now put forward strikes at the root of the evils inseparable from

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* Any sick will be put for treatment into the native infantry hospital.

† On this occasion it would be six months' reserve pay, *and* one month's training pay. On the 1st October in each year they would come in to receive the pay for the six preceding months. It should be obtained and issued to them in the same way exactly, by the same officer; or if not available, by another one told off for the purpose, but the work should not be thrown on the staff officer of the station.

‡ Ammunition, balled and blank, to be obtained on indent from the native infantry regiment in garrison.

the present system of granting pensions, and simultaneously provides a trained and reliable reserve available in time of need on the shortest notice. Time and experience would doubtless necessitate some modifications of the details herein advocated, but in the main, it is believed they rest on a sound basis; and they are submitted to a critical public in the hope that by inducing healthy discussion, they may lead to a much needed reform, and conduce to what is the desire of us all—the good of the army, and the welfare of the State.

H. D. HUTCHISON, *Captain,*
40th (The Shahjehanpore) Regt., N. I.

Appendix.

[Form No. 1.]

Parchment Certificate, Native Army Reserve, and Pension List.

Regimental No. Rank Name Regiment, Native Infantry.
Village Tehseel District
Date of enlistment Total service with the colors
Transferred as a to the reserve of the district,
on the of 18 . Rate of pay, including G. C. pay, last drawn
Rs. per mensem.

Next-of-kin or person to whom arrears of pay or penison are to be paid at his decease.

[*Front.*]

This is to certify that No. rank name regiment, native infantry, having been passed as "efficient" by a medical committee assembled at on the 18 , was transferred to the reserve of the district, as a with effect from the 18 . He will be entitled to receive reserve pay at Rs. per mensem, and training pay at Rs. per mensem. He has this day received from me an advance of reserve pay amounting to Rs. and has thus been paid up to, and for, the day of 18 .

(*Station and Date.*) (*Signature of Officer Commanding Regiment.*)

[*Back.*]

(To be filled up by staff officers concerned.)

Particulars of Transfers and Payments.

No.	Rank.	Name.	Regiment Native Infantry.

Transferred.				Last payment made.			
From	To	On the	Authority for transfer.	On what date.	To what Date.	Amount.	Signature.

[Form No. 2.]

THE REGIMENT, NATIVE INFANTRY.

Descriptive Roll of men of the above Corps transferred to the Reserve of the District.

Succession Nos.	Regimental Nos.	RANK AND NAMES.	Castes.	Resident of			Present Age.	Present Height.	Indelible marks.	Date of Enlistment.	Total service with the Colors.	Date of transfer to the Reserve.	In what rank transferred, and authority	Rate of monthly pay.		General Character.	Next-of-kin or other persons to whom arrears of pay, &c., are to be paid, in case of death.
				Village.	Tehsee.	District.								Last drawn in Regiment	While in the Reserve		

(*Signature of Adjutant.*) (*Station and Date.*) (*Signature of O. C. Regiment.*)

[Form No. 3.].

Estimate and Acquittance Roll of the men of the First / Second *Army Reserve of the* _____ *District for the half-year ending* _____ *18* .

(*Station.*) (*Date.*)

Succession Nos.	Regtl. Nos	Rank & Names.	Estimated Requirements.				Deduct charges,		Amount actually paid to each man.	Signature of the men.	Surplus returned to Paymaster.
			Six months' Reserve pay		One month's training pay.	Total.					
			@	Amount.							

NOTE.—This form will be carried over as many sheets as may be necessary, and the certificates written at the end of the last sheet.

NOTE.—In forwarding the estimate, a receipt for the amount asked for must be sent with it on a separate piece of paper.

Grand Totals, Rs. ...

I hereby certify that the men named in this roll were all paid in my presence the sums specified opposite each man's name.

(*Signature of Officer in charge.*)

I hereby certify that the men named in this roll were paraded before me, and in my presence stated that they had all received their pay, and arrears of every kind due to them, for the half-year ending 18 .

(*Signature of O. C. Station.*)

Memorandum by MAJOR A. VIVIAN *on a Reserve Scheme for Native Cavalry.*

I.—Strength required for ordinary work.

I.—Taking the work cavalry regiments have to do on the frontier, I think the old scale of 420 sowars per regiment is the lowest at which the work can be carried on satisfactorily.

II.—Available for the reserve.

II.—The late augmentation of 10 sowars per troop might be absorbed in the reserve.

III.—Service with the regiment.

III.—I would allow men who have completed ten years' service to volunteer for the reserve: their names to be entered on a register, if approved of by their commanding officers, and they to be drafted into it as vacancies occur amongst their class men of the reserve who have completed fifteen years' service, *viz.*, ten with the regiments and five with the reserve, to be examined before the nearest invaliding committee, and if not considered fit for active service to be transferred to the pension establishment.

IV.—Unfit for active service to be pensioned.

V.—Uniform.

V.—The men to keep with them their uniform and sword. Their carbines to be kept at head-quarters. I don't think it would be necessary to keep up their tents, as until they could be made up we could easily pack four men in a tent instead of two.

VI. Their pay to be Rs. 4 a month, in addition to their good conduct pay, which they should retain.

Should it be decided that they should keep up their horses, an addition of Rs. 2 a month would be required for them to meet their *chunda* subscriptions, besides their horse allowance, which might be fixed at Rs. 8 a month.

VII.—It should be drawn in the regiments and remitted to them quarterly through district officers. The men to apply for it personally at the local treasuries, that they may be identified as the individuals referred to.

VIII.—A central place should be fixed on for their annual training, which should not be less than a month; for our regiments, Jhelum would answer well.

If dismounted, railway passes should be granted to men going and returning to the training place; if mounted, passes for men and horses should be given to men, having to come from North-Western Provinces or further, and men of the Punjab should march there. An officer and some drill instructors to be sent from the regiment to train them. A reserve for native cavalry seems to be at the best an unsatisfactory sort of a thing.

To make them keep up their horses would be no saving to Government worth speaking of; and without their horses, their services would be useless, on war breaking out, for at least three months; it would take quite that time to buy sixty horses and get them to head-quarters; and then a month would be required for training them sufficiently to make them of any use in the ranks.

A. VIVIAN, *Major,*
Commanding 3rd Punjab Cavalry.

APPENDIX XXXIX.

Opinion of His Royal Highness the Duke of Cambridge on the Staff Corps System.

Extract from His Royal Highness the Duke of Cambridge's answer to the questions proposed by the Commissioners appointed (15th July 1858) to inquire into the organization of the Indian Army. Appendix No. 73, page 221.

Bengal Native Army.—For the Bengal army, therefore, I would at once place the officers composing it upon one general list of seniority, fixing the numbers of each grade, and allowing them to go up from the ensign to the colonel in regular and unbroken seniority. Cases for selection to higher rank may at times arise and might be sanctioned, but these should be considered the exception to the general rule, which, as heretofore, should be seniority only. From this list the selections should be made for officers to the regular infantry regiments, the irregular cavalry and infantry regiments, the staff, both civil and military, the police corps,—in short, for all the various employments which have hitherto been open to the officers of the Indian army. I do not mean to confine my selections for irregular or special duties to this general service list; officers will equally have to be selected from the European corps for these various staff duties, but a considerable proportion of them would, as a matter of course, devolve to the officers of the purely local and native service, and these would all be selected from the list above referred to. It is in this list that I would equally place the supernumerary officers of the late Company's army, for whom at present no employment can be found, and whom I propose to attach to the European regiments of the line. Their promotion would be thus ensured, and they would rise in regular gradation with the rest of their brethren.

A staff list or corps has been advocated by many. Such a corps might be formed, but I am myself on the whole rather opposed to it, and I think the general list above advocated will do away with the necessity for it, as a proportional number of officers may be always borne on that list with a view to their being employed on the staff.*

It may be argued that all *esprit de corps* would be lost by having a general list for the native army. I cannot concur in this view, for in the plan suggested I do not advocate a constant removal of officers from their regiments. I contemplate that, as far as practicable, officers will be retained for duty with the regiment to which they were originally appointed, unless specially selected, from superior qualifications, for service on the staff with irregular corps or with the police . . . . . .

GEORGE.

* In the European regiments the officers employed away from their regiments should be seconded after they have been absent from their corps for six months.

APPENDIX XL.

Distribution Returns of Officers of the Staff Corps and Indian Army of the three Presidencies.

Distribution Return of Officers of the Staff Corps in the Bengal Presidency on the 1st July 1879,—exclusive of General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance.

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ	Police.	Departmental staff.	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. G. O. No. 797 of 1st August 1872.	Unemployed on furlough	Total.
Lieutenant-Colonels	16	89	50	19	27	22	7	2	232
Majors	12	128	85	13	15	4	.....	2	259
Captains	6	120	46	10	17	11	.....	3	213
Lieutenants (including those finally admitted in India pending sanction of Secretary of State)	...	212	12	7	...	.....	.....	..	231
Subaltern probationers	...	61	...	...	...	.....	.....	...	61
Total ...	34	610	193	49	59	37	7	7	996

NOTE.—There are also 74 General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance; of these 8 are employed on the military staff, and 3 in civil or political employ. Officers of this class without employment are permitted to reside where they please.

Distribution Return of Officers of the Staff Corps in the Madras Presidency on the 1st April 1879, exclusive of General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance.*

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ	Police.	Departmental staff.	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. O. No 797 of 1st August 1872	Unemployed on furlough.	Total.
Lieutenant Colonels	17	95	38	9	13	...	1	7	180
Majors	9	95	57	26	11	5	... ..	6	209
Captains	1	32	14	2	4	1	... ..	...	54
Lieutenants (including those finally admitted in India pending sanction of Secretary of State)	...	35	2	...	1	.....	.. ..	...	38
Subaltern probationers	...	45	...	.		.....	... .	..	45
Total ...	27	302	111	37	29	6	1	13	526

NOTE.—There are also 49 General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance; of these 6 are employed on the military staff. Officers of this class without employment are permitted to reside where they please.

* The Madras Army List of 1st July 1879 not having come to hand.

Distribution Return of Officers of the Staff Corps in the Bombay Presidency on the 1st April 1879, exclusive of General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance.*

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ.	Police.	Departmental staff	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. G. O No 797 of 1st August 1872	Unemployed on furlough.	Total.
Lieutenant-Colonels	13	60	28	3	13	1	...	1	119
Majors . . .	11	56	26	9	5	1	. .	5	113
Captains	...	51	20	6	6	... ..	. ...	...	83
Lieutenants (including those finally admitted in India pending sanction of Secretary of State)	...	63	9	3	4	.....	.....	...	79
Subaltern probationers	...	45	...	...	. .	.....	.....	...	45
Total . .	24	275	83	21	28	2	. ....	6	439

NOTE.—There are also 25 General Officers and Lieutenant-Colonels in receipt of the Colonel's allowance; of these 1 is employed on the military staff, and 6 in civil or political employ. Officers of this class without employment are permitted to reside where they please.

* The Bombay Army List of 1st July 1879 not having come to hand.

Distribution Return of Officers of the Indian Army in the Bengal Presidency on the 1st July 1879, exclusive of General Officers and Colonels in receipt of the Colonel's allowance.

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ.	Police.	Departmental staff.	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. G. O. No. 797 of 1st August 1872.	Unemployed on furlough	Total.
Lieutenant-Colonels ...	6	19	10	2	5	12	6	5	65
Majors	3	10	7	1	1	3	...	...	25
Captains	7	85	36	4	9	15	...	3	159
Subalterns	...	..	..	.	...	...	...	...	...
Total . .	16	114	53	7	15	30	6	8	249

NOTE.—There are also 54 General Officers and Colonels in receipt of the Colonel's allowance (including 20 placed on the Retired List under the Royal Warrant of 31st December 1877, but whose names are retained on the regimental list in italics); of these one is employed on the military staff. Officers of this class without employment are permitted to reside where they please.

Distribution Return of Officers of the Indian Army in the Madras Presidency on the 1st April 1879, exclusive of General Officers and Colonels in receipt of the Colonel's allowance.*

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ.	Police.	Departmental staff.	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. G. O. No. 797 of 1st August 1872.	Unemployed on furlough	Total.
Lieutenant-Colonels	...	18	9	2	...	3	1	1	34
Majors	1	7	1	...	...	...	...	..	9
Captains	6	60	9	7	2	2	..	...	86
Subalterns	...	.	...	..	.	...	.	...	...
Total ...	7	85	19	9	2	5	1	1	129

NOTE.—There are also 42 General Officers and Colonels in receipt of the Colonel's allowance (including 15 placed on the Retired List under the Royal Warrant of 31st December 1877, but whose names are retained on the regimental list in italics). Officers of this class without employment are permitted to reside where they please.

* The Madras Army List of 1st July 1879 not having come to hand.

Distribution Return of Officers of the Indian Army in the Bombay Presidency on the 1st April 1879, exclusive of General Officers and Colonels in receipt of the Colonel's allowance.*

Rank.	Military staff.	Holding appointments in native regiments.	Civil or political employ.	Police.	Departmental staff.	Field officers on general duty, and Captains and Subalterns attached to regiments in excess of complement.	Unemployed officers permitted to remain in England under terms of para. 2 of G. G. O. No. 797 of 1st August 1872.	Unemployed on furlough	Total.
Lieutenant-Colonels ..	...	11	...	..	1	3	...	1	16
Majors	...	2		.	1	..	...	...	3
Captains	1	33	7	1	1	1	...	..	44
Subalterns	...	...	..	...	...	...	...		..
Total .	1	46	7	1	3	4	...	1	63

NOTE.—There are also 24 General Officers and Colonels in receipt of the Colonel's allowance (including 9 placed on the retired list under the Royal Warrant of 31st December 1877, but whose names are retained on the regimental list in italics). Officers of this class without employment are permitted to reside where they please.

* The Bombay Army List of 1st July 1879 not having come to hand.

APPENDIX XLI.

Establishment of Officers based on the proposals of the Commission.

A.—Number of Officers required for the staff exclusive of Artillery and Engineers.

Appointments.	Bengal Army Corps.	Punjab Army Corps.	Madras Army Corps.	Bombay Army Corps.	Remarks.
1 Commander-in-Chief in India ...	...	...	...	...	Not entered in columns, as these officers will be of higher rank than Lieutenant-Colonels.
4 Lt.-Genls. Commanding Army Corps...	...	...	...	...	
8 Officers Comdg. 1st class districts ...	...	...	...	...	
8 Do. 2nd do. ...	...	...	...	...	
9 Do. 3rd do. ...	...	...	...	...	
War Department	3	3	2	2	
Staff Colonels Commanding	2	1	1	1	
Staff of Commander-in Chief in India ...	4	4	4	3	
Personal staff of ditto	2	1	1	1	
Staff of head-quarters of army corps ...	8	8	8	8	
General staff of do. ...	11	10	10	11	
Personal staff of Lieut.-Generals	3	3	3	3	
Do. A. C., 1st class district...	2	2	2	2	
Total ...	35	32	31	31	
Divide Total by 2 ...	$17\frac{1}{2}$	16	$15\frac{1}{2}$	$15\frac{1}{2}$	*N.B.*—Half British army officers and half officers of the Indian army.
Add 20 per cent. for reserve ...	$3\frac{1}{2}$	3	$3\frac{1}{2}$	$3\frac{1}{2}$	
Total Staff Officers, Indian Army ...	21	19	19	19	
Commissariat Department	27	24	24	24	
Accounts Department	9	9	9	8	
Transport	4	4	3	3	
Half staff of Govrs. and Lt.-Governors ...	6	2	3	3	
	46	39	39	38	
Add 20 per cent. for reserve except for commissariat which has already been provided for	4	3	3	3	
Total Departmental Officers, Indian Army	50	42	42	41	

Number of Officers required for regimental duty, &c.

Army Corps.	Regiments.	Lieutenant-Colonels.	Majors.	Captains.	Lieutenants.	Remarks.
Bengal.	6 Regiments of Cavalry ...	6	6	24	30	
	24 „ „ Infantry ...	24	24	72	96	
	Half number of officers required for Viceroy's Body-guard, commandants of forts, &c. ...	1	1	2	1	
	Volunteer Corps ...	...	1	4	..	
	Total ...	31	32	102	127	
Punjab.	13 Regiments of Cavalry ...	12	14	47	56	Includes Queen's Own Guides at Hoti Murdan, and two Guide Corps at Kuram and Tonk, with fewer officers.
	27 „ „ Infantry ...	26	29	79	102	
	Volunteer Corps ...	...	...	2	...	
	Total ...	38	43	128	158	
Madras.	2 Regiments of Cavalry ...	2	2	8	10	
	25 „ „ Infantry ...	25	25	75	100	
	Hyderabad Contingent Cavalry ...	4	2	2	8	
	„ „ Infantry ...	6	3	3	6	
	Reserve for Hyderabad Contingent	2	1	1	3	
	Nair Brigade ...	...	2	1	..	
	Governor's Body-guard ...	...	1	...	1	
	Volunteer Corps ...	1	1	1	...	
	Total ...	40	37	91	128	
Bombay.	$6\frac{5}{8}$ Regiments of Cavalry ...	5	7	21	30	Includes one Guide Corps at Pishin, and Aden Troop, with fewer officers.
	25 „ „ Infantry ...	24	25	72	96	
	Irregular Regiments ...	7	7	5	14	
	Reserve for „ ...	1	2	1	3	
	Governor's Body-guard ...	...	1	...	...	
	Volunteer Corps ...	1	1	2	...	
	Total ...	38	43	101		

B.—Statement shewing the present and proposed numbers and distribution of Officers of Staff Corps and Indian Army.

		Ranks.	Army and Garrison Staff.	Regiments or available for regimental duty.	Departmental staff employ.	Total.	
Bengal ...	Present ...	Lieutenant-Colonels...	20	175	33	228	
		Majors ...	15	141	16	172	
		Captains ...	18	241	27	286	
		Lieutenants ...	...	268	10	278	
		Totals ...	53	825	86	964	
	Proposed—Bengal Army Corps.	Lieutenant-Colonels...	5	31	8	44	Lieutenant-Colonels 93
		Majors ...	6	32	8	46	Majors ... 102
		Captains ...	5	102	15	122	Captains ... 269
		Lieutenants ...	5	127	15	147	Lieutenants 320
		Totals ...	21	292	46	359	784
	Punjab Army Corps.	Lieutenant-Colonels...	5	38	6	49	
		Majors ...	6	43	7	56	
		Captains ...	6	128	13	147	
		Lieutenants ...	2	158	13	173	
		Totals ...	19	367	39	425	
Madras ...	Present ..	Lieutenant-Colonels...	13	134	17	164	
		Majors ...	9	118	12	139	
		Captains ...	8	93	6	107	
		Lieutenants ...	...	80	1	81	
		Totals ...	30	425	36	491	
	Proposed ...	Lieutenant-Colonels...	5	40	6	51	
		Majors ...	6	37	7	50	
		Captains ...	5	91	13	109	
		Lieutenants ...	3	128	13	144	
		Totals ...	19	296	39	354	
Bombay ...	Present ..	Lieutenant-Colonels...	13	80	10	103	
		Majors ...	10	61	9	80	
		Captains ...	3	80	7	90	
		Lieutenants ...	...	108	5	113	
		Totals ...	26	329	31	386	
	Proposed ...	Lieutenant-Colonels...	5	38	6	49	
		Majors ...	5	43	7	55	
		Captains ...	5	101	12	118	
		Lieutenants ...	4	143	13	160	
		Totals ...	19	325	38	382	

	Total.	
	Increase.	Decrease.
Lieutenant-Colonels	.....	302
Majors	.....	184
Captains	13	.....
Lieutenants	152	.....
	165	486
Total Decrease	.....	321

Explanatory Note.

1. In these tables all officers in civil and political employ—numbering 562—are omitted.

2. The various ranks, as at present existing in local corps, have been allotted thus, for the future distribution—

Hyderabad Contingent—All ranks of officers to be drawn from the Madras Army Corps.

Local Corps in Rajputana and Central India—Half the number of officers to be drawn from Bengal Army Corps and half from the Bombay Army Corps. Allotment of officers has been made accordingly.

APPENDIX XLII.

Memorandum regarding pensions for the British Officers of Her Majesty's Indian Army, by Colonel H. Boisragon, 4th Sikhs.

1. The alteration of the above is also, it is understood, in contemplation by the Indian Government at home and in this country.

2. It might be based on two grounds in future:—

(*a*) either more pay (as at present received) and less pension, or

(*b*) less pay (than they are in receipt of now) and a larger pension.

Of the two, probably the latter would be financially cheaper (an actuary would easily decide this on the principle of the insurance companies and the chances of life and death in this climate) and more acceptable to them.

3. Pensions—on which each family-man might exist—to commence sooner than at present, thus inducing officers to avail themselves of them at a comparatively early age,—thus relieving what is even now an enormous annual retiring expenditure, which will be increased yearly as field officers are added to this list (as at present), and be of huge proportion ere long.

4. It may here be instanced that captains of the Royal Service obtain now approximately larger pensions than those of Her Majesty's Indian Army, *viz.*, £200 per annum after 20 years' actual service, *i. e.*, with all leave included, which is without limit, if their services can be dispensed with, and which they may have passed entirely at home or in the Mediterranean; whereas those in the Indian Army must serve for same period entirely in India before they are entitled to the minimum pension as captains of £191-15-1½ and lieutenants of £118-14-1½ per annum, based on furlough rules, 1795-96, and Pay Code for India, 1793-96; and now (1879) the value of money is not what it was in 1796. With education and all the *absolute necessaries of life* advanced in price, it is simply impossible to live now on £191 a year, as was done when these rules were framed. A bachelor might struggle to exist; it would be hopeless for a married man to attempt it, and with a family an impossibility. Setting aside the score of humanity, it is to the advantage of the State that its pensioned officers, after giving up the best years of their life in serving it zealously in an alien country and climate, with the necessary separation from their families, perhaps for years, should have the wherewithal to retire for the remaining years of their lives in the enjoyment of a pension adequate to their *absolute wants* (luxuries are not and cannot be expected), and sufficient to maintain the dignity of their position as gentlefolk, officers of so noble a profession and servants of a great Government.

More still to those (officers lately in the Indian Service) of all ranks but now in the Royal Artillery, Engineers, and the new line regiments of cavalry and infantry, *with all absence on leave counting as service for pension.*

5. To those now in the service it might be offered on the following scale:—

On 25 years' actual service, and henceforth as the new pension rules, *all leave included* ...	...	...	£ 500 a year.	*
After 30	ditto	...	...	£ 600	„	*
„ 35	ditto	...	...	£ 700	„	*
„ 38	ditto	...	...	£ 800	„	*

* A small percentage from monthly pay might be subscribed to by officers towards these pensions, rendered compulsory as for civilians at present, and until within lately, from medical officers. A small sum would not be felt, and if received by the individuals, only spent. The aggregate, with its interest, would also be of some slight assistance to the public funds.

Promotions are after 12 years, captain; 20 years, major; 26 years, lieutenant-colonel, 12 years from which date "off-reckonings" of £1,125 a year, *i. e.*, 38 years' full service, deducting 8 years' leave, if it can be obtained.

It may be admitted that the above are very high rates; but if it is a matter of expediency, and it is here—a judicious liberality is the best policy, the object being to discourage the waiting on for the "off-reckonings" of £1,125 per annum after the maximum service of 38 years, which before long, under the present ruling, will entail a vast yearly outlay; and this, it is believed, can best be attained (in fact the only way) by—

(*1st*) offering sufficient and early pensions,

(*2ndly*) with all leave included.

6. To officers now over 32 years' service, a further inducement might be presented of a £1,000 a year; the same to those up to 34 years and beyond, with the addition of the present "bonus" scheme (*i.e.*, £456 lump-sum, or its equivalent annuity), the £1,000 a year or the "bonus" method being optional: this latter to be left open for the next financial year (1884), to suit the circumstances of those who will assuredly avail themselves of it according to their exigencies within that time; but it should be a *sine quâ non* that all leave counts as service, the present restriction against it being, it is believed, one of the chief reasons why many do not at once avail themselves of the great and generous boon.

As collateral subjects to the above, the following points might appropriately be introduced here:—

1st.—Six months' leave and under the same pay conditions to England or to any part of the world as is now only granted to all parts of India, China, the Cape, Australia and New Zealand—in fact, to most parts of the world (a very liberal margin), but excluding England, which is the chief object with most people, benefiting them more in mind and body as Government servants, the least expensive journey to and fro, and the easiest of recall if their services are suddenly and urgently required.

2ndly.—To extend the boon of the two shillings-in-the-rupee payment in place of the rate of exchange to all officers proceeding on furlough to Europe, at present granted to certain officers only within specified dates.

3rdly.—To permit officers to make home family remittances annually to the full extent they can afford, instead of limiting it to fixed sums according to rank, as at present. Home payments to be made at the Government rate of exchange; though, of course, it would enhance the boon if it was granted at two shillings per rupee.

7. Further inducements might be offered, both to encourage retirements and to continue to reside in this country, when their pensions would be spent for its benefit, in the grant of leaves under conditions not detrimental to Government, and at the same time on advantageous terms to themselves.

8. Perhaps it would prove more successful, certainly to officers with large and growing up families, especially of sons—if the same were offered in Australia and New Zealand and the Cape, extending it even to Canada, where better education would be obtained for daughters and sons and, when grown up, their services still be utilized on their farmsteads: the advantage too of being nearest to the "old country" would not be one of the least of them.

SHEKH BUDIN,
The 17th July 1879.

H. BOISRAGON, *Colonel,*
4th Sikhs.

APPENDIX XLIII.

Papers relating to the Medical Service in India.

Remarks by LIEUTENANT-COLONEL D. B. YOUNG, *Officiating Controller of Military Accounts, Bombay.*

The question of the Medical Department has, I believe, been the subject of much correspondence and very careful consideration; I therefore approach it with diffidence.

My proposal is, that there should be only one Medical Department, and that purely Indian. To accept any other solution would involve the separation of the army from the civil duties; and for the latter an exclusive Indian establishment, with administrative heads, would be required.

Hence there would, in fact, be still a dual establishment, though perhaps not quite so prominent as now.

I believe it has been proposed to have station hospitals under the Army Medical Department, by which all Europeans, including the officers and their families, of native regiments should be treated, the men of the native regiments being treated more immediately by a superior class of native medical officers or subordinates.

At present the tour of an officer of the Army Medical Department lasts five years, during which time he naturally attains but a modicum of Indian experience and a very slight insight into native habits or feelings. His knowledge also of climatic and local influences will be limited; and at all times he is an unsettled man, possessed with an earnest desire, unless he be a very senior officer with large allowances, for the completion of his tour of foreign service.

Formerly, when the regimental system for medical officers obtained, it could be argued that it would be against every rule of discipline or hygiene to cause a regiment newly arrived from England to be medically treated by an officer personally unacquainted with the history of each man. But as a regiment is now liable to receive an entirely fresh medical staff on arrival in the country, it may well be held that it would benefit by being treated by members of a body who looked on India as their home and who had studied the diseases peculiar to the country.

I have heard it contended against this proposal that a medical man who may be long from England is apt to allow his professional knowledge to rust, and not to keep himself up to the home standard. But I question greatly whether the Indian Medical Service, as a body compares disadvantageously in professional knowledge with its sister service.

In fact, without making any invidious comparison, it may be considered that the generality of European officers would prefer being treated by an Indian medical officer to one of the Home service.

The Home service has naturally a right to demand that they should have a share of the administrative appointments in India as long as many of their younger ranks are largely employed in India. But by making all service in India to appertain to the local medical service, the difficulty of dual heads would disappear; and the withdrawal of the demand for officers for India from the Home service would at once release a large body for employment in the Home and Mediterranean stations.

At present the Indian service, possibly from its being local, is a favorite, and has no difficulty in obtaining satisfactory recruits. The contrary is the position of the Army Medical Department. The placing of all troops in India under the Army Medical Department would not appear to remove any drawbacks to the Home service. Probably it would only aggravate them—by causing a larger number of officers to be required. And yet it might tend to check the present readiness of students to compete for the Indian service, and would most likely place the Indian Government in a very difficult position.

Were all duties given to the Indian Medical Service, then the European officers and their families of native regiments might be attended to by the staff of the station or garrison hospital, the native soldiers being treated by a superior class of native medical men—a constantly increasing and satisfactory body, who could be supervised by either the administrative or station hospital medical men.

The necessary enlargement of the Indian Medical Service would not, I think, be difficult, as volunteers for the Army Medical Department might be called for.

D. B. YOUNG, *Lieut.-Colonel,*
Offg. Contlr. of Mily. Accts., Bombay.

No. 2401, dated Kurrachee, 5th September 1879.

From—Surgeon-Major T. G. HEWLETT, C.I.E., Acting Deputy Surgeon-General, Sind Division,

To—The Secretary, Army Organization Commission, Simla.

I have the honor, in obedience to the instructions received by telegram from General R. Phayre, C.B., to forward to you, for submission to the Army Organisation Commission, the following remarks on a scheme I have worked out showing what reductions are, in my opinion, possible regarding the expenditure entailed on the Government by the medical administration of this presidency.

2. In the first place I am strongly of opinion that there should be only one medical service for all India. It is conceded, I believe, that the strictest examination is required from candidates for the Indian Medical Service, and therefore it is a fair presumption to say that the best men come into it. The men who join the Indian Medical Service know that they have to pass their lives in India. They study the languages and are well able to estimate the effects of climate on Europeans; they know the dangers to be avoided on first coming out to the country, and their experience from not being exclusively employed among Europeans is varied and extensive.

3. I think, then, that a British regiment on first landing in the country should be met by officers belonging to the Indian Medical Department who would be prepared to give practical advice to officers commanding as to the medical arrangements and sanitary precautions so necessary to be taken. The Indian Medical Department should, in fact, be responsible for the medical arrangements of every British regiment serving in India from the date of its landing in the country until it re-embarked after its tour of service in it.

4. The abolition of a distinct service for European troops would do away with the necessity for having the expensive, and as I hold, utterly unnecessary, dual administrative staff. What can be more absurd and expensive than that a Deputy Surgeon-General of the British Medical Department should visit the same stations on tour for the purpose of inspecting hospitals, &c., connected with the European branch of the army, which the Deputy Surgeon-General of the Indian Medical Department has to visit for the purpose of inspecting hospitals, &c., belonging to the native branch of the army?

5. It must be remembered that the duties of a Deputy Surgeon-General of the Indian Medical Department are by no means exclusively military duties. These officers superintend, in addition to the military charges, all civil hospitals, jails, lunatic asylums, and dispensaries in their respective divisions. They are in constant communication with the chief civil officers of the district over which they preside. Their opinion and advice are sought on the appearance of epidemic disease occurring in the districts, and thus from having this civil work to do in addition to their military duties, they possess an intimate knowledge of the state of the public health in districts surrounding military stations, and such knowledge is especially valuable in enabling them to give timely warning to the military authorities and to offer advice regarding the measures necessary to be taken to protect the troops from an invasion of epidemic disease. A Deputy Surgeon-General with only military duties to perform would, in my opinion, have very little work to do, but with the duties I have shown as now performed by the Deputy Surgeon-General of the Indian Medical Department, his time is fully occupied and the Military Department gains considerably by the present arrangement as regards Deputy Surgeons-General of the Indian Medical Department. For example, at Kurrachee, I am able, from having the dispensaries in the native town and civil hospital under my immediate supervision, to tell at once how the state of the public health is likely to affect the troops in camp. I know at once where epidemic disease is likely to attack and advise precautionary measures accordingly.

6. If this great and unnecessary expense of a dual administrative staff were spared to the Indian tax-payer, there would be no loss of efficiency in the superintendence of the medical arrangements for the European army. This work was performed by the administrative staff of the Honourable East India Company's service, and it could be—and in my opinion, in due regard to the financial condition of the country, it ought to be—again performed by officers of the Indian Medical Department. It is a matter of notoriety that the British Medical Department has not a sufficient number of medical officers to fill its ranks. In the present war in South Africa nearly half the executive medical officers are civilians, and in like manner in England at some of the largest military stations—Chatham for example—the military medical duties are performed by civilian medical men. If the British Medical Department were withdrawn from India, the dearth of medical officers in the British army would for the time cease.

7. A saving in the item of passages would be effected, as medical officers in the British service now come out for a tour of five years and Government has to pay not only their passage out but home as well.

8. Another point not to be overlooked is the great disproportion Surgeon-Majors in the British Medical Service bear to Surgeons. By the last Bombay Army List I find there are in this presidency 39 Surgeons-Major and only 26 Surgeons belonging to the British Medical Service. Of the Surgeons-Major 20 are on general duty. By the last Bengal Army List I find there are in the Army Medical Department 143 Surgeons-Major and only 64 Surgeons. In the Madras Presidency there are 40 Surgeons-Major and only 27 Surgeons. In the Indian Medical Department, on the other hand, the Surgeons are more numerous than the Surgeons-Major, as will be seen in the following contrasted statement:—

	Army Medical Department.		Indian Medical Department	
	Surgeons-Major.	Surgeons.	Surgeons-Major.	Surgeons.
Bengal	143	64	159	180
Madras	40	27	79	85
Bombay	39	26	65	73
India	222	117	303	338

The above arrangement, by employing with British troops in India officers of higher rank and consequently drawing higher pay, doubtless saves the British, but at the expense of the Indian tax-payer.

9. On the supposition that I have established the proposition that it would be for the financial benefit of the country that there should be but one medical service for India, I would desire to point out the way in which I consider the services could be so remodelled as to utilize to the utmost the services of each member of the Indian Medical Department; but before going further I would say that in all schemes of this kind in India, I think the fundamental unit should be the *station*, and that the requirements of each station should be considered separately. Some stations under the Bombay command are purely military, some are purely civil, whilst others are mixed—civil and military.

10. By the establishment of medical schools we have educated a very large number of native gentlemen who are perfectly well able to undertake the medical treatment of natives, and I am strongly of opinion that it is an unnecessary waste of power to employ Surgeons with native regiments. The class of cases that are admitted into regimental hospitals of native corps are not, as a rule, of such a serious nature as to demand the services of a European medical officer.

11. As a matter of economy and efficiency, I would abolish all regimental military hospitals, whether for Europeans or Natives, and would substitute for them general hospitals. This measure would effect a great saving not only among European medical officers but in utilizing to the fullest extent the staff of medical subordinates and menial servants. In charge of general hospitals for European troops there should be in a large station a Surgeon-Major with a sufficient number of surgeons under his order. These officers should attend all European military officers and their families, whether belonging to European or Native regiments. In charge of general hospitals for Native troops I think there should be Assistant-Surgeons (natives), who are perfectly competent to treat all ordinary diseases met with among sepoys. The native military details should be treated in the native general hospitals.

At each station the head executive medical officer should be designated "Station Medical Officer," who, besides performing in mixed stations the civil duties, should attend the staff, conductors, &c. This officer would at some large stations require an Assistant, who should be a Surgeon, and in particular stations there might be two surgeons placed under his orders, besides an Assistant Surgeon, who would perform the medical duties at the jail and lunatic asylum. The duties at the lock hospital would be performed by one of the Assistant Surgeons attached to the native general hospital. All the Assistant Surgeons in the station should be under the superintendence and control of the station medical officer, who, except in a few small stations where only detachments of troops are quartered, should be a Surgeon-Major selected for ability and merit. At some stations where only troops are quartered, the senior medical officer should be the station medical officer, and as such should exercise supervision and control over surgeons in charge of European troops, as well as over Assistant Surgeons in charge of Native troops.

12. Statement A, annexed to this report, shows all the military stations under the Bombay command, and the present garrison quartered in them according to the last army list. It also shows the present establishment of regimental medical officers who, according to the last army list, are serving with European or Native troops, the staff medical officers, civil surgeons, and medical institutions in these stations, and also the mode in which I would propose the medical officers should be distributed. It will be thus seen that whereas the work in these stations, civil as well as military, is now performed by 69 Surgeons-Major and 37 surgeons, or a total of 106 officers, I propose that the same amount of work should be performed by 27 Surgeons-Major, 42 surgeons, and 34 Assistant Surgeons (natives), or a total of 103 officers.

13. It is important, in considering the number of medical officers required for general hospitals, not to overlook what the average number of daily sick that have to be treated amounts to. From the annual report for 1877 of the Sanitary Commissioner with the Government of Bombay, it will be seen that in the European army under the Bombay command, calculating on the mean of six years, the average number of men who are in hospital on each day is 550. The following table shows the average strength of the European army under the Bombay command, the actual number of admissions into hospital, and the average number of daily sick in each of the years mentioned:—

Years.	European army under Bombay command.		
	Average strength.	Admission into hospital.	Average number of daily sick.
1872	10,819	17,186	544
1873	10,665	14,036	531
1874	10,529	13,542	560
1875	10,184	14,298	546
1876	10,116	13,328	540
1877	10,061	13,696	583
Mean ...	10,395	14,347	550

The present strength of medical officers attending these 550 men consists of 35 Surgeons-Major and 22 Surgeons, or a total of 57 officers (see statement A).* This number would allow one medical officer to every 9·6 patients. By the scale I propose, *viz.*, 5 station medical officers at the following stations—Kirkee, Deesa, Assirgurh, Deolali, and Ghizri, 9 Surgeons-Major in charge of general hospitals and 33 Surgeons, or a total of 47 officers, there would be on an average 11 or 12 patients for each medical

* Statements not republished.

officer to see daily. The above figures do not however take into account the women and children; but the daily average number of sick amongst them, if calculated on the same ratio, would not increase the average daily number of patients to be seen by each medical officer by more than 2 or 3 at the outside. It may be asked why so many medical officers are provided for such light duties, but it must be remembered that the above figures are the average of sick of all the European regiments during each of the 365 days in the year, and that in some days and in some regiments there were many more men in hospital. But I am convinced a careful study of statement A will show that I have made an ample allowance for all the duties a medical officer has to perform, such as inspection of the sanitary condition of barracks, the attendance of regimental officers, &c., &c.

14. In addition to the regiments shown in statement A as serving under the Bombay command, there are at this present time the following number of regiments on field service in Affghanistan, *viz.*, 1 Regiment Native Cavalry, 4 Regiments of Native Infantry, a Mountain Battery (Native), and 2 Companies of Sappers and Miners, so that it would be necessary to add six Assistant-Surgeons to the number that are mentioned in statement A, making a total of 40 as representing the peace establishment of Assistant-Surgeons required for the Native army of Bombay.

15. It is quite, I hope, clear that the number of medical officers I have mentioned is sufficient for the European and Native army in times of peace when the troops are in quarters, but it is necessary to mention the arrangements I should propose in time of war or when a regiment moves into camp.

16. When a European regiment is on the line of march by itself, a Surgeon-Major and two Assistant-Surgeons should be told off to accompany it; these could be spared from the general hospital. The station Surgeon-Major would, until the arrival of the regiment that was to relieve the one that had marched, superintend the surgeons remaining at the general hospital. Of course a surgeon would be detailed to accompany detachments. On a campaign or on the march, where more than two European regiments were together, general should be substituted for regimental hospitals. By this means, medical officers, hospital establishments, stores, carriage and general supervision would be concentrated and much economised: all medical arrangements connected with European troops would be under the senior Surgeon-Major with them, who should be the head executive and be responsible to the Deputy Surgeon-General.

In like manner on the line of march in ordinary times an Assistant-Surgeon (native) should accompany each native regiment. In time of war when it was likely that native regiments might be divided into wings, two Assistant-Surgeons should be attached to each regiment. On a campaign there would of course be a sufficient number of Surgeons-Major and Surgeons told off to take charge of field and base hospitals for both European and Native troops. When a regiment is actually engaged, the Surgeons with British regiments and the Assistant-Surgeons with native regiments should accompany the troops under fire to pick up the wounded, apply tourniquets, &c., and to send them to the first dressing station, whence they would be conveyed to field hospitals and, if necessary, sent back from them to the hospitals at the base. It may be urged that Native Assistant-Surgeons would not have sufficient nerve to accompany troops under fire. I can only say I have seen native hospital subordinates under fire and they were always cool and collected, and I should never wish for better assistants, and I think that Native Assistant-Surgeons would be quite as steady under fire as subadars, jemadars, and other native officers.

17. The Bombay medical service is composed of 143 officers—

5	of whom hold administrative appointments.	
56	are employed on military duty.	
52	,,	civil.
5	,,	political.
25	are on furlough.	
Total 143		

18. Statement B shows how the remaining officers of the Bombay Medical Department are employed, the number of officers engaged in the performance of civil duties under the Bombay Government, not only as civil surgeons but also in educational, sanitary, and miscellaneous appointments. In each of the statements it will, I hope, be apparent that I have made ample allowance for the performance of all the duties of the army and of the civil medical duties; indeed, I have been able to add in some instances as at Poona, Ahmedabad, Kurrachee, Hyderabad, the "Gokaldas Tejpall" hospital to the existing staff performing civil duties. In the abstract of statement B will be found that I have shown the same number of officers in each class on furlough as in the last army list, where it is shown that 23 executive medical officers, equal to a ratio of 16·6 per cent. of strength, were on furlough. This number would form the reserve, as of course in the event of a campaign these officers would be ordered at once to return to duty.

19. I am of opinion, then, that *with the present strength of the Indian Medical Department,* with an addition of 40 Assistant-Surgeons, the whole medical administration of the Presidency could be efficiently carried out. The saving to Government by the adoption of this scheme would be very great, as the salaries of the whole of the British Medical Department would be saved, with the exception of that portion required for the salaries of the 40 Assistant-Surgeons who would be graded as at present into three grades. The medical department would then be concrete and compact. There would be no friction between departments which is so prejudical to the interests of Government. Medical officers in all grades, commissioned as well as subordinates, would be utilized to their fullest extent. Greater responsibility, more earnest work would devolve on the Indian medical department, and every officer in it would feel his professional status much increased.

20. I have not been able to state the saving that would be effected in the medical subordinate Department or in the staff of menial servants, as I should have to consult the authorities in Bombay or Poona, but it will be evident in these ranks too there would be a great saving.

21. In other ways too I am of opinion that a saving in the medical department might be effected. For example, I consider a more extended use of the indigenous drugs of India might with benefit be introduced. The natives believe in them, and I consider many of them are most valuable. Why should we import from the West Indies or South America a drug like "Quassia" when the native "Chiretta" is just as good and much cheaper. By the use of indigenous drugs the importation of European medicines might be curtailed and the saving thus effected would be not inconsiderable.

22. I also think a saving could be effected in the item of printing. I do not see the necessity, for example, of lengthy printed returns being sent in duplicate from each Native regiment and detachment every week. In my opinion a short summary by memorandum would suffice to keep administrative officers informed as to the general health of troops, and I think that one annual return is all that is necessary for statistical purposes, and this would show the monthly distribution of the sick.

23. I would not allow expensive stimulants to be given to Native soldiers; brandy, port-wine, &c., are in my opinion much too expensive and not so wholesome as rum. When I was in charge of the "Gokaldas Tejpall" hospital (one of the large native hospitals in Bombay), I never permitted any other stimulant than rum to be given, and it was as effectual as the more expensive spirits or wines.

24. In submitting this report I regret that I am unable—as I could if I were stationed in Poona or Bombay—to show the *actual* expenditure for the present establishment, or the total amount that would be annually saved if the Government of India were pleased to carry out the proposals I have made, and there are many points which it is impossible to enter upon fully in a letter, but which I should much like to explain orally to the Army Organisation Commission.

25. In conclusion, it will of course be observed that though I have only dealt with the Bombay Presidency, yet that the principles I have advocated could be applied to the whole of India, and by so doing many lakhs of rupees would be annually saved to the Government of India.

Notes on the Organisation of the Bengal Medical Service, by SURGEON-MAJOR G. FARRELL, *5th Goorkhas, dated Camp Ali Khel, 1st September 1879.*

1. The commissioned establishment of the Bengal Medical Service consists of 173 surgeons-major and 184 surgeons, and these supply the medical requirements of the country, both civil and military.

2. The service is military in its organisation, but its officers are lent for civil duties as required, being, however, liable to be recalled to military duty.

3. Exclusive of the administrative grade and of officers on furlough, more than half the service is employed on civil duties, the approximate numbers being 159 civil to 139 military.

4. The service, though nominally military, is thus mainly employed in civil duties, while its administrative staff, with a purely military organisation, is largely engaged in civil work.

5. There is a distinct and purely military medical service with the British troops in India.

6. Thus there are two military medical services in India with a double administrative staff, and during a campaign these two services work side by side, the controlling authority with an army in the field being of either service, is necessarily incomplete as regards one of them.

7. It is questionable whether this organisation tends to either economy or efficiency, especially as regards the military branch of both services.

8. The seeming advantage of the present Indian system, under which all its officers are available for military duty, is neutralised by the fact that practically they are not so.

9. The number of officers in civil employ is not beyond the actual wants of the country. And in the event of a campaign beyond the frontier, it is very questionable if large centres of population could be left without medical aid to supply an army in the field.

10. It can easily be ascertained how many of the 159 officers in civil employ were deputed to serve with the army beyond the frontier in the recent Afghan campaign, also, if the chief medical officers with the three armies in the field had a sufficient number of officers of the Indian service to meet the wants of their command.

11. If in either case the replies are not satisfactory, the system referred to in paragraph 8 is practically of no advantage.

12. In case of any serious internal disturbance, the services of civil surgeons would obviously be more readily available. Moreover, in Europe, in time of war, the military medical services are largely supplemented by civilian officers, and there is no apparent reason why in India it should be different, or paramount necessity that every medical officer in civil employ should belong to a military service.

13. It would therefore seem worth consideration whether it would not be better to create a distinct civil medical service for India and to amalgamate the military portion of the present Indian service with the British medical service.

14. The expense of this arrangement, as regards the civil organisation, would remain pretty much as it is at present, but as regards military administration, the gains to economy and efficiency are considerable and substantial, thus—

(*a*) By the abolition of the present double administrative staff and the substitution of staff surgeons-major with each British deputy surgeon-general for the control of the native troops in his division.

(*b*) By the reduction of the large pay now drawn by Indian medical officers of long service with native regiments, as all medical officers appointed hereafter to native regiments would belong to the British service, and by allowing no officer to hold such appointment beyond his tenth year of service, with monthly salaries of not less than Rs. 350 and more than Rs. 500.

(*c*) By the increased efficiency and mobility resulting from having the military medical organisation for British and Native troops under one head.

(*d*) By the introduction of a modified system of general hospitals for native troops, reducing the expense of present establishments, and for medical stores.

15. The question of appointing native assistant surgeons to native regiments on small salaries is disposed of by the above scheme, as under it medical officers for native regiments would be taken from the ranks of the army medical department.

16. The question of native assistant surgeons for native regiments is also practically disposed of by the fact that it is not the number of European medical officers in India that is excessive, but the unnecessary expense caused by the existence side by side of two distinct services when one could perform the duties at less cost.

17. With an army in the field it is essential to have an adequate supply of trained European officers with general and field hospitals, and there is no practical arrangement by which this can be maintained, except by having medical officers in the number of at least one for each regiment.

18. Two practical questions remain: first, how to obtain officers for native regiments from the army medical department; and second, how to deal with the military portion of the present Bengal medical service, as its civil portion already remains intact.

19. The number of appointments in the native army is, roughly speaking, 140. And were the army medical department enlarged by this number, I apprehend there would be no difficulty in getting men to volunteer for native regiments during the first ten years of their service, as they would obtain larger salaries than their confrères of the same standing serving in India.

20. As regards the disposal of officers of the Indian service, the question practically concerns some 140 officers. I should allow all now in military employ to complete 21 years' service with their present rights to pay, &c. On reaching this term, they could be dealt with as is proposed for officers who have completed this term.

21. All officers who have completed 21 years' service can claim a pension of £292 sterling a year. The difference between this and the highest pension they can draw nine years after is £268 a year. So that, if he were allowed to retire on £550 a year, he would in nine years have drawn £2,400; but if he remained in India he would draw Rs. 1,14,000 during the same period, which, less 20 per cent. for exchange, is £9,200 sterling. The Indian Government has therefore to take the risk of having to pay every medical officer from his 21st to his 30th years' service who is in military employ £9,200 sterling, and it is a question for actuaries whether Government would be a gainer or loser by giving this medical officer his full pension, or allowing him to serve for it in England on some intermediate pension and placing a man in his stead to whom they would only have to pay Rs. 54,000 or its equivalent, about £4,300 sterling. My idea then is that medical officers in military employ who have completed 21 years be allowed to retire on some intermediate rate of pension between £292 and £550 a year, preserving their claim to the latter when they reach 30 years' service. It appears to me that Government would gain even if it gave an immediate pension of £500 a year.

22. As regards the administrative grades, there would be four appointments available for them in the new civil medical service, and the remainder to have their option of retiring on their full pension of £800 a year. Their duties would be taken by a certain number of staff surgeon-majors on salaries of Rs. 1,200 monthly, who would assist the British deputy surgeons-general in their administration of native troops. The brigade surgeon proposed for the British service would appear to be the officer indicated. These appointments might be made from ranks of the present Bengal Service; they should be held for 5 years, and Government might grant some extra pension, say £150 a year, on the completion of the term of service.

23. The cost of the present Bengal administrative grade is Rs. 22,300 monthly. Without increasing the present number of British deputy surgeons-general, eight brigade surgeons could administer the Bengal Native army. Their salaries of Rs. 1,200 per mensem would reach Rs. 9,600 per mensem, while the salaries of four deputy surgeons-general for civil work on Rs. 2,000 monthly would reach Rs. 8,000. Thus for a total of Rs. 17,600 per mensem, being a saving of Rs. 4,700 monthly, the native civil and military administrations of Bengal could, I think, be far more efficiently conducted than at present.

24. The general hospital system is not so applicable to natives as to British troops, as its chief merit, namely, the reduction of the number of regimental medical officers, does not hold good with a native regiment, where I have shewn it to be essential to have one medical officer attached to it.

25. But the regimental hospital establishments are, I think, needlessly large for peace time, and there is at present no system by which men can be organised for service in general or field hospitals in war time.

26. If there were general hospitals for native troops at each station, I feel sure some economy in present establishments could be effected.

27. I think an average of 25 daily sick is a fair allowance for a native regiment; it is surely not necessary that they should have two bhistees and two sweepers to wait on them.

28. This is perhaps better shewn. Supposing there was one general hospital for a garrison of four regiments, who would on the above average have 100 sick daily, which is, I think, above what it would be, these men would have 8 native doctors, 8 cooks, 8 bhistees, 8 sweepers. I think this is too much, and might be reduced to one-half or by one-third. During the recent campaign there were at one time at Kuram over 150 sick and wounded, many very bad cases, and there were only 4 cooks, 4 bhistees, 4 sweepers to look after them.

29. It is not desirable to destroy the individuality of regimental establishment that may be employed separately, but I think their present hospital establishments might be reduced to one-half, while half the remainder might be retained permanently at the station general hospital. They would form a nucleus on which to form general hospitals when troops took the field.

30. Thus present establishments might be reduced by one-quarter, while a small local nucleus would be kept up in every station, which there would be no difficulty in enlarging in war time, as servants of this kind are readily obtainable.

31. I would abolish the functionary called a goorah, of whom there is one in each regimental infantry hospital. I have served some 16 years and more in a cavalry regiment, where there are none, and never knew the want of them.

32. As regards medical stores, I would at once abolish the expensive plan of issuing them to individual regiments. Stores to be issued to stations in proportion to the number of troops stationed.

These should be kept in the general station hospital under the charge of the senior medical officer, to whom indents should be sent by each regiment, which indents he incorporates in one general station indent.

No regiment marching in relief should take any medical stores with it save enough to supply its actual wants on the march.

The medical stores at each station might be given out to each regiment quarterly or in any other suitable way.

As there would be a localised hospital establishment at each station, there would be no extra expense caused in arranging for the proper custody of the medicines. Rs. 100 per mensem to the medical officer, and Rs. 10 per mensem to the hospital assistant, would cover any extra cost, and would be in itself a saving on the heavy expense now incurred in sending medical stores all over the country to each regiment, while each regiment drags a needlessly large supply after it on the march. A saving would also be effected under the head of instruments. It is not necessary even in the field that four regiments should have four capital cases.

APPENDIX XLIV.

Letter from the Government of India, to the Quartermaster General in India, No. 2012K., dated the 24th April 1879, regarding the necessity for improving the organization of the transport arrangements in the field.

No. 2012K., dated Simla, the 24th April 1879.

From—Colonel H. K. BURNE, Secretary to the Government of India, Military Dept.,

To—The Quartermaster General in India.

In my letter No. 1720 K.-C., dated 6th April 1879, the Government of India desired that it might be distinctly understood that the generals and other officers commanding in the field are absolutely and wholly responsible for the supply and transport services of those portions of the army under their command, and that the position of the commissariat officer should be that of *assistant* to the general officer in all matters connected with the functions of the Commissariat Department.

2. Recent circumstances, more especially in connection with the state of the transport of the 1st division, have shown how necessary it is that this principle,—which has, the Government of India believe, always hitherto obtained in operations of war within and beyond India,—should be strictly observed.

3. I am now to convey to you, for submission to His Excellency the Commander-in-Chief, the views of the Government of India on the necessity for a further development of this principle, and for an improved organization of the transport arrangements in the field.

4. The Government of India, I am to remark, do not under-estimate the desirability of not making changes in the organization of a service of such vital importance to an army in the field as that of transport, if such changes can possibly be avoided. But they are, I am to say, equally convinced of the necessity for a modification of present arrangements. Further, the history of most campaigns undertaken by the British and Indian armies shows that the transport has from original defective construction broken down at first, and after being remodelled has subsequently attained a considerable degree of efficiency. In the opinion of the Government of India, therefore, it would be most inexpedient to defer introducing a necessary change.

5. The original "regulations for transport trains" were drawn up by Colonel Sibley, and it is but fair to that officer to say he stated that they could only be considered as rough rules. So far as the Government of India is advised, no special improvement has taken place in the theory or practice of these regulations.

The two main principles which appear in these regulations as accepted by Government were—

1*st*, that the whole of the transport in the field was to be under the commissariat.

2*nd*, that regiments should retain their own transport.

The first principle is in accordance with Indian traditions, but applied to military operations within India, where the circumstances are entirely different from those obtaining in trans-frontier campaigns, such as that in which Her Majesty's forces are now engaged.

The second principle attempts in a very partial way to carry out the regimental system of transport, maintained with great success in the Punjab Frontier Force, and adopted by British and continental armies. The application of the principle has been, however, undoubtedly defective. Great casualties have occurred among the transport animals owing, it may be presumed, to want of supervision, hard work, insufficient feeding and clothing; and the reduced numbers have not admitted of regiments retaining their transport, which has necessarily been used in carrying supplies, so that even the limited application of the regimental system has not been carried out.

6. The results of the present arrangements are, it cannot be disguised, far from satisfactory. In one division of the army the transport has been reported to be in a deplorable state; the greatest want of information has existed both on the part of the military and commissariat authorities as to the state of the transport, and such friction took place between the principal commissariat officer and the superintendent of transport that the latter had to be removed. It is unnecessary to point out to His Excellency the gravity of such a state of things, affecting, as it does, the whole military and political situation.

7. In the opinion of the Government of India, present experience and that of European wars and Indian trans-frontier campaigns confirm the conclusion that the Commissariat Department should not be burdened with the whole transport work of the army, in addition to their other onerous duties.

Secondly, ample supervision is necessary both in the interests of efficiency and economy.

Thirdly, the control of the whole transport must be in the hands of the general commanding, advised by his principal commissariat officer, as indicated in Military Department Camp Office letter No. 1720 K.-C., dated 6th April 1879, a copy of which is attached for easy reference.

8. On the first point it is unnecessary to dwell, as, in spite of the efforts made by commissariat officers in the field, they have evidently been unable to cope with the management of the two great services of supply and transport.

On the second point, *viz.*, the necessity for supervision, I am to remark that in the Abyssinian campaign, where the transport operations were of an extensive and important nature, it was found necessary to adopt the following scale, per 1,000 mules, in the transport train working above Senafé :—

2 European officers,
2 „ inspectors,
10 jemadars,
40 dafadars,

with farriers, smith, saddler, &c.

According to the present scale, there are only—

1 European officer,
5 Native soldiers,

per 1,000 animals.

An increase in the supervising agency would, the Government of India consider, be most desirable, provided only steady men were selected, who could be thoroughly relied on. The increased numbers with the transport would not diminish the total fighting strength of the force, while in the more complete supervision of the trains there would be a greater assurance of their security, and of efficiency, on the march.

On the third point, the control of the transport being vested entirely in the hands of the general officer commanding, there can be no need for remark.

9. The present arrangements do not touch at any point the experience which has been gained in modern European warfare, nor in that acquired in many Indian campaigns and expeditions. It has now become a recognized principle, founded indeed not only on the experience of modern warfare, but on the opinions of those whose names have passed into history, that an efficient transport service with an army must have a military organization. The further development of this principle has resulted in the adoption in the British and other armies of a system by which the transport of an army is divided into—

(1) Regimental.
(2) Departmental.
(3) General.

This system is that which the Government of India desire to introduce at once into the forces in the field, believing that a change is absolutely necessary.

(1) *Regimental transport.*

10. However limited may be the numbers of animals which can be allotted to regiments and batteries, these should be told off at once and placed in charge of the regiments. The commanding officer should be directed to appoint a thoroughly efficient regimental officer as transport officer for the regiment. It is essential that he should have some knowledge of the native language and character, and possess a good temper.

This officer should be placed in charge of all the transport animals allotted to the regiment, with their gear and attendants, and should be held responsible, under the commanding officer, for the efficiency of the transport. If necessary, one or two steady men should be permanently attached under this officer to the regimental transport. In native corps the transport would, it may be presumed, be under a native officer, and in batteries under a non-commissioned officer. Clear instructions for these regimental transport officers should be drawn up under the orders of general officers, in regard to the feeding and care of the animals entrusted to the regiments. It should also be impressed on officers commanding that the welfare and success of their corps will depend in a large measure on the efficiency of their regimental transport.

During a halt, the regimental transport must be employed, if necessary, on convoy or other duty under the regimental transport officers; but of the necessity for this the general officer commanding must be the sole judge, acting under the advice of the principal commissariat officer, who will naturally keep his general officer fully acquainted with the state of the supplies.

11. The Government of India look upon the regimental transport as part of the regimental system, and are not prepared to admit that extra remuneration should be required, beyond what may be fairly expected as a recompense for any extra expense incurred. Ponies for the officers employed, and saddlery, &c., should be supplied at the public expense, and either furnished by the Commissariat and Ordnance Departments on the spot, or purchased under the authority of the general officer commanding. Where officers can provide themselves with ponies and saddlery at their own expense, an allowance of Rs. 30 per mensem will be given. In all cases the food and forage will be supplied at the public expense. The Government of India will also be prepared to consider any recommendation His Excellency may desire to make for any small remuneration to the men employed, to reimburse them for extra expense involved by their duties; but this can only be settled when it is known what numbers, if any, are considered necessary by the general officers commanding in the field.

(2) *Departmental transport.*

12. It is understood, I am to say, that this may be divided into two classes—

Brigade transport.
Divisional transport.

The brigade transport would, it may be presumed, be divided into—

(*a*) ammunition reserves;
(*b*) commissariat supplies;
(*c*) sick transport (when the brigades are separated and the field divisional hospital has to be sub-divided).

It is also understood that the cavalry and artillery have their own commissariat, and may be treated as brigades.

The divisional departmental transport would be for—

(*a*) ordnance park;
(*b*) commissariat reserve supplies, &c.;
(*c*) sick transport;
(*d*) engineer park.

If the general officers commanding consider it more advisable to have only divisional departmental transport, the brigade transport would be incorporated with it; but it must be a matter for his judgment whether, with the constant separation of brigades and the lengthy line of march, it would not be more desirable to treat the brigade as the unit for these arrangements. Brigadiers-General should be required to look after their brigade and regimental transport, and frequently inspect the animals and the arrangements made for their care.

The transport required for departments would be allotted under the orders of the general officers and some of the present transport officers attached for its supervision, and placed under the orders of the departmental officers, the transport being treated in the same way as regimental transport, and applied, when the force is halted, in whatever way the general officer commanding may direct.

(3) *General transport.*

13. This would consist of any carriage which might be hired in the country, spare animals, &c., and would be under the direct orders of the principal commissariat officer.

With a force moving in the field, there might not be any large amount of this kind of transport, which would probably be employed chiefly under the orders of the officer commanding the line of communications, the organization of which will be dealt with in a separate letter.

The principal commissariat officer would be the adviser of the general officer and his staff on transport matters. They on their part should treat him with every confidence, and he should always see the returns, &c., of the state of the transport in corps and departments, and be prepared to replace causalties from his reserve animals, inviting the attention of the general officer to any points in regard to supervision, state of animals, gear, &c., which his experience may suggest. When he considered that the employment of the regimental and departmental transport on convoy duties of any kind was necessary, he should inform the general officer commanding, and ask him to order the detachment of this transport for the special work. The responsibility would then rest on the general officer commanding.

14. In carrying out these arrangements, there are many points to be carefully considered by the general officers commanding. Among these may be indicated the following:—

The allotment of such proportions of transport officers and subordinates to departmental and general transport as may be deemed necessary; the allotment of a proper share of native subordinates to the various divisions of the transport; the apportionment of the "Government" and "hired" cattle, the former as far as possible to regimental and departmental transport; the distinguishing of regimental, departmental, and general transport by some kind of distinctive mark or badge; the establishment with the general transport of sick depôts for animals, aided by veterinary officers.

15. It is presumed, I am to observe, that there would be no necessity for any special *director*. The orders for the march, positions in case of an action, positions in camp, &c., would issue from the general officer commanding, who, through his quartermaster general, would be responsible for all arrangements; the actual care of the animals, their attendants, and gear, resting with the regimental, departmental, and principal commissariat officers according to the class of transport. In the opinion of the Government of India, as at present advised, there should be no separate transport department. In time of peace the Commissariat Department is the great employer of transport; in war it must furnish the animals originally, replenish the supply, and be responsible for the "general transport" of the army, being simply relieved of the direct burden of "regimental" and "departmental" transport.

16. In conclusion, I am to request that you will move His Excellency the Commander-in-Chief to issue telegraphic instructions to the general officers commanding in the field with a view to the fulfilment, wherever this has not already been done, of the principles laid down in this letter. There will, no doubt, be difficulties to be overcome; but the Government of India fully rely on the ability and exertions of general officers commanding and all concerned in being able to surmount these, fortified as they will be by the knowledge that the proposed arrangements will conduce in the highest degree to the efficiency of the forces under their command, and to the success of any operations they may be called on to perform.

APPENDIX XLV.

Memorandum on transport prepared in the Office of the Quarter Master General in India.

No. 7023A., dated Simla, 16th October 1879.

From—Colonel C. C. JOHNSON, C.B., Officiating Quarter Master General in India,

To—The Secretary, Army Organization Committee, Simla.

I am directed by His Excellency the Commander-in-Chief to forward a memorandum on transport prepared in this office, and embodying His Excellency's views. I am to state that this paper is less com-

plete than might be wished, especially as regards the various calculations; but that it is not considered desirable to further delay it until complete and accurate data can be obtained. I request that printed copies of the entire memorandum may be furnished.

2. I have the honor to attach a copy of the latest revised scale of camp equipage baggage and followers, as issued from this office.

3. Attached to the memorandum is a copy of the scheme and rules for the transport service on the Khyber line, as finally approved by the Government of India.

4. Also a tabular statement of the carriage required by a division of all arms in the field out of India, based upon the equipment scales in force previous to the issue of the scale referred to in paragraph 2. This tabular statement is merely a rough guide, and cannot be finally corrected until the Equipment Committee closes its report.

Memorandum on Army transport prepared in the Office of the Quarter Master General in India.

The organisation of a transport department for service with Indian armies is one of such immense importance, not only to Government, but to each individual officer who may be called on to command a force on service, that it is a matter of wonder that a memorandum on the subject should be needed. No soldier who has ever seen the struggling disorganised masses which are called transport, can fail to have been impressed with the vital necessity of reducing it to a system that will work. To the sickening anxiety which a general, put down on a foreign shore with no transport whatever, must feel, it is not necessary to allude. Neither is it necessary to begin this memorandum with arguments to prove the necessity for an organized transport; but the fact that no such thing yet exists proves the necessity for bringing before others that it has been the almost universal cry of all officers who have seen service from the Peninsular war till now.

This cannot be better done than by presenting these continued complaints and representations in the words of those distinguished officers who have made them, in the hope, though they have often before been brought to notice, that repeated iteration may at last work a cure.

The Duke of Wellington's despatches, both in India and the Peninsula, teem with instances where the greatest difficulties were met with from the deficiency or want of organization in his transport at first. At the commencement of His Grace's career in this country he was taken with an essentially civil and Indian mode of transport, the well known brinjarees. But experience, that best of all counsellors, whose simple lessons triumph so often over perfect theories, induced the Duke of Wellington to think differently. The following selection from the numerous opinions of His Grace on the subject, as recorded in his despatches, show that the brinjarees could not be relied on as military transport in the field; and that their inefficiency as such caused His Grace much anxiety, loss of time, and embarrassment.

His Grace writes as follows:—

In volume I, page 492.—"I see very clearly that we have been too indulgent to the brinjarees. It may be said that the harsh treatment which Purneah always recommended, would have driven many out of the Mysore country; but, on the other hand, I have to acknowledge that the mild treatment which they have uniformly experienced, has not brought them forward for the public service in the moment of need. They have deceived me in every instance; they have broken every engagement they have made; and I think it not unlikely that I shall be in some distress unless I can bring forward some of the brinjarees of this country."

Volume I, page 517.—"Colonel Murray writes, that he "fears the brinjaree naig, with whom the durbar are negotiating, will never come forward in the service. He says he is the same man who deceived everybody before at Bassein, and he believes he is the cause of desertion of the brinjarees from the corps under his command; if this be the case our chance is but small."

Vol. I, page 519,—"My brinjarees have been playing tricks as usual, and the consequence is that I have not got one-third of the quantity of rice I ought to have."

Vol. I, page 521.—"I apprized you in my letter of yesterday of my want of grain. I started from Poonah with 5,900 bags of rice, which, upon a moderate calculation, would have lasted me 59 days, and I might have spun it out to 90 days. The losses in cattle obliged me to leave some behind in the neighbourhood of Poonah, and to consume much larger quantities than were necessary in camp; but even with these drawbacks I ought to have had now a sufficiency to last me for a month, but the brinjarees have contrived to make away with two-thirds of it.

"The critical circumstances of our situation are much increased by what I have above stated. I shall issue wheat flour to the troops, and the followers must live upon that likewise; but we depend for our existence upon the produce of the country in which we may be situated, and the necessity of being in or passing through a barren or exhausted country or the increase of our numbers will destroy us. In this view of the question, I do not consider the probability of hostilities which must of course render it more difficult to draw subsistence from the countries in which we may happen to be. The question is, what is to be done? In considering this question I believe I must take it for granted that I shall get no assistance whatever from Poonah or Bombay."

Vol. I, page 542.—"The detachment has suffered a considerable loss in cattle since it marched from Poonah, occasioned immediately by the rain, but remotely by the length of the march which the cattle had made, the dearness and the bad quality of the forage at Poonah, and by the want of care of the owners of the hired cattle. The brinjarees also have lost great numbers of cattle; they consequently left behind and sold their grain in the villages, and there was some risk that I should be distressed for the want of rice."

The following extract shows that more than half a century ago experience in the field had convinced the Duke of Wellington of the disadvantages of hiring cattle:—

"In a letter which I addressed to Government on the 24th June 1800, I pointed out to them the evils which attended the system in practice of hiring cattle for the service, of which evils the Commander-in-Chief has had experience in this campaign. It cannot be expected that it will answer for light detachments, or indeed for any body of troops which is obliged to move to any distance; and the expense which is incurred affords no security that the troops will enjoy, in the moment of need, the advantages of the stores and provisions for which the carriage is provided."

Vol. I, page 551.—"But viewing these distresses of yours, and the disappointments which both of us have met with from the brinjarees, and knowing that these people are not to be depended upon, I strongly recommend that you should urge Mohiput Ram to collect as much rice for you as he can, and that you should establish a grain department in your detachment, consisting of at least 2,000 loaded bullocks; you will then be always sure of having a certain quantity for our troops, and the misbehaviour of your brinjarees will not be so fatal as it would prove under these circumstances."

At the beginning of the Peninsular war the same difficulties occurred which have beset a British Army in every continental war it has engaged in, owing to the incomplete state and imperfect system of organization of what are called the civil departments; but measures were then taken to organise and

strengthen the existing departments, not to create new ones incompatible with and independent of one another. The Duke of Wellingtom wrote,—

"I have had the greatest difficulty in organising my commissariat for the march; the existence of the army depends on it; yet the people who manage it are incapable of managing anything out of a counting-house."

A commissariat officer, referring to the same period, states:—

"Continental armies have the power to start with transport; but a British army having to make its invasion from the sea, the means cannot always be speedily found of taking with it any very efficient provision train, even if we had a well organised one at home for the purpose. If we have no such train and the enemy takes care to drain the country and remove the carriages, it must be obvious that the troops cannot advance any great distance from their ships, until means are found of forwarding their subsistence. It was the mule-train transport which, under His Grace the Duke of Wellington, was completed when the army was within the lines of Torres Vedras, which enabled the commissariat to supply the army in its pursuit of Massena over a country exhausted in its resources to the utmost. British commissariat has no wagon train exclusively attached to it, and under its orders either to be employed when occasion requires, or even to form the nucleus of one. There is, it is true, on the establishment of the British Army, and attached to the Quarter Master General, a corps called the Royal Wagon Train, but it is principally composed of spring wagons for the conveyance of sick and wounded. And as these do not bring back supplies when they go to the rear, and as they remain stationary when they might be usefully employed, they are of no assistance to the commissariat, whilst the men and horses must be fed, and other transport employed to do that which they might occasionally do for themselves."

Owing to the delay in the operations which occurred at Torres Vedras, time and opportunity were afforded for retrieving errors and deficiencies of organisation; and the success with which temporary and local expedients were then adopted, has probably tended to give us over confidence in our capacity to provide at the shortest notice what, in other armies, is always maintained in a state of efficiency, at whatever cost or inconvenience it may impose upon governments, not more anxious or better able than our own, to support the burden of necessary military establishments.

It must not be omitted to be observed that the Duke of Wellington only collected and adapted the abundant materials at hand for local service in a friendly country. More powerful and systematic organisation would have been indispensable under different circumstances; and this was too much lost sight of when it was contemplated to secure, with similar machinery and smaller means, the same results in Bulgaria and the Crimea. Moreover, the Duke of Wellington did not confine himself exclusively to local resources. The "Royal Wagon Train" was formed for carriage of the sick and wounded; and there was organised in 1812, for the commissariat, "a most efficient cart train," each drawn by two bullocks. The carts had iron axles and brass boxes, and were eminently useful in provisioning Ciudad Rodrigo, and in forwarding supplies prior to the battle of Salamanca.

Sir Charles Napier recorded his opinion in 1847, in these words:—

"I am convinced and long ago wrote a memoir on the subject, that the baggage of an army can never be rendered properly moveable, even in Europe or America, still less in India, unless it is formed into a corps perfectly organised. It was with great satisfaction, therefore, that I found Your Lordship was disposed to such a project. It applies to every country, every army, and every climate. It is a general principle by which most difficulties regarding baggage may be removed, and all of them reduced and made comparatively trifling. I am not aware of anything which would better exemplify the advantages which arise from the division of labour.

"The baggage of an army is perfectly susceptible of being reduced to order, but for that purpose a base of rigid organisation must be thoroughly established. How can such organisation be produced amongst a thousand camel drivers, sepoys, servants, all assembled on a dark morning at 3 or 4 o'clock, jostling, shouting, fighting for places, the baggage-master hoarse with useless roaring to people who do not mind the least what he says, and exposed perhaps to the attacks of insolent camp followers? How can any order or system be introduced by him into such a mass of wild confusion, and introduced too within the space of half an hour allowed for the baggage to assemble and march. The thing is utterly impossible, and the consequence is, that the movements of the army are impeded, the duty of the baggage guards most fatiguing to the troops, and the baggage itself liable to be cut off, or which is worse, driven in among the troops, producing a great risk of general confusion and defeat. The fact is, that a general officer's character when he commands an Indian army is greatly endangered by the baggage, the great mass of which, and the immense number of followers, if they are driven upon the fighting men, is quite sufficient to produce total defeat."

The following extract from Marshal St. Arnaud's report to the Emperor Napoleon III. is also much to the point:—

"The transport service is a modern creation; this organisation of the transport necessary for the wants of an army came into existence in the midst of war, which is the best proof of its undeniable utility and of the importance of keeping it up.

"Formerly, the land transport for the French army was obtained by forcible requisitions for men, horses, and carts, subsequently, this service was performed by means of regular contracts, which was an advance in improvement. But the resources of the wealthiest contractors could never keep pace with the work to be done. The action of contractors was perpetually jarring with the regularity and discipline which coustitute the strength of modern armies.

"From so far back as 1757 the French Government were compelled to undertake the construction of carriages and harness for the companies of the 'train,' who took account of and became answerable for them. The government had also to pay the companies in advance, and to authorise, in the shape of a loan, the issue to them of rations, forage, &c., from the national magazines.

"In the great war of the Republic and of the first years of the Empire, the government were obliged to do still more Young soldiers were placed at the disposal of contractors, who were unable to organise militarily a sufficient number of civilians as drivers. Notwithstanding all these advantages conceded to contractors, to facilitate their performance of the land transport, the desideratum could not be obtained, and the inherent evils of the system became evident."

The Emperor Napoleon said, with reference to this subject in a letter of the 6th of March 1807:—

"Nothing is so absurd as contracts; a contractor puts into the lottery, in which he may be ruined, without being to blame; or may gain a million without a cause. I shall organise military transport, like the train of the artillery transport, which is the only progress that has been made in administration."

The Emperor lost no time in carrying out his views with respect to military transport ("equipages militaires"). The decree of the 26th March 1807 ordered the organization of the "train" in battalions, commanded by officers of the rank of the Captain. At first only nine battalions were raised, each of four companies. In 1808, 1809, and 1810, four additioual battalions were raised.

In 1811 a light battalion was raised, provided with mules instead of carriages.

From 1811 to 1812 the "train" was necessarily increased in number and companies, till it consisted, at the time of the Russian campaign, of as many as twenty-two battalions, each of six companies.

Sir William Power, in his able memorandum on army transport, alludes to the evidence of a commissariat officer on the state of affairs in the Crimea:—

"All you have heard of the inefficient condition of our force is even less than the truth. There are soldiers, and fine ones too, but there is no army, for that cannot be so called which is incapable of undertaking an unopposed march of fifty miles in a friendly country. The chief arm of the service for purposes of movement—transport—does not exist. There are not the means of moving efficiently a single brigade, and no steps appear to have been taken to provide, before the arrival of the troops, for the known deficiency of that without which every movement must be crippled. An army without transport is a *steam-engine without fuel or water, possessing every element of success* but the motive power. The army has been sent out in the present condition by those who deemed themselves competent to provide for it at home, and to direct its administration abroad. And this is the state in which at the moment of action, it is handed over to what they are pleased to call a commissariat. Now, when there should be an efficient train, we are sending to Constantinople, Malta, Trieste, Barcelona, and to all the provinces of Turkey in Europe and Asia, for horses and mules. Where the wagons and harness are to come from is yet a mystery, there being nothing of the kind here except a few Maltese carts and some ricketty arabas. * * *

On the embarkation of the armies for the Crimea, the navy could not afford accommodation for the considerable body of commissariat transport (about 5,000 horses and draught cattle and buffaloes) and material which had been hastily collected in Bulgaria, in expectation of a campaign on the Danube. About 75 mules amd a few Maltese carts were all that room could be found for. * * *

"It fortunately happened that a large train of Tartar arabas was captured by our cavalry from the Russians, immediately after our landing at Kalamita Bay; otherwise it would have been very difficult for the force to have moved at all, for the soldiers, *just recovering* from the fevers, dysentery, and cholera they had suffered from in Bulgaria, were barely able to march unencumbered, and would have been physically incapable of carrying any considerable quantity of rations for their own use; the greater part even of such as were issued was most frequently thrown away. * * *"

Referring to the same period Commissary General Smith stated:—

"* * * * No provision whatever had been made in England, as it ought to have been, for the equipment of a transport corps; pack saddles, bridles, picketting materials, clothing, and every other necessary article * * * had to be obtained by the commissariat on the spur of the moment at Constantiople, where such things were scarce and of an inferior description. * * * * * *

"I allude to these circumstances not with a view to throw blame on others, but to show there was a general want of foresight as to the organisation of transport for the army in the East; and that the authorities in England and the army itself did not appreciate the vital importance of suitable transport until the calamitous pressure caused by its absence began to be realised."

Commissary General Sir William Power, K.C.B., wrote—

"1. The vital importance of organised transport, as an element of military efficiency, and its intimate connection with and subordination to the supply of an army, are so generally recognised, that we may assume this theory to be admitted in our own as in every other service; but it remains to be ascertained how it has come to pass that in the British army this theory has been so imperfectly reduced to practice; and why, upon every other outbreak of war, we find ourselves compelled to improvise out of chance materials, and without any fixed principles or system to guide us, the greater part of the transport indispensable for the first steps in active warfare.

"2. In this as in other subjects closely connected with military administration, we cannot plead for our shortcomings, want of experience; successive wars have taught us bitter lessons acquired at a heavy cost; we have had the warnings as well as the example of soldiers and administrators, and though we have always proved willing to make extraordinary efforts and submit to the greatest sacrifices in order to meet the shock of war when it comes upon us, we have invariably allowed a time of peace to lull us into a sense of security so profound, that the consolidation of military institutions, and, above all, the means of so forming them that they should admit of expansion or contraction as circumstances might dictate (a condition indispensable to the highest degree of military efficiency combined with the most rigid economy), has never been seriously attempted."

Sir John Adye, in his account of the Umbeyla campaign, remarks:—

"It cannot be too constantly borne in mind that efficient transport is one essential element of success."

Sir Hugh Rose, than whom no one ever took a more earnest and intelligent interest in the question, wrote in his No. 3526, General, dated 19th September 1864, to the Government of India:—

"12. The despatches of the earlier campaigns in the Deccan, with the histories of the Affghan and Sikh wars, and the late experience of the mutinies, so fully corroborate existing defects, that His Excellency deems it scarcely necessary to enlarge on them; but to show how actively the causes of such deficiencies are still in full operation and inherent in our system, the Commander-in-Chief would beg to draw attention to the financial expenditure, together with loss of life and *prestige* engendered on account of the want of a properly organised carriage in the late Umbeyla expedition.

"13. Sir H. Rose would further venture most respectfully, though emphatically, to bring to the notice of Government, that although the commissariat department in India have never entirely broken down under the pressure of very trifling situations, yet that such success is attributable more to fortuitous and accidental circumstances, than to a safe or sound system of organisation, in confirmation of which he would but recall those eventful days of our Indian history, when in May 1857, Delhi, in which the hopes of Indian rebellion were centered, had been snatched from our rule and was in the hands of the sepoy mutineers; and when it was of the utmost importance that a force should be pushed on from Umballa to strike a blow which might have even then crushed the mutiny in its bud, and stifled the incipient insurrection; yet at that critical period when carriage was of such vital importance, the Deputy Commissary General officially declared his inability to meet the requirement, and it was only through the fortuitous incident of the declaration of the Raja of Puttiala in our favour, that the civil authorities were enabled to procure the requisite quantity of carriage; and if this were the state on the 21st May 1857, how much more must we be liable to a greater catastrophe by the wholesale reductions which have, since then, taken place in the commissariat department. In fact the British army in India, except in stations on the line of railway, and in those where a fourth of the force is mobilized, may be said to be without legs."

And in another report, No. 131 of 1860, dated 9th January 1860, to Quartermaster General, Bombay, he says:—

"I beg to observe that my very humble opinion is identical with that of all the great authorities whom I have adduced in this report, as to the necessity of all the elements, high and low, of militray transport, being under military organisation and discipline.

"One of the greatest difficulties with which I had to contend in the late campaign was an unorganised transport.

"Indeed, before leaving Poona, I should say, that as commander of this division, I had practical proof of the delay, and embarrassment caused to military movements by unorganised transport. Thus the baggage of a small party of the 4th Rifles, ordered in 1857 to leave Poonah on field service against the Bheels, got into disorder, and broke down, encumbering the high road between Poonah and Kirkee, before it had marched two miles, and the rifles were in consequence detained

on their march. If such were the unfavorable results of undisciplined transport on the first day's march from Poonah (the headquarters of the commissariat), I need scarcely enlarge on the great transport difficulties which so seriously embarrassed me when I was far removed from all commissariat depôts or assistance, when cattle and drivers in excessive heat and drought were exhausted and carried off by casualties and hardships.

"An official report from Lieutenant, now Major, Haggart, Commissary of Ordnance of my force, of his march with the seige train from Wassind, gives a most remarkable description of the almost hopeless difficulties of a start with unorganised transport. Nor did these serious embarrassments terminate with the start; they continued during his whole march. It was one continual scene of indiscipline, confusion, and distress of baggage; bullocks throwing off their loads and running into the jungle because they were too fresh, or lying down because they were done up; drivers pretending to pursue run-away or stray animals, and deserting themselves into the jungle, leaving their carts to be driven by soldiers, tent lascars, and hired coolies, who had never driven a cart before; camels left without conductors had to be tied together in long helpless strings which embarrassed the line of march. Bullocks without drivers ran against trees, knocking off loads of valuable ammunition; in fact, Indian baggage is an emblem of weakness which is always the object of attack of an enemy.

"The camel, elephant, bullock drivers, in short, the men of the "train," from being all undisciplined and unorganised, compromise the safety, credit, and discipline of the army, by the commission of every description of disorder and outrage, for which in India they are proverbial.

"They render hostile to the troops, the inhabitants of the country, by ill-using and plundering them, thereby endangering our communication, supplies, and means of information.

"They give the worst example to the soldiers,

"Another important drawback, affecting the agricultural prosperity of the country, arises from the want of organisation of the train.

"On a sudden emergency no organised transport being at hand, carriage is pressed from the country people. This carriage ought only to be employed for a certain time and distances; but in consequence of the farmers or proprietors and drivers of carriage, on or near the line of march, decamping and hiding their carts, lest they should be pressed, the carriage first pressed is taken on, sometimes to the end of the march, or till the animals die or the carts are broken; for the drivers deserting at a very early period, the carts and their animals are entrusted to inexperienced hands, who neglecting both, the one are broken, and the other die. This evil goes to such an extent, that the agriculture of whole districts, during the late operations, has suffered seriously from the abstraction of agricultural carriage for the troops engaged in them; the fields cannot be cultivated nor the crops carried.

"In consequence of there being no organisation of officers' baggage, the officers, instead of attending to their duties, are obliged to look after the means of obtaining transport; and moreover, they often have double and treble the amount of baggage to which they are entitled, to the prejudice and even risk of operations against the enemy. When I was at Indore preparing the Central India Field Force for operations in the field, myself and a new staff were entirely without baggage. All the great influence of Sir Robert Hamilton could only with difficulty obtain an insufficient supply of camels; but camel drivers were not to be had; pack saddles and gear for the camels had to be made. Whilst, therefore, my attention and that of my staff ought to have been exclusively occupied with the organisation of an expedition to which the Government attached the greatest importance, our valuable time was taken up with petty, but indispensable arrangements, as to baggage without which we could not have marched. It was one perpetual affair of want of camels, vicious or untrained baggage animals throwing off their loads and damaging kit, pursuit of absent camel-drivers, unfinished pack saddles.

"In any foreign army, the requisite baggage transport, complete in everything, would have been paraded opposite the tent of the general officer and the officers of his staff, at the hour required.

"All I suffered, and what the interests of the service suffered during the campaign, from the want of an organised transport, made me often think of the contrast between my position and that of a French general in command, with reference to military transport of baggage, as described in my report to Lord Panmure in 1856, in the following terms:—

"And above all, the head and time of the Commander-in-Chief not being occupied with matters of detail, he has time to perform his special calling, to inspect his troops, watch over discipline, and the execution of their duties by the several departments, to plan operations against the enemy, compose his correspondence, and give decisions in matters of his competence."

"In conclusion, I beg leave to record my conviction, founded on practical experience in India and the Crimea, and a careful study of all the bearings of military transport, that the idea of organising a train, of which all the elements would not be under military discipline, is a fatal illusion."

The *Secretary of State for War*, in his letter of 29th June 1866, appointing Lord Strathnairn's committee, says:—

"The arrangements to be made for executing the transport service of an army is one of such magnitude and importance as to render it most desirable that it should be fully and carefully considered, in order that with the increased experience which has been gained on the subject both in China and New Zealand, such measures should be determined on in time of peace as will prevent the uncertainty and confusion which would arise on the outbreak of war, if the system to be adopted had then to be settled."

Deputy Commissary General F. Wingfield, in a lecture delivered at the Royal United Service Institution on 23rd April 1869, makes the following remarks:—

"Except under the pressure of actual warfare, we have never until lately recognised in this country the existence of an organised transport corps as an indispensable branch of any national force. In the wars that we have carried on in distant countries and colonies, special descriptions of transport have been extemporised for the occasion.

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"On the completion of the campaign such transport establishments have been summarily broken up; and, until occasion again arose, the consideration of the principles which should guide our action have been indefinitely postponed.

* * * * * * * * * * *

"And when the Crimean struggle aroused us to exertion, we found ourselves helpless to create, and incompetent to administer, those branches of the service, which should have been matured in the repose of peace.

"Can we possibly say that our army is in a condition to go anywhere by a given time, or to attempt any operation independently of the gravest doubts as to our capabilities of movement?

* * * * * * * * * * *

"Have we, in short, at our immediate disposal those means of conveyance, or (what is of more importance) the machinery by which they could be rapidly created, from which we might confidently anticipate success in the operations we might attempt?

"But in this unreadiness for action, in this state of inability to resist aggression, lie the elements of danger. Wars are not now conducted on the precise system of theory and method that once prevailed; rapid movement, decisive actions and energetic measures now characterise all military operations. The army that is the most complete in equipment and organisation must be the best prepared for rapid action, and will enter upon a war with every prospect of success. The struggles of 1859-1866 confirm the view, that a campaign may be a question of weeks and not of years, of days and not of months. Short as was the period for preparation awarded to the Austrians, shorter was the time of rest between each successive defeat, until their power collapsed before the energy and vigour of their enemies. And shall we not profit by that lesson? Shall we not learn that our very condition of unreadiness will be an incentive to aggressive measures on the part of our opponents, who will attack us because we are unprepared; who will assail us because we are unable to retaliate. The fact of our being unprepared cannot be disguised from other nations; they will find in our weakness an inducement to run counter to our views, and to risk the consequences of an opposition to our policy.

When the Crimean war burst upon us, "we were as unprepared for action, as ignorant of the necessities of the occasion and of the requirement of an army in the field, as our allies were ripe and ready for the emergency. We despatched from

our shores, batteries of artillery, regiments of cavalry and infantry, with companies of engineers, and we flattered ourselves that we had sent fourth an army against our foe. Unfortunately we overlooked the services of transport and supply. The train which should have been organised in anticipation of the struggle, and which should have accompanied our army on its landing in Turkey, did not exist: it had been forgotten or neglected till it was too late. The army arrived at Varna, and appealed to Omar Pasha for that assistance in wagons and pack animals which they then discovered that they should require: 2,000 wagons and 1,200 mules were estimated as indispensable for our wants in Bulgaria, while, if the army were to invade Russia, 14,000 animals would be required for our transport. Such negligence, after the bitter experience of previous wars, is to this day inexplicable. It is difficult to credit that an English army should have thrown itself upon an enemy's soil with no larger general transport than what some seventy animals and a few carts could supply, and that it should have risked destruction upon the chance of a successful foray upon the resources of a country in possession of the enemy.

"30,000 men, 4,200 horses, and 180 guns, were landed at Old Fort, without even the pretence of any transport for their supplies. A few mules for the conveyance of the first reserve of ammunition did accompany each division into the field, but the army that could not have marched from Varna to the Danube, that could not have moved as an army should operate, beyond its own camp, was launched upon the Crimea without an ambulance for its sick—without, I may say, a vehicle for a bag of biscuit, or a wagon for its ammunition and tents.

"While it is impossible upon economical grounds to maintain in time of peace a military transport, available for every service of supply and conveyance, and adequate to the requirements of a large army in the field, the doctrine which would advocate extensive reliance upon purely local transport, hired or purchased, at the seat of war, is, in my opinion, a dangerous delusion."

In 1860, Sir Charles Napier thus expressed himself upon this question :—

"I am convinced that the baggage of an army can never be rendered properly movable, even in Europe or America, still less in India, unless it is formed into a corps, perfectly organised. Such a project applies to every country, every army, and every climate. It is a general principle by which most difficulties regarding baggage may be removed, and all of them reduced and made comparatively trifling. The baggage of an army is perfectly susceptible of being reduced to order, but for that purpose a rigid organisation must be established.

He then proceeds to depict, in graphic language, the scene of turmoil and confusion which invariably occurred on the morning of the march. As it was in his time, so was it in the campaigns of Lord Strathnairn, who attributed the delays and difficulties he encountered in 1857 to the unorganised hired transport with which his army was supplied. He has described the confusion and embarrassment of the march, the waste of valuable property, the excesses and outrages of the ruffians who composed the train, and the dangers to which the communications, safety, credit, and discipline of his army were continually exposed.

Colonel Mignon, Commissary General, Bombay Army, an officer of great experience, writes :—

"If the organisation of army departments during a time of peace is necessary to meet the exigencies of war; if the rules and regulations of the service in their daily application are to form the bases of experience for the field; if the machinery is to be one perfect whole ready for the immediate illustration of power; then the organisation must extend to every branch of an army, and not stop short at the drill and discipline of its troops.

"Considering the value and the importance of the work which a transport train has to perform, that the force cannot move, cannot be fed, and cannot fight without its efficient assistance, the maintenance of a sufficient nucleus at all times is a paramount necessity; and it would appear positively cheaper to do this during long years of peace than enter on a campaign totally unprepared. Money freely spent by the State and the devotion of its servants may again, as it has in the past, do much; but there must be a needless expenditure of both, in the absence of the means for the practical application of duties which can only be acquired by experience.

"The Bombay army has thrice within the last twenty years been engaged on service beyond sea, and probabilities point to another expedition. What does our own experience teach us: that in Persia after much loss of time, after great labour, and at a very heavy expenditure of money, we collected a transport at Bushire. An advance of a few miles was made, a battle fought, and the force returned to its former camp; although months had elapsed, we were not prepared for a forward movement, and before our arrangements were completed, peace was proclaimed. In Abyssinia the necessity for an efficient nucleus was again established in a marked degree; the director in his report stated that "amongst the muleteers and muccadums a few were collected who had belonged to the field column carriage under the commissariat. The rest were the off-scouring of the Bombay streets, consisting of broken down native tradesmen, discharged Europeans and Eurasians from other departments, and the class termed 'Loafer.'"

"His Excellency the Commander-in-Chief, Lord Napier, when inspecting this heterogeneous mass, expressed himself as under the gravest apprehensions in regard to the stability of a transport formed upon such a nucleus.

"Enormous sums of money were spent and much valuable time lost before anything like organisation could be established or the materials moulded into working order. It is hardly an exaggeration to state, that half the expense would have been saved had a system of Army Transport existed and been maintained in time of peace and forwarded to Zoolla to form the nucleus of the Field Transport.

"For foreign service an organised system becomes a necessity. Whatever the nature of the operations of the country and of its resources, the first or main line of transport, organised as efficiently as possible, must be the property of Government, a part of the force itself. With the field column carriage improved and amplified, with its own staff of officers and its own special subordinates, it could in itself meet the first wants of an expedition, and afford the necessary nucleus which by judicious expansion would infuse elements of strength and order into large portions of the newly-formed transport.

"Major Furse, 42nd Highlanders, an officer who has given great attention to this subject, notes in his admirable essay, that from 1815 to 1875, a period of 60 years, England has been engaged in no less than 42 wars great and small, most of them in countries which were entirely wanting in the means of subsistence for a large force.

"A rapid and continuous forward movement was a great element of success, always to anticipate the enemy, who, for want of organisation, was generally slow. This could only be obtained by a well organised and sufficient transport. At Umbeyla a rapid advance, at first, might have prevented the rising of the hill tribes, but there was no proper transport; hence the troops were delayed, and the numbers of the enemy greatly augmented. Again, in Ashantee our movements were slow. Had our small army been able to push on to the capital immediately after the arrival on the Prah of the envoy from Coomassie, there might have been no fighting at all, and the king, unable to assemble his men in time, would have no doubt agreed to the terms Sir Garnet Wolseley proposed, before attacking his army at Amoaful. Here again want of sufficient transport delayed the troops, and a rapid advance was impossible.

"Our insular position, our political obligations, our colonial possessions, and, above all, our relations with many of our neighbouring states in the East, make it always uncertain at what moment we may be called to place an army in the field; it is therefore more incumbent on us than any other military power to direct our attention to the organisation of this most important branch of the military service."

To come down now to our own times; on the 7th March 1878, a question from the Bombay Government regarding the substitution of carts for pack carriage came under consideration, when Colonel Macgregor wrote on it as follows, after recommending the plan proposed :—

"But this is only part of the greater question of the organisation of an efficient transport for the Indian Army, to which I earnestly desire to call attention.

"Without going the length of saying that efficient transport arrangements form the most important part of the organisation of an army in the field, it cannot be doubted that the subject is one on which very great attention should be

bestowed. It is the merest truism to say that many of the most brilliant conceptions in war have been nipped in the bud or very greatly hampered by the inefficiency of transport. What then is the state of our transport arrangements at present? I fear they would be very much what they have usually been in our late wars beyond the sea: a hasty inefficient organisation, only saved from utter collapse by the energy and zeal of the officers appointed to work it.

"In saying this, I am not speaking carelessly. I have seen the working of the fatal system of leaving all our transport arrangements to be organised at the last moment. In three campaigns, and in the much larger operations of the Transport Department, I had to superintend in Behar in 1874; and I am convinced that not only is the success of the operations endangered, but there is great loss of life among animals, enormous waste of money and much fruitless expenditure of energy, by a clear organisation and code of procedure not being laid down beforehand.

"I trust this may be attended to, and it seems to me it would be advisable to assemble a committee of officers who have had practical experience of transport work, to enquire into the whole question of the organisation, equipment, and working of a transport suitable for service in countries in which the Indian army is liable to be employed."

On this the Commander-in-Chief, Sir F. Haines, wrote on the 4th April 1878—

"It appears to me that the general question of transport for our Indian armies naturally arises out of this, and should be dealt with as a matter of prime importance. A committee should be appointed to consider and report on the subject in all its bearings."

On this order Quartermaster General's No. 1024 A, dated 8th April 1878, was submitted to the Government of India, of which the following extracts bear on the general question of transport:—

"The advantage which would be gained if the Government possessed in the moveable column carriage a number of small organised transport trains, consisting of drivers, animals and wagons, which could, if necessary, be collected together to form the nucleus of a transport train for an army in the field.

"The present moveable column carriage does not possess this characteristic, being mere collections of hired animals with their drivers and being subjected to no system of discipline or organisation. It is also urged that in China and Abyssinia the extemporary constitution of transport trains for the service of the army was found to be a most difficult operation, a cause of dangerous delay on the military operations, and of great waste in money. The difficulties being mainly due to the absence of any organised basis on which to work. It is contended such a basis would be found ready to hand in the moveable column carriage if organised as proposed."

"5. The Commander-in-Chief after a very careful consideration of this correspondence is of opinion that it would be of advantage to the public service, if the Government were to accept the principle of regarding the moveable column carriage as nuclei for transport trains.

"12. The Commander-in-Chief desires to take this opportunity of urging upon the attention of the Government the importance of an early consideration of the general question of transport for the army in India. There can be no doubt that there is a want of organisation in our present system of supplying carriage for troops in the field which is but too likely to result in both inefficiency and wasteful expenditure, and in the event of a force being required for service beyond the seas we should be no better off now than we were during the campaigns in China and Abyssinia.

"13. It seems, therefore, to His Excellency that much practical good might be expected to result from the consideration of this question by a committee of officers who have had actual experience of transport work, and who might perhaps indicate in what manner the nucleus of a transport train suitable for foreign service could be best formed from the carriage which is maintained for the transport of moveable columns."

No answer having been received, a reminder No. 2859 A, dated 7th August 1878, was sent, but no reply was ever received, and shortly after, the complications arose which led to the second Afghan war.

However, in September a scheme was drawn up in the Quartermaster General's department for an organisation of a Transport Department, but at a meeting which assembled on the 25th September this scheme was overruled by Government,* and it was determined that the transport should remain under the Commissariat department, as heretofore.

** Note by Secretary.*

It is understood that the reason given was the difficulty of suddenly altering the ordinary machinery of Indian transport arrangements. The following extract of a letter from the Quartermaster General in India, No. 110-C. K., dated 4th January 1879, refers to the meeting mentioned and the scheme proposed:—

"3. With regard to the transport service, I am desired to remark that in September a scheme was drawn up in this department, by which the transport arrangements were to be on a somewhat similar system to that laid down at home, and which had been successfully applied in Abyssinia.

"The arrangements had been so far perfected for submission to Government that officers were actually nominated for the different posts, but objections were raised by the Commissary-General, and as every day's delay was serious, a meeting was held by desire of the Military Member of Council, at which he presided, on or about the 26th September, and at which the Secretary to Government of India in Military Department, the Commissary General and Quartermaster General were present, when the scheme was overruled, and it was decided that the Commissary General should appoint a Commissariat officer as chief transport and commissariat officer to be at the head of all transport arrangements with each column, and the Commissary General was to apply to the Commander-in-Chief through Government for the services of such other officers as he might deem it necessary to aid him.

"The commissariat officer for supplies to be another departmental officer who would be under the chief transport commissariat officer, and further that there should be one transport officer with every 1,000 camels.

"Annexed is a copy of the outline of the scheme laid before the meeting by the Quartermaster General.

Proposed transport scheme submitted at special meeting.

"It is proposed that the following should be the organisation of the transport for the care and charge of the transport provided by the Commissariat Department:—

With General Commanding an Army.	1 Director, 1 Assistant, 1 Accountant,	with sufficient office establishment.
For each Division.	1 Assistant Director. 1 Staff Officer. 1 Cattle Agent. 2 Assistant Agents.	
For every 1,000 animals.	1 British Officer, or very carefully selected Native Officer. 4 Non-Commissioned Officers. 10 Soldiers, Native. 1 Camelman to 3 camels.	

The transport when made over by the Commissariat Department to the transport officers of a division would be looked after by those officers, and any losses or deficiencies would be reported to the Commissariat Department in view to their being made good. The Commissariat Department would alone have the supply of the camels, &c. The transport officers would be in fact baggage masters with more extended duties both on the line of march and in camp. There is no reason why such an organisation should not work harmoniously with the Commissariat Department.

"The Commissariat cattle with the supplies would be looked after in the same way under the Commissariat Department, and divided into charges of 1,000. These might be entirely under the Commissariat Department."

It is thus apparent that before the late war, the question of the organisation of a transport department had received the earnest consideration of His Excellency the Commander-in-Chief; but, as it was determined there should be no change, when the war actually broke out the Commissariat Department were unreservedly held responsible for its organisation and working.

This war is now over, and with all its experiences fresh in our minds the subject is again taken up and the vital importance of its now being taken up in a thorough and enlightened spirit is again pressed. No one can say when it may next be required, and every hour's delay lessens the chance of any organisation which may be determined on being perfected in time.

Those who are behind the scenes are pretty well agreed that the thorough re-organisation of the system of transport hitherto, as it existed with armies in Afghanistan is one of the, if not the most crying want of army organisation in India; but as it is possible this may not present itself with such force to all, it is wished to convince those that such is the case.

To the foregoing extracts giving the experiences and opinions of many able officers, are added those of officers who having been engaged in the late war where the transport operations were on a very large scale, have had the want mentioned most prominently brought to their notice.

Lieutenant-General Maude, C.B., V.C., late Commanding 2nd division Kandahar column, says—

"Nothing could well be worse than the organisation of the transport system of the 2nd division. In fact, there was no organisation, no chain of responsibility. The superintendent was unacquainted with his duties and past his work; and though some of the junior officers were intelligent and zealous, from want of their duties being properly defined, and from the absence of a proper working staff under them, such as European and native non-commissioned officers, disorder prevailed."

Lieutenant-General Sir Sam Browne, K.C.S.I., C.B., V.C., late Commanding 1st division, states—

"The transport system was not organised on a plan to work well, and it has been almost a failure.

"The officers were new to the work; any one, whether he possessed the requisite qualifications or not, was only too gladly put into the department.

Lieutenant General D. M. Stewart, C.B., Commanding Kandahar Field Force, in reporting on the deplorable condition of the camels of the transport, the mortality which he reports to have been beyond belief excessive, arose generally from starvation and want of care by the commissariat department; he then goes on to say—

"I would submit that the commissariat department, already overburdened with the heavy duty of providing supplies for the force should not have been burdened with the charge of providing and controlling the transport," which is a duty "impossible for them to perform" "Not one of the officers of the commissariat with this force would appear to possess the peculiar experience necessary for the management of a transport train; and however much the officers specially attached for transport duties may exert themselves, they are for the most part young and inexperienced, and their late arrival in the field made it impossible for any organisation being initiated by them, which could benefit the force at starting."

Major Sanford, Assistant Quarter Master General, 1st division, states—

"There was no sort of plan or organisation worth the name Although movements have been rare and slow, distances short, weather superb, and roads difficult only in a few places, the transport has been a failure; anybody who offered seems to have been accepted for duty as a transport officer. Field officers much above their work, young subalterns with no knowledge of the language."

Colonel Macgregor, C.S.I., C.B., Deputy Adjutant and Deputy Quarter Master General, Khyber Column, writes—

"To my mind the failure of the transport service as an organisation has been complete In fact, I have never been able to ascertain that there ever was any organisation. Numbers of officers were sent up hurriedly, and thousands of animals reached the front in disorganised masses. The officers were not told what their duties were. and they had none of that subordinate assistance without which no organisation can work. There was much friction between the commissariat and transport officers, the animals were not properly looked after, and they died mostly, not from hard work or the climate, but from sheer starvation."

Major-General Biddulph, C.B., Commanding Quetta Division, was so convinced of the failure of the system that on his own responsibility he ordered a change, heading his order with the following:—

"The existing organisation of the transport train having been found quite unsuited to the requirements of a force in active service, the Major-General directs the introduction of the following system from this date."

Major-General Roberts, C.B., V.C., Commanding Koorum Field Forces, says—

"The camels and mules were hastily collected, their attendants were men unaccustomed to the restraint of a regular system; the officers had no previous experience of transport work, they were unacquainted with their chief and with each other; and in short every element necessary for an organised department was wanting. All these conditions had a terrible effect on the camels, and the result was that 68 per cent. became casualties in seven months."

Colonel Lucas, C.B., formerly Commissary General, Bombay Army, writes—

"Having observed the great difficulties which have again been experienced in securing at very short notice efficient land transport for the present campaign in Afghanistan, which difficulties have occurred in all our former wars,—often tending for some months after the commencement of hostilities to delay our operations, at times even imperilling the safety of our troops for want of supplies and munitions of war—the neglected sick, and an ill supplied soldiery."

If to these opinions any further proof of the necessity of a thorough reorganisation is required, it is abundantly afforded in Military Department letter No. 2012K., dated 24th April 1879, which directed that such a reorganisation should be carried out by the forces already in the field. If the deficiencies of the existing system were so patent that the Government were not deterred from ordering a radical change in the middle of a campaign, it can hardly be necessary to say more on the subject.

The necessity for this change being therefore established, it only remains to determine what should be the organisation for the future.

It must not be forgotten that what is required is not only a department which is suited to similar conditions for service, which were experienced in Afghanistan, but to all the varied contingencies of warfare in the East.

The first difficulty which presents itself, and indeed the great difficulty, in securing a good organisation of transport for service, lies in the fact that it is impossible to keep up a complete train sufficient even for the smallest of our wars, owing to the great expense which would be entailed thereon.

The only thing, therefore, that remains seems to be to keep up small nuclei, which could, with a good organisation, be expanded to the required dimensions in the event of war.

On this point there seems to be a general unanimity of opinion; and it is fortunate that we have the means of doing this without in any great extent increasing the cost of existing establishments.

Sir Fred. Haines says—

"It is contended that such a basis would be found ready to hand in the moveable column carriage if organised as proposed, *i. e.*, with the drivers, animals and material all properly organised, to form the nucleus of a transport train for an army in the field."

Brigadier General Phayre, C.B., says—

"With regard to the future I believe, that by a little management and without any appreciable increase of expenditure, we may interpose a safeguard against all this, by means of the transport establishments kept up in India for station and field column work. Some years ago, the followers of these establishments were enlisted men, attached to the government by self interest; the cattle under their charge were government property; on war breaking out the men of these establishments as circumstances might have required were capable of being augmented to almost any extent amongst the friends and relations at their own stations, and drafted into the transport department at the seat of war; but of late years, so far as my own experience goes, a system of contracts for station and field column carriage has been introduced; good cattle have been sold, the old and experienced servants of the state have been discharged, and thus the only nucleus we had of anything resembling a transport department, and which might at all events have been organised into a skeleton one, has been swept way.

"I submit that the same objection (expense) does not apply to our permanent station and field column establishment just referred to. These have to be maintained, whether or no! And the only question appears to be whether they are to remain next to useless in their present state of disorganisation, or be remodelled and trained as skeleton transport establishments, capable on the outbreak of war of being augmented from adjacent districts and sent wherever required. In this way I submit we may establish an inexpensive system of transport nuclei throughout each presidency, which will mitigate to some extent the evils arising from the present want of an established transport system."

Lieutenant-General Sir Sam Browne, K.C.S.I., C.B., V.C., although he does not put his views so clearly, evidently has the same plan of utilising the moveable column carriage in his mind. He recommends that an organisation should be kept up with a certain amount of carriage, and that these transport trains should be utilised in times of peace for all government work, and when not in use, be hired out to officers and others at a fair rate

Lieutenant-General Maude, C.B., V.C., remarks—

"To render the transport service efficient in time of war, a nucleus must be arranged for in time of peace.

"The present moveable column carriage, which is kept up at large stations, might be utilised as a training school or part of a scheme for the formation of the transport."

Another advocate for the thorough organisation of transport in peace, Colonel Lucas, C.B, late Commissary General, Bombay Army, in his "Memo. on land transport," enters into details on this subject, by which he utilises the field column carriage already maintained at "comparatively small increase of expense."

Sir Hugh Rose was persuaded that a well organised system of military transport would not only vastly increase military efficiency by insuring the mobilisation of the army, but, as here shown, such a result would entail no expenditure extra on the State, which would be saved the following permanent and constantly recurring sources of expense:—

"1. Cost of annual relief.
"2. Cost of moveable columns.
"3. Transport of ordnance stores.
"4. Commissariat stores.
"5. Invalids and time-expired men.

"In conclusion, I beg leave to record my convictions, founded on practical experience in India and the Crimea, and a careful study of all the bearings of all military transport, that the idea of organising a train of which all the elements would not be under military discipline, is a fatal illusion.

"The first question then which presents itself is, what should be the status of the Transport Department, and what its relation to the Commissariat Department.

"On this point there is considerable divergence of opinion; some holding that transport should remain under the commissariat, and others that it should be kept entirely distinct. A summary of opinions on both sides will, therefore, be useful.

"The first evidence in favour of keeping it under the commissariat is Sir Hugh Rose, who in several reports expresses his opinion that the commissariat is "the proper controlling authority," as "military supply and transport are intimately connected. The supply of an army being wholly dependent on transport."

The committee on army transport, of which Lord Strathnairn was president, also recorded an opinion in favour of keeping the two, commissariat and transport, under one head—

"After careful deliberation the committee have agreed that the army transport should be organised in one service and as transport is so intimately connected with, and is of such vital importance to supply, it must necessarily be under the direction of the officer *at the head of the administrative staff of the army*, who is responsible for the supply. It would, in fact, be impossible to enforce such responsibility without giving absolute control over the means by which the supplies are collected and conveyed. The committee accordingly recommend that army transport should be placed under one direction and control, to be vested in the officer responsible for the supply of the army."

Commissary General Drake, C.B., says in his evidence before this commission—

"I would include all transport under the same controlling power as the commissariat I think transport a most necessary thing for the supply of an army in the field, but if you separate the transport from the supply, I do not think the supply could be carried on. Whoever has the direction of the transport would have to be responsible for the supply."

Deputy Commissary General DeFonblanque—

"I am convinced it is impossible to hold the Commissary General responsible for the supply of an army in the field, unless you give him full and entire control of the transport. Whoever is responsible for the supply should have the full control of the transport to enable him to meet this responsibility."

Assistant Commissary General Bailey, C.B.—

"It seems to me very clear that in active warfare the Commissary General or other officer who may be responsible for the feeding of the troops, must have unrestricted control of transport, without which, the troops will undoubtedly suffer. And it is also certain that such officer would be best able to control, for the benefit of the public service, the whole transport of the army."

Colonel Mackenzie, C.B.—

"The land transport corps should form an integral part of the commissariat under the sole control of the senior commissariat officer."

Sir Hope Grant also was of this opinion.

Major-General Balfour, C.B.—

"Looking at the transport service as a separate body, and setting aside economy, there is reason to believe that a higher degree of efficiency could be obtained by the formation of an organised transport service. The commissariat ought certainly in any case to have full control over the transport required for the supplies, for which that department is entirely responsible A good understanding between the commissariat and the departments to which transport is assigned would ensure the greatest efficiency in the cattle."

Sir Charles Trevelyan, K.C.B.—

"The authority that controlled the supplies should control transport. That is absolutely necessary. Supply is utterly useless without transport to convey it: that is an indispensable principle. The director of transport must be placed under a Controller General, but not under the commissariat. It should be placed under a central control, who would apportion the transport among all the departments of the army, but always under the orders of the General Officer Commanding."

The committee on transport, which was composed of Lord Airey, Mr. Godby, Under Secretary Mr. Smith, Colonel G. F. McMurdo, and Lieutenant-Colonel Woodhouse:—

"On the whole, it appears to the committee, that the balance of the advantages as well as of authorities, is in favour of a department of transport, organised on strictly military principles, placed directly under military authority and discipline, both in war and peace. And they do not think it desirable or possible to amalgamate this corps with the existing organisation of the commissariat service, so as to place the Commissary General at the head of it; or to make him responsible for its efficiency. It is true that the commissariat requires a very large proportion of the transport of the army in war time, but the other departments of the service require transport too; and there is nothing in the special duties of the commissariat to give it any peculiar claim or qualification for the organisation and management of a corps of military drivers."

Colonel McMurdo—

"I hold it to be incompatible with real efficiency to divide the functions and responsibilities of the transport, between the transport department and the commissariat. Transport should consist in war of two branches, the regular military train and the transport of the country."

In considering this subject it is well to point out there is a fallacy underlying all the arguments directed to proving that the commissariat should have the entire control of the transport.

It is said because the commissariat uses three-fourths of the transport, therefore they must have the control of all; because they are responsible for the supply, they must have the means of keeping up that supply directly under them.

Allowing that the commissariat use three-fourths of the transport, and that provisions are, as they must never fail, the most important item of the general stores of an army; to depute the whole control of the transport to any one department, is taking from the hands of the General—the only responsible man in the force; and the only one competent to dispose of such questions,—one of his most important functions, and delegating them to a subordinate—the only man who can say what is to be done with the transport, as well as with every item of the stores, is the General; and to put this power into the hands of a subordinate in charge of only one (if the most important) of the departments, and necessarily specially interested in that department,—seems absurd and opposed to all common sense.

What we have to deal with is an organisation for service in India. Much of this often falls to the lot of single brigades and very seldom is a larger force than a division assembled; and there can be little doubt that in each of these cases, the General can quite well direct the proper distribution of his transport himself: but even allowing that he has too much on his hands, the appointment of a chief of the staff to help him at once disposes of this argument. Such an officer has no more prejudices in favour of commissariat, ordnance, transport, or any other department, than the General himself has; and therefore if the General requires assistance in this branch of his work, a chief of the staff is the proper person to afford it.

The General should be the only man in a force held responsible for every single thing in that force. Now, the system is too much for the commissariat, the ordnance, the engineers to work very much independently, and only look to the General for nominal sanction; of course when the general is a man who understands his business thoroughly, this is not the case; but the whole tendency of our service is to have a series of *imperium in imperio*; and in quarters the last place the general ever thinks of visiting is the commissariat officer, and the last person the commissariat officer thinks of consulting is the General.

This part of the question however is clearly settled by Government letter No. 2012K., dated 24th April 1879, which says that—

"Officers commanding in the field are absolutely and wholly responsible for the supply and transport services of those portions of the army under their command.

"Thirdly—The control of the whole of the transport must be in the hands of the General Commanding.

"On the third point, the control of the transport being vested entirely in the hands of the General Officer Commanding, there can be no need for remark."

In future, all our campaigns should be conducted with a due regard to an efficient organisation, for the line of communications; and if so, there will always be in addition to the Officer in Command of the fighting line, one under him in command of the communications, and the simplest and only efficient arrangement is to place all the transport in the front under the Officer Commanding, and all in rear for keeping up supplies, in charge of the officer directing the communications.

To assist these officers there should, no doubt, be subordinates in charge of the transport as well as of other departments; but they should take their orders as to the distribution of transport from the General alone, or in the event of a larger force being engaged, from his *alter ego*, the chief of the staff.

By this arrangement there can hardly be that clashing of departments which in some campaigns causes more stir than the clanging of arms.

The General alone is responsible—he certainly is most interested—in the efficiency of all the component parts of his force. If his operations fail, he cannot, supposing him to have been in the first place efficiently provided in every respect, put off the failure on some other department, as we are constantly seeing done by commissariat on to transport and *vice versâ*, at the commencement of every campaign. It is, of course, as necessary to give a General sufficient transport, as to provide him with enough ammunition, but once supplied he and he only can be answerable for the use he has put it to.

The next point is, that there is nothing in the duties of the commissariat as *at present* constituted, to give it any peculiar qualification for *the organisation* of transport. For what are these duties? Are

they not almost entirely confined to the four walls of a room? What practice has any officer of the commissariat had in the organisation and command of large bodies of men? None. Therefore they can have the first requisite, habit of command, very little. What practical knowledge has any commissariat officer of the care of animals or the proper way of loading them? Allowing that when Government kept up large establishments of animals, some of them may have acquired this training; now, there are none, beyond a few elephants and bullocks scattered in driblets through the length and breadth of the land.

Lieutenant-General Stewart says—

"Not one of the officers of the commissariat department with this force would appear to possess the peculiar experience necessary for the management of a transport train."

Regarding this point General Stewart remarks—

"The commissariat department organised on a peace footing has been unable to provide the officers and establishments required for the ordinary duties which it should undertake to perform in the field; and in the matter of transport has drifted into absolute confusion."

And the same may be said with confidence in the same sense, regarding those with the 1st and 2nd divisions; and Major General Roberts is of the same opinion in regard to the Koorum column. And even allowing that the commissariat had this training, there are not, there never will be, sufficient men borne on the rolls of that department to enable them to provide officers and subordinates for the transport.

It is clear, therefore, that the officers for a transport department always must be, as they always have been, taken from the army at large; and it may be asserted that among officers of cavalry and artillery, there are more officers accustomed to care of animals than in the commissariat; and from the army generally more men can be selected with the habits of command, which is the first requisite in a good transport officer, than there ever could be in the commissariat, were it four times the strength it is Therefore it being undoubtedly the case that the rank and file of a transport department always must. come from the army generally, it only remains to consider why the director need come from the commissariat department.

Before answering that question another may be asked. Speaking generally whether would it be more likely that you could get a good man from a department numbering 91 officers, or from the whole army in India numbering 4,570. (*Vide* minute by Sir R. Napier, dated 9th September 1867.)

Far more than systems, the efficiency of the working of any department on service depends on the right selection of men. What is required is that the best available man should be appointed director of transport, not that the unreasonable susceptibilities of any one department should be regarded. The best man may come from the commissariat, or the cavalry, or infantry, or engineers, but do not let us cut ourselves deliberately off from 50 more chances of getting him as we shall, if we only look to the commissariat.

There is another point which calls for attention. The reason why commissariat officers so unanimously wish to have all the transport in their hands, is because they say they cannot be held responsible for the supplies unless this is the case. But there is no reason to suppose that any one would wish to cut the carriage of the commissariat down. It has been said that the food for the men and animals must not run short, and the General, of all men, is not likely to permit the carriage of the commissariat to be less than is required.

Supposing that the commissariat do require, as is said, three-fourths of the carriage, the General will certainly see that they get it; but it must be detailed by the General alone, and the transport department will be ordered to give over for commissariat use as many of his divisions as may be necessary, and these will be entirely at the commissariat's disposal, only to be withdrawn by the General's express order.

But they must be worked by the transport officers, who, being responsible for their discipline and having them all in hand, will really be able to aid the commissariat far more than if that department had to carry its supplies on carriage under the charge of an unorganised mass of irresponsible chowdries, musaldars, &c.

General MacMurdo, who commanded the Military Train in the Crimea, alludes to this point—

"An objection was suggested by a member of the late committee on the commissariat, that this military organisation might, in practice be prejudicial to the authority of the commissariat officer in his own department, but it is difficult to comtemplate how such a contingency should arise. When a detachment of the military train is attached to a department for service, it is placed at the disposal of the officer of that department by whom the requisition was made. The authority of the military train officer extends only to the discipline of his detachment, the efficiency of the means of conveyance, the proper adjustment of the loads, and the due protection of the stores entrusted to his care. These are professional duties with which no commissariat officer would wish to interfere; while, on the other hand, the officer who made the requisition for the transport possesses control over its movements for the performance of the service for which it was required. During fifteen months' constant service in the Crimea, no instance of the clashing of respective authority, such as was apprehended, came under my observation."

By this plan, and this plan only, can the utmost possible work be got out of the animals compatible with their remaining alive.

The losses of camels in the late campaign have been enormous; and it cannot be denied that these have in a great measure been owing to want of system in their care. They died principally from starvation, which a good system under responsible transport officers would have prevented; also from cold, which again might have been prevented by providing them with clothing, or only working them where they would not have so succumbed; and finally from hard work, but much of this hard work was owing to the want of system, which kept the animals under loads the whole day when half or quarter would have, under a good system, enabled them to carry the same loads over the same ground.

The last point to which attention may be called is this. The commissariat on service have work of such importance, of such magnitude, and such urgency to perform, that they have not time also to look after the transport.

On this point Lieutenant-General Sir D. Stewart speaks with no uncertain sound—

"I would submit that the commissariat department, *already overburdened* with the heavy duty of providing supplies for the force now in the field, and operating at a considerable distance from its base, should not have been burdened with the charge of providing and controlling the transport.

"Whatever reform may be possible in the future, and however efficiently the transport may eventually be worked, under the system which it was determined to adopt, I think it of extreme importance to exonerate the commissariat department from blame, other than must attach to them for having accepted duties it was impossible for them to perform."

On this point also the Government of India speaks with no uncertain sound (Military Department No. 2012K, dated 24th April 1878, paragraph 7):—

"In the opinion of the Government of India, present experience and that of European wars and Indian transfrontier campaigns, confirm the conclusion that the commissariat department should not be burdened with the whole transport work of the army, in addition to their other onerous duties

"On this point it is unnecessary to dwell, as in spite of the efforts made by the commissariat officers in the field, they have evidently been unable to cope with the management of the two great services of supply and transport."

The idea that the commissariat have the command of the resources of the country in transport, and are therefore more able to collect it than any one else, must also be combated. It is believed to be a fact that in the late campaign all, or nearly all, the transport collected was obtained under the direct agency, not of the commissariat but of civil officers of districts.

In the famine in Behar in 1874, where the transport operations were on the largest organised scale of any ever heard of, and where the amount of grain carried and distributed was much larger than could be required for any army, no commissariat officer had anything whatever to do with it.

By the direct agency of the civil, and with the aid of contractors, all that was wanted was forthcoming, and a train of not less than 50,000 carts were worked most successfully on the different lines of operations by officers, not one of whom had ever had the smallest commissariat training.

Is it not a fact that the commissariat have at this moment no regular agency for the collection of carriage, and that they are entirely in the dark as to what carriage each district produces? Therefore if carriage is produced when wanted, it must be owing to other causes than the peculiar efficiency of commissaiat organisation for the work; in fact, it is the money offered which produces the carriage, together with the valuable and willing aid of the district officers.

The Commissioner in Sind, telegraphing to Bombay Government on 16th December 1878, says—"I have collected to date 19,427 plain camels, and purchased 931 Afghan camels." Total 20,358 camels.

The Commissary General in his 341, dated 15th January 1879, replies to a demand for 500 carts for Sukkur, that the *Collector* of Shikarpore has been asked to collect them.

Sir Richard Temple telegraphs at the same time that the Agent, Governor General, Rajpootana, should be asked to get 3,000 camels.

In Military Department 812K.-C., dated 24th January 1879, *Sir R. Temple* is asked to buy 10,000 camels, and to send for 2,000 carts from Bombay.

It is believed to be a fact, that all camels bought in the Dehra Ismail Khan district were got by the *Deputy Commissioner*.

In his 2695, dated 18th April 1879, the Commissary General acknowledges that out of 2,000 odd therein mentioned, 1,323 were purchased by the *Deputy Commissioner*, Dera Ismail Khan.

In other letters from Commissary General, it is stated that the *Deputy Commissioner, Jhung*, was asked to buy 800 camels, and the *Superintendent, Cattle Farm, Hissar*, to purchase some.

Also that he acknowledges that as *his agents* at various stations above Lahore, *were unable* to produce camels for the troops, those of the moveable column are to be sent up.

In his letter No. 3418, dated 19th May, the Commissary General alludes to 4,527 camels having been purchased by his agents. This is the first direct statement of any carriage having been obtained by the direct agency of the commissariat to be found.

Colonel Black, in his No. 156K., dated 3rd February 1879, states, that mules and ponies were collected by *civil officers* of the named districts as under:—

Amritsur	350.	Gujrat	100.
Gujranwala	283.	Hoshiarpur	96.
Jullunder	300.		

Commissary General's letter No. 3239, dated 10th May 1879, gives fuller information about the number of camels purchased and hired to that date—

5,529	Povinda camels purchased.	
2,461	camels by commissariat officers purchased.	
5,818	„ in Sind „	
1,554	„ in Southern Afghanistan „	
15,362		
Hired:—		
Sind camels	18,658	36,688
Punjabee camels	18,030	
Koorum	10,600	
1st Division	10,521	
2nd „	7,850	
	65,659	

The Commissary General, however, states, that he believes that 8,346 more were actually assembled; as from his returns he found that the following were collected:—

Below Amballa	7,467
Amballa	6,657
Ferozepore	2,619
Meean Meer	14,500
Sialkot	7,709
Mooltan	6,302
Rawal Pindi	5,882
Peshawar	4,211
Total	55,347

From this return there is nothing to show whether these were collected by commissariat agency or civil.

These extracts are by no means given with any idea of imputing blame to the commissariat. It is only wished to show that the carriage for the late campaign was *chiefly* procured by the *civil authorities;* and it will not be urged that it requires any commissariat training to enable an officer to write a simple letter or telegraph to another officer asking him to collect carriage for him.

Another question must be considered, and that is, if transport is put under the commissariat, there will be great difficulty, in another war, in getting combatant officers to serve; and as serving with the transport is entirely voluntary on the part of officers, this is really a very important consideration.

It is true that the commissariat in India hold military rank, but there is little doubt that most officers of the combatant branches, especially those of the home service, who have been accustomed to a civil commissariat department, have a disinclination to serve under their orders. This has been still further intensified by the fact, that according to the system which was prevalent, all commissariat officers were put over all transport officers; and so it often happened that though a commissariat officer might hold a high position in his own department, he was only of a junior military rank, and had to give orders to his senior; indeed to such an extent was this carried that there were cases where officers of field standing and distinguished service had to take their orders, as to the disposal of the transport, from conductors or men not of commissioned rank at all.

Now, it is not necessary to lay much stress on the undoubted fact that such a state of affairs must be extremely repugnant to the military feelings of any soldier, and no Government should ignore the justness and the reasonableness of such feelings. This question is by no means a new one, raised in this last war. In the China campaign of 1860, great friction existed for some time on this question, and it is alluded to in a valuable report on the transport of that war by Assistant Commissary General Bailey in these words:—

"It was also plainly evident that there was a studied passive resistance and a want of cordial co-operation on the part of the military train, resulting no doubt from that corps having been placed with and directed to work under the orders of the senior commissariat officer (otherwise to take instructions from a non-combatant branch), and which has evidently been looked on as a great source of grievance."

Again, Mr. Commissary General Turner, writing in 1864, says—

"It is folly to blink the fact that, as a rule of almost universal application, military officers will not work under the direction of the civil departments of the army, in the spirit which is indispensable to success, in a matter so critical and peculiar as the supply of an army.

"I was fortunate in having the assistance of Major Gray as commander of the horse transport, but it was not even in his power to infuse his spirit of devotion to the general interests of the service, into those who were junior to him in the corps. And what happened previously to his appointment? Covert disobedience, inattention, perpetual appeals on points of discipline to the commander of the forces—at best but a perfunctory performance of duty. In fact, the service was in imminent danger of collapsing altogether, and would have collapsed had not the commandant been summarily displaced, and such a lamentable contingency is always to be feared, where responsibility is divided and the power to enforce obedience is not direct."

It is proposed now to consider how the peace organisation of a Transport Department can be best arranged, due regard being had to its efficiency for war on the one hand, and to its economy during peace on the other.

The only existing nucleus for the formation of a Transport Department is the carriage which is now kept up in India as moveable column carriage.

The following is the distribution of this carriage by Divisions and Districts:—

	Elephants.	Camels.	Bullocks.	Mules.
Presidency ...	119	...	183	...
Allahabad ...	...	298	...	...
Oudh ...	100	516	...	...
Saugor ...	55	63	864	...
Gwalior ...	51	516	...	...
Rohilcund ...	31	535	...	...
Meerut ...	55	687	...	...
Umballa ...	63	1,082	...	...
Lahore ...	69	905	...	...
Rawal Pindi ...	122	1,229	...	500
Peshawar ...	60	1,400	...	500
Peshawar Field Force ...	...	550	...	680
Poona ...	25	133	...	368
Northern Division ...	18	143	...	162
Belgaum ...	8	52	...	133
Mhow ...	27	403	...	474
Northern Division ...	...	...	42	...
Central „ ...	4	18	78	100
Southern „ ...	4	61	21	...
Mysore	8	09	21	100
Malabar	52	...	74	...
Ceded Districts ...	5	146	...	100
Hyderabad	27	196	397	100
Nagpore	12	185	35	100
Burmah	130	...	365	...
TOTAL ...	1,045	9,227	2,080	3,357

In order that the nucleus formed by the animals now entertained by Government as moveable column carriage shall be thoroughly trained and efficient, it is absolutely necessary that they be all Government property.

The 1,045 elephants are Government property already. According to the evidence of Major General Balfour the cost of keeping an elephant is Rs. 50* per mensem; 1,045 elephants therefore cost Government Rs. 6,27,000 per annum. Elephants are of use only for very special purposes as beasts of burden. They are probably a necessary class of carriage in Burmah

* This is believed to be too low an estimate. Further reports have been called for.

and in the Eastern Frontier. But for any operations on or beyond the North-Western Frontier it is exceedingly difficult to feed them. Under these circumstances it would be well to reduce this part of the moveable column carriage by the sale of two-thirds of the animals, to about 350 all told.

The elephants belonging to Batteries of Artillery and the Regiments in Assam should, however, be retained as at present, *viz*,—

2 Heavy Batteries*	18
4 Assam Regiments	32
TOTAL ...	50

* Has been increased recently.

The sale of 695 elephants, assuming as an average price Rs. 600, would produce Rs. 4,17,000. And with this amount 3,500 camels could be bought, of which 500 might be males and 3,000 females, and if these were very carefully selected from the very best breeds and sent to graze in the Derajat, they would produce, say, 2,000 good animals per annum. Or if mules be preferred 2,800 might be bought at 150 each.

The annual saving of cost in the difference between the keep of 695 elephants and 3,500 camels or 2,800 mules will be noted hereafter.

The carrying power is 3,500 camels at 4 maunds = 14,000 maunds, against 695 elephants at 15 maunds = 10,425 maunds; or 2,800 mules at 2 maunds = 5,600 maunds. But for the convenience of ordinary service the camels or mules are far superior.

NOTE.—These weights are taken as fairly representing the loads portable for a continued period.

The Military Department should not be debited with the expense of elephants which are required for the camp equipage of His Excellency the Viceroy, and the State elephants.

The camels of the Moveable Column Carriage are not at present the property of Government. They must be purchased and the cost of 9,227, or say 10,000, camels would be probably Rs. 8,00,000.

Pack bullocks do not appear to be of great value in any district as Government carriage. When they are in common use, they would always form part of the Registered Reserve Carriage. They are far inferior to mules for service on the North-West Frontier. For the 2,080 bullocks now employed mules should be supplied either at once or within a short period.

Allowing Rs. 30 as the value of the existing bullocks, 416 mules may be bought in their stead.

Of the 3,357 mules, now belonging to the Moveable Column Carriage, 1,000 at Rawal Pindi and Peshawur, and 680 with the Punjab Frontier Force are already Government property, 1,677 therefore remain to be bought at a cost of, say, Rs. 2,51,550. But no doubt many of the mules already purchased for service in Afghanistan will be available at the close of the operations to reduce the totals above given.

In addition to purely pack carriage, it is of very great importance that a proportion of cart carriage of first rate quality shall be maintained as a nucleus both for the requirements of any emergency, and for the proper training of all establishments in the use and application of such carriage.

Nothing of this sort now exists in the Moveable Columns in Bengal.

Probably about 2,000 carts would be required, and they should be of some known and approved pattern, as the Tirhoot cart or the regular Maltese Cart (not the Ordnance modification of the same, which appears to be unsatisfactory).

Such carts would require a permanent establishment of bullocks; in ordinary peace time 2 per cart or 400 draught bullocks.

Two thousand carts, at, say, Rs. 300, would cost Rs. 6,00,000, but here again many bought for the present operations will be available to reduce this total.

Four thousand bullocks would cost perhaps Rs. 1,20,000. But under certain modifications of artillery equipment now under consideration, about 2,200 bullocks would be transferable to the transport service.

Supposing then that all the animals and carts have to be bought, the cost will be—

	Rs.
3,500 camels or 2,800 mules ... } in lieu of elephants	...
10,000 camels of present hired carriage, purchased	8,00,000
416 mules in lieu of pack bullocks	...
1,677 mules, balance of Moveable Column Carriage not now Government property	2,51,550
2,000 carts	6,00,000
4,000 bullocks for ditto	1,20,000
Total ...	17,71,550

The total strength of the Moveable Column Carriage, all Government property, then would be :—

		Rs.	Rs.
A	Elephants	...	350
	Camels	3,500 10,000	13,500
	Mules	416 3,357	3,773
	Carts	...	2,000
	Draught bullocks	...	4,000
	or		
B	Elephants	...	350
	Camels	...	10,000
	Mules...	2,800 416 3,357	6,573
	Carts	...	2,000
	Draught bullocks	...	4,000

The cost of maintenance of the various animals, including food and attendance, is as follows :—

Elephants (as noted above) Rs. 50 each per mensem.

Camels. Derived from actual cost of carriage maintained with Punjab Frontier Force.

Feed Rs. 2 per head.

Attendance per 55 camels, 1 jemadar at Rs. 10, 2 surwans at Rs. 6 each = 64 per mensem = Rs. 1-2-6 per head.

TOTAL per *camel* per mensem Rs. 3-2-6.

Mules.—*Feed* Rs. 6 per head.

Attendance.—1 jemadar, at Rs. 10 per 40 mules.

13 muleteers, „ 6 „

= 88 per mensem or Rs. 2-3-0 per head.

TOTAL per *mule* per mensem Rs. 8-3-0.

Carts.

Attendance.—1 jemadar for 100 carts, at Rs. 10 each.

1 carter for each, at Rs. 6 = Rs. 6-1-8 per cart per mensem.

Some expenditure will be incurred for repairs and may be assumed at about Rs. 3 per cart per month.

Total cost per cart per month, say Rs. 9.

Draught bullocks' *feed*, at Rs. 6 each per mensem.

Applying these rates to the existing Moveable Column Establishments we get :—

							Rs.	A.	P.		Rs.
1,045	elephants					at	50	0	0	=	52,250
9 227	camels ...					„	3	2	6	=	29,122
3,357	mules ...					„	8	3	0	=	27,486
* 2,080	pack bullocks ...					„	6	0	0	=	24,480
				Total per mensem		...					1,33,338

* No Establishment included.

And to the proposed establishments :—

							Rs.	A.	P.		Rs.
A.	350	elephants				at	50	0	0	=	17,500
	13,500	camels ...				„	3	2	6	=	42,625
	3,773	mules ...				„	8	3	0	=	30,892
	2,000	carts ...				„	9	0	0	=	18,000
	4,000	draught bullocks				„	6	0	0	=	24,000
				Total per mensem		...					1,33,017

or—

							Rs.	A.	P.		Rs.
B.	350	elephants				at	50	0	0	=	17,500
	10,000	camels ...				„	3	2	6	=	31,562
	6,573	mules ...				„	8	3	0	=	53,817
	2,000	carts ...				„	9	0	0	=	18,000
	4,000	draught bullocks				„	6	0	0	=	24,000
				Total per mensem		...					1,44,879

In either case, however, the carts are entirely additional to the carriage now maintained. A comparison of the carrying power is as follows :—

Present Moveable Column Carriage.

						Mds.				Mds.
1,045	elephants					at	15	=		15,675
9,227	camels					„	4	=		36,908
3,357	mules					„	2	=		6,714
2,080	pack bullocks					„	4	=		8,320
										67,617

Proposed Moveable Column Carriage.

						Mds.				Mds.
A.	350	elephants				at	15	=		5,250
	13,500	camels				„	4	=		54,000
	3,773	mules				„	2	=		7,546
	2,000	carts ...				„	12	=		24,000
										90,796

or :—

						Mds.				Mds.
B.	350	elephants				at	15	=		5,250
	10,000	camels				„	4	=		40,000
	6,573	mules				„	2	=		13,146
	2,000	carts ...				„	12	=		24,000
										82,396

According to Commissary General's estimate in a memorandum to Government on 21st July 1877 the above carrying power, say 100,000 maunds, is equal to the requirements of 15,000 men for service in Afghanistan. And *this* carriage would be trained and efficient and immediately available.

It is absolutely necessary that a new and quite separate transport department shall be formed complete from the highest to the lowest grades, solely and entirely subordinate to the Commander-in-Chief, of such strength as may be best employed during peace (1st) in the utilisation of the transport department carriage to the best advantage of Government; (2nd) in the training of officers and men annually for such duties in the field; (3rd) in the most complete knowledge of the resources, and of the peculiar requirements as regards transport of all parts of India, and of all adjacent countries.

Unless this is done, it is quite impossible that any normal peace collection of carriage can be rapidly and successfully expanded to the necessary dimensions in case of war; or, that the dangerous state of disorganisation of the transport department which has existed more or less on the outbreak of every war in India since the Mutiny; and has been, moreover, an uniform scandal to British military operations in all parts of the world can be effectually remedied.

It has been justly said that in war men, rather than systems, are what make things work; but it is the duty of those who are charged with the organisation of the army to see that the systems on which the several departments are formed are the best that experience would dictate or intelligence devise.

The first necessity for the formation of a good system of transport is the selection of the best man procurable to watch over its birth, to foster and train it till the test of war has proved the soundness of its mechanism.

The field of selection for this man must, therefore, be as large as possible. In fact, since the work to be done is immeasurably superior to the command of any regiment, the position and pay must be such that, at least, it should be considered a rise for any one holding any appointment lower than the command of a brigade; it is proposed, therefore, that the officer so appointed should hold the rank and pay* of a Deputy Adjutant General or Deputy Quarter Master General, and to provide this, the abolition of one of the Deputy Commissary Generals is suggested.

* Rupees 800.

This Director should also be provided with sufficient clerical assistance, the exact cost of which, however, it is difficult to estimate at present.

His duty should be in peace in addition to constant inspection and supervision over the Transport Department (the details of the organisation of which will be sketched hereafter) to be accurately and fully informed of the resources in transport, not only of every district in India, but of every country in which Indian armies are likely to be called upon to operate. This information he would collect through the various Civil Governments, through the Intelligence Department for foreign countries, and all records of the Commissariat Department throughout India which bear on the subject of transport should be made over to him.

He should also keep a careful register of the individuals in each district whose influence, wealth or knowledge of the country would point them out as men likely to be able to assist in the speedy collection of transport on the outbreak or the threatening of a war. On the thoroughness with which these two important records are kept up will depend much of the success of his operations when the strain comes.

A great point in the organisation of transport, as in every other military body, is to see that there is a proper chain of responsibility from the Director down to the camelman or muleteer. Without this it will never work well, but if this is provided and the opportunity is taken of organising and practising it in peace, all will have been done, due reference being had to economy that is possible.

It is proposed that there should be a Deputy Director for each military district or province say 4 at Rs. 500 and 12 Superintendents of Transport for all India, the exact distribution of the latter is a matter which should be settled hereafter, with reference to the work; but at first they might have the general superintendence of transport arrangements as follows:—

1. Presidency and Allahabad Divisions and Districts.
2. Oudh and Rohilcund.
3. Saugor and Gwalior.
4. Meerut and Umballa.
5. Lahore and part of Punjab Force.
6. Rawalpindi.
7. Peshawar.
8. Northern Division and Mhow, Bombay.
9. Belgaum and Poona.
10. Northern Madras.
11. Southern Madras.
12. Burmah.

These 12 officers should receive Rs. 300 per month, and they should be allowed each one clerk on Rs 50.

The duties of the Transport Superintendents should be to look after the animals in their circles, to communicate with the district authorities regarding the carriage available and to become personally acquainted with men in the district whose wealth or influence or experience would point them out as the most likely individuals to assist in collecting large amounts of transport when required. To superintend the establishment under them and see by constant practical examination that they were really acquiring useful information regarding the care of their animals, their feeding, and the best manner of loading them and all connected with pack saddles and carriages. Any men who would not seem likely to make good transport subordinates should at once be returned to the ranks, and their places filled up without delay. The Subordinate Establishment should be provided on the following principle:—

1 Native soldier to every 100 camels or mules, to every 25 carts, and to every 50 elephants.

1 Native non-commissioned officer to every 3 gangs or fraction of 3 gangs as above.

1 Native officer to every complete 12 gangs as above.

The revised establishment of carriage in lieu of present Moveable Column Carriage, and the necessary subordinate establishment would be distributed approximately as follows:—

	Native Soldiers for				Carriage.				Total of native soldiers and gangs.	Total of native non commissioned officers.	Total of native officers.
	Elephants.	Camels.	Mules.	Carts.	Elephants.	Camels.	Mules.	Carts.			
Presidency	40	..	..	100	1	...	...	4	5	2	...
Allahabad	...	500	...	50	...	5	..	2	7	2	..
Oudh	30	1,000	...	100	1	10	...	4	15	5	1
Saugor	20	150	...	200	1	2	...	8	11	4	
Gwalior	15	500	..	50	1	5	...	2	8	3	
Rohilcund	10	500	..	50	1	5	...	2	8	3	
Meerut	20	1,000	..	100	1	10	..	4	15	5	1
Umballa	20	1,500	100	100	1	15	1	4	21	7	1
Lahore	20	2,000	100	200	1	20	1	8	30	10	2
Rawalpindi	40	2,000	500	200	1	20	5	8	84	12	2
Peshawar	20	2,000	750	150	1	20	8	6	35	12	2
Punjab Frontier Force	...	550	700	...	...	...	...	...	...	...	..
Poonah	30	150	350	50	3*	2	4	2	8	3	2
Northern Division		150	150	50		2	2	2	6	2	
Belgaum		50	150	50		1	2	2	5	2	
Mhow		500	450	50		5	5	2	12	4	
									3	1	
Northern Division	40	...	..	50	4*	...	...	2	2	1	2
Central ,,		50	100	50		1	1	2	4	2	
Southern ,,		100	..	50		1	...	2	3	1	
Mysore		150	100	50		2	1	2	5	2	
Malabar			...	50		...	...	2	2	1	
Ceded Districts		200	100	50		2	1	2	5	2	
Hyderabad		250	100	50		3	1	2	6	2	
Nagpore		200	100	50		2	1	2	5	2	
									4	2	
Burmah	45	...	..	100	1	...	...	4	5	2	...
	350	13,500	3,750	2,000	..	...	..	...	264	94	14

In the foregoing table it is to be observed—

1st.—That the revised scale previously distinguished as A, has been used.

2nd.—That no distribution of elephants has been given for Madras and Bombay, but they and their consequent establishments are included in the totals.

3rd.—The bulk of the pack carriage is kept on the North-Western Frontier, according to present requirements.

4th.—Carts are distributed to every station, in and about which they can certainly be employed in many ways; and it is of great importance that the proper method of working this description of carriage shall be as widely known as may be possible.

The cost of the whole of the proposed establishment may be summed up as follows:—

	At per mensem.	Per annum.
	Rs. A. P.	Rs.
1 Director of Transport	800 0 0	9,600
4 Deputy Directors	500 0 0	24,000
12 Superintendents, Transport	300 0 0	43,200
Writers and Clerks	...	..
Director's Office	200 0 0	2,400
Deputy Director's Office (4)	50 0 0	2,400
Superintendent's Office (12)	50 0 0	7,200
24 British soldiers attached	15 0 0	4,320
*14 Jemadars	46 4 0	7 776
94 Native Non-Commissioned Officers	19 12 0	22,284
264 ,, Soldiers	10 12 0	34,056
		1,57,236

* Jemadars only are taken as their rate of pay is much less, and they are presumably young and active native officers.

The appointment of the superintending officers and men should be for two years only. By this plan it is arranged to train in a practical manner 12 officers, 14 native officers, 94 non-commissioned officers and 265 men every two years; but as it would be unadvisable that all should be simultaneously withdrawn for the first year, a strength of one-third more than the establishment should be allowed, *viz.* 16 officers, 19 native officers, 126 non-commissioned officers and 352 men, and then at the end of two years one-third of this be allowed to remain on for another year, another third be appointed. In this way there would always be one-half of the number who had served a year in the transport present with it. It will be noticed that the British element is excluded from the transport as far as the subordinate establishment is concerned, and for this reason. It would be very difficult to get any large number of British soldiers who, in addition to a knowledge of the language, would have any knowledge of the people or sufficient kindliness of manner towards them. A British non-commissioned officer or soldier is a more costly individual, and cannot, so to speak, be sent about so freely as a native; much of the work and many of the places where he would have to work would be unsuitable to him; for instance, he could not remain out in the hot weather with the elephants and camels grazing, and finally seeing the difficulty there already is in getting men of sufficiently steady character for clerks, it may be doubted whether enough men could be got able to stand the much more trying ordeal they

would be put to on being detached for a long period by themselves. In the natives of India we have a race, whose docility and general freedom from crime cannot be surpassed, and it is considered essential that we *should always* use them as the subordinates of our transport corps; it will always be an easier and more efficient and more economical arrangement to raise any number of them than to trust to the rough material we may pick up on the spot in any of our campaigns. And it is no doubt advisable that our British soldiers should have some training; there would be no objection to a certain number, say two or three more, being attached to each of the transport officers to assist him, and be always under his eye, and as will be afterwards seen, whenever a regiment marches (and every regiment should make a march for exercise at least once a year) it shall do so with its transport properly organised and *looked after by its own men.*

The utilisation of this carriage for purposes of relief of regiments and generally for Government use, will be a considerable set-off against the cost of the transport. The Director of Transport should arrange annually with the Commissariat, Ordnance, and Quartermaster General's Departments regarding this utilisation to the utmost, compatible with its retainment in an efficient state for war. This application of the nucleus, in addition to reducing the expense of its keep, will greatly tend to give the establishment of the transport that familiarity with their work which will bear fruit on the outbreak of another war. Supposing these arrangements are perfected and that the carriage is only used for the six cold months, the following shows what the same amount of carriage would cost if hired—

		Rs.
350 elephants at Rs. 2 each per day, or Rs. 60 per month, for 6 months	... ...	1,26,000
13,500 camels „ 8 each per month × 6	... ...	6,48,000
3,773 mules „ 12 „ „ × 6	... ...	2,71,656
2,000 carts „ 10 as per bullock per diem, or Rs. 18 per month × 6	...	2,16,000
GRAND TOTAL	...	12,61,656

It has before been noted that the monthly cost of this carriage, if Government property, would be Rs. 1,33,017, or Rs. 15,96,204 per annum. The cost of establishment is estimated at Rs. 1,57,236. The total cost of the transport department is, therefore, Rs. 17,53,440 per annum, or Rs. 4,91,784 more than the men hire for six months.

The accounts of the cost of carriage in the late campaign have not been as yet made out; and as it is impossible to keep this paper till they are, resort will be had to such data as can be found to enable some calculation to be arrived at. The Commissary General in a memorandum forwarded to Government on the 21st July 1877, estimates that for a force of 30,000 men 50,000 camels will be required, but as there were actually over 45,000 men in the field, and these were working on separate lines, they were probably not less than the equivalent, including mules, ponies, and carts of 1,00,000 actually working.

Taking this number then, and estimating the hire of Rs. 15 per mensem, we arrive at a cost of Rs. 15,00,000 per mensem, or as the troops were on an average not less than seven months in the field, at a total cost of Rs. 1,05,00,000, and this without counting the extra cost of compensation for camels killed, stolen, or died from other than ordinary causes, which it is believed has been calculated as Rs. 60,000, so that taking the Commissary General's figure of Rs. 80 for the cost of compensation for each, there will probably be no less than Rs. 48,00,000 to be paid on this account.

Again, we should add the cost of the transport department, such as it was; but this is such a mere drop in the ocean as to be scarcely worth calculating.

Altogether, it is doubted if the cost of the transport in the late campaign could have been less than Rs. 1,53,00,000. Setting aside all questions of efficiency and immediate preparedness, the above total thus represents something like 31 years' expenditure at Rs. 4,91,784, *viz.*, the excess of maintainance of Government establishment over hire of its equivalent for six months.

In addition to the cost of maintenance of the moveable column carriage, there is a vast outlay for movements of troops and the carriage of stores in the three presidencies, which is given from the Budget Estimate for 1878-79. The cost of the movement of troops by land is estimated as follows:—

	Rs.	Rs.
British	1,13,696	1,45,571
Native	32,375	
By rail.		
British	5,00,000	5,50,000
Native	50,000	
Total movement, troops		6,95,571
Stores by land transport.		
Commissariat stores	8,81,700	11,17,837
Clothing	10,000	
Medical	4,837	
Ordnance	2,17,300	
Miscellaneous	4,000	
Stores by inland water transport.		
Commissariat stores	60,000	92,829
Clothing	1,000	
Medical	4,329	
Ordnance	27,000	
Miscellaneous	500	
Stores by railway.		
Commissariat stores	11,00,000	15,28,600
Clothing	10,000	
Medical	34,000	
Ordnance	3,44,000	
Miscellaneous	30,000	

Totals of stores.

	Rs.
By inland	11,17,837
By water	92,829
By railway	15,28,600
	27,49,266

Grand Total, or by Departments.

Movements	6,95,571
Commissariat stores	20,44,700
Clothing	31,000
Medical	43,166
Ordnance	5,88,300
Miscellaneous	34,500
GRAND TOTAL	34,34,237

Of these items, it might be in the first place possible to convey by land, by the Government trains, a large portion of the stores now sent by railway and costing Rs. 15,28,600, and although the movement of troops by railway is desirable to a certain extent to practise both the troops and the railways, yet it is more desirable to train troops in ordinary marching, and probably a considerable part of the movements by rail, costing Rs. 5,50,000, might well be carried out by route marching.

There are several other ways in which a Government transport nucleus might be made useful and which would go far to pay its cost—

1st.—*Famine duties.*—In regard of these no sort of argument seems necessary, and there is no probability that famines are at an end in India.

2ndly.—Station duties now performed by hired carriage under the commissariat and military works. This point is referred to in Colonel Mignon's paper.

3rdly.—The power of employment on large public works such as railways and canals.

4thly.—The utilisation of such carriage at camps of exercise, &c.

It is impossible to speculate on the actual value of such services. But the immediate availability of *trained* carriage for famine duties, for example, is in itself a valuable consideration. And there remains the undoubted service to the State which will be performed by the registration and periodical inspection of reserve carriage of all classes, and by a proper maintenance of records of the capabilities in transport of the country at large.

In the correspondence published with Resolution No. 375A of 1864 of the North-Western Government, there are a number of letters giving the opinions of district officers on the best way to collect carriage for the movement of troops, and, although these refer to carriage required for peace movements, they still give some valuable hints as to the best way of getting at the carriage of the country with the least possible hardship to the people.

The first and most notable point in this evidence is the unanimous opinion that the only way to induce the people of the country to come forward willingly with their carriage for military purposes is to pay the fair market rates, in addition to a sum to compensate for the extra disadvantages to the owners of military service.

This is agreed in most entirely. A man should never be driven to do a thing until it has been proved beyond all doubt that he is not to be led; and, therefore, in making arrangements that a reserve of transport shall be forthcoming, the first step is to see what amount can be induced to come forward or bind themselves to appear when called out willingly.

Lieutenant Colonel Low in a paper on transport says—

"Whatever system of transport is adopted, it must, to be a success, be acceptable to the people no less than to the Government."

There is great truth in this remark. Everybody, whether soldier or civilian, can understand and fully sympathise with the feelings which render a mere military despotism so repugnant, and will be very much averse to impressing carriage, till all efforts had proved it to be a necessity to do so, and therefore it would be better at first to see what can be done by resorting to the open market for what we want. With the aid of the civil authorities to make their wants known, the transport department should endeavour to get a number of contractors in the various districts to register themselves as such, and bind themselves to produce, after a certain specified notice, a certain amount and description of carriage. On an individual coming forward with this intent, he should agree to provide this carriage whenever Government wanted it, complete with drivers and necessary gear in good order, and Government on their part should agree that as long as he fulfilled this agreement satisfactorily, the judge of which should be the chief civil officer of the station, Government would bind itself to employ this man whenever carriage was required for any Government purpose whatever up to the full amount of his agreement, to pay him in peace fair market rates and according to the distance and nature of the country he was to go to, and in war also either to pay a regular increase, calculated on the usual enhanced rates for war, or an increased sum varying with the times and circumstances, to be fixed by a Committee of arbitration consisting of an influential native named by himself, the chief civil officers of the district, and a military officer to be specially deputed according to circumstances.

All such contracts should be duly registered in the district courts, and a nominal roll kept of the contractors and the carriage they agreed to supply in the office of the transport branch at head-quarters. This roll should be kept constantly corrected up to date, and on any contractor dying or being declared no longer worthy of this position of trust, or declaring his inability to act up to the terms of his contract, or his wish to be free of it for any reason, or on the transport department no longer wishing his services, the contract to be held null and void on three months warning given by either party.

Such a measure would, no doubt, produce certain amount of carriage, and if the contractors were fairly dealt with in peace and liberally in war, if the interests of the owners were duly guarded, there is no reason why in time the Government should not secure the command of the whole of the transport in India that would ever be inclined to come forward without impressment.

Colonel Low in a paper he has submitted, recommends that all the carriage of a district should be registered, and that a retaining fee of Re. 1 per animal be given for the number of animals required, but the efficiency of such a plan is doubtful, and would, it is thought, prove one-sided. Government would pay regularly for a number of years Rs. 12 per animal, and when the time came there would be no certainty that the animal was forthcoming, and if it were produced it is most likely that the reason of its appearance would be the war rate offered, and not gratitude for the retaining fee paid. By the system now proposed, it is certain that the services of a large number, if not all, of the most influential and experienced employers of transport, would be heart and soul with the Government, because their self-interest would lead in that direction. The plan of paying a retaining fee seems to depend on a misapprehension of the meaning of the term 'gratitude,' which is very seldom felt for past favours, but nearly always exists when there is a chance of favours to come.

Upon the whole, the proposal to pay so large an annual retaining fee as Rs. 12 per animal is hardly satisfactory. It would be better to pay an annual fee of say Re. 1 or 2 per head for every animal under contract which should be presented, passed as efficient, and branded, at the annual inspections.

Of course, it cannot be imagined that circumstances will *never* occur, when these measures will fail to produce the necessary amount of transport, but they are only regarded as the first reserve, as has been before said a man should never be driven when he can be led, and as long as the measures herein sketched will produce sufficient transport, well and good, but when they fail recourse must be had to impressment.

But even this should be arranged so as to press as lightly on the country as possible. Above, it has been said that one of the records of the transport branch and of each civil district must be a tabular statement kept, corrected up to date, showing *all* the transport in the country.

Ordinarily, as has been pointed out, there would be no pressing; "but if on any emergency such a measure became necessary, the carriage required would be taken according to its number on the registry, those last registered being taken first, and that to every owner of carriage so pressed a certificate would be given exempting him from further service until every other animal on the register had been taken. Such a measure would reduce the undoubted hardship of the impressment to a minimum and would effectually prevent the usual oppression and extortion of under-strappers, as the Magistrate of each district would himself notify from his record to the tehsildar whose turn it was."

Still further to reduce the chance of hardship, it is suggested that the owner of every animal so called up should have the option of hiring it to Government at a rate to be fixed as noted above, or of selling it at a price determined in the same manner.

The course of action for the transport department on the outbreak of a war would be—

1st.—To calculate the requirements of the force ordered on service. This, indeed, should be done beforehand, as when once scales of equipments are finally settled, it is easy to have statements of this kind ready.

2nd.—To determine what proportion of the permanent transport can be spared for the service and order its assembly.

3rd.—To select from its records a proper establishment of officers, non-commissioned officers and men for the organisation of the transport required.

4th.—To call on the contractors of the various districts or circles to produce the animals according to their agreement and to arrange for officers or others to take them over and march them to the rendez-vous.

5th.—To purchase or hire any number of animals required extra to above that may be procurable at the seat of war.

6th.—If this last should fail, to call on the magistrates of districts to produce a certain proportion of carriage, from the names in their registers, this last only to be done with the sanction of Government.

7th.—To form a depôt under proper supervision and in a proper position for the reserve carriage necessary to meet causualties in the front.

The establishment of a 1st reserve of carriage under contract, and a 2nd reserve by impressment being instituted, as above noted, there remains the necessity for establishing reserves of "matériel."

In this matter we are remarkably deficient.

A proportion of reserve carts and harness should be kept up at frontier arsenals, and also sets of spare wheels for ordinary hackeries, &c., one great fault of such carts being that their wheels are hardly ever round, and are frequently hardly tired or not tired at all.

It seems desirable also to utilise the old pattern artillery wheels, of which there must be many in the country, and also the various siege part carriages and carts of all sorts which are now stored in arsenals, and of which many are no doubt obsolete. Certainly, there are many carriages of this description now idle in Peshawur.

In point of fact, a good pair of wheels and an axle, with a cart floor and pole fitted for bullock draft, can be readily and cheaply converted into an excellent cart for stores by the addition of sides of poles and ropes as in ordinary hackeries. Reserves of sick carriage should also be maintained, camel-kujwahs, such as are maintained by the Punjab Frontier Force, were proved to be very valuable in the late campaign.

Many cavalry officers consider mule cacolets absolutely necessary for the service of their arm.

Ambulance carts and wagons for the conveyance of sick and wounded from field hospitals to the rear are desirable of suitable pattern.

Suitable mule panniers for medical stores and medicines are not in stock, though some have been lately made at Peshawur.

The arrangements for pack carriage of artillery ammunition require perfecting. Major Hennessy, 15th Sikhs, gives particulars regarding the want of proper cases or bags for shell, &c.

The service small arm ammunition box is far too heavy, elaborate and expensive for service, especially in a dry climate like Afghanistan, and it appears desirable that while mule carriage is maintained for the first reserve of small arm ammunition, some light cart, such as a modification of the ordinary "bamboo cart," should be adopted for the carriage of 2nd reserve ammunition (100 rounds per man). Such a cart would probably carry six boxes and might be drawn by one mule or pony. In difficult places it could easily be lightened and passed over by hand.

Five hundred men would require 14 carts and 14 mules and 14 drivers, against 42 mules and 14 drivers (at 1 driver to 3 mules), and the saving in forage of 28 mules per battalion is in itself considerable.

It is already intended to maintain a light service pattern of tent for hire to officers. A smaller pattern of squad tent for men is almost a necessity, and a standard pattern of box for officers' kits and for officers is very desirable, such as is in use with German Army.

On the outbreak of war, the permanent establishment of carriage should be employed to the utmost with the advanced portions of the troops in an enemy's country, being certainly the best trained, equipped and disciplined.

The etappen duties, or those along the line of communication in the enemy's country, should be taken over by the 1st reserve, or registered contract carriage, which will be next in quality, and this service would be officered and administered by officers and subordinates who have passed a probationary training in the permanent establishment.

The 2nd reserve of registered carriage, not under contract, should be taken up by the civil power or Commissariat, 1st, for work in India, in lieu of that withdrawn across the frontier from the various stations; 2nd, for duties in rear of and up to the permanent base of operations; and, 3rd, for the formation of reserve carriage depôts to supply losses incurred in the enemy's territory.

And it should be understood that all carriage beyond the permanent base is solely and entirely under the orders of the Commander-in-Chief, and that all drafts sent up to it to replace casualties, should be purchased animals, &c., for the advanced section in every case, and for the etappen, purchased vehicles and animals when the first reserve (under contract) fails.

The object of this is first to prevent the desertion of impressed carriage and attendants, and, secondly, to remove the difficulty of working hired carts and cattle on a proper etappen system.

This difficulty is that each cart loaded at the permanent base should be conveyed, without "breaking bulk," right through to its destination by relays of cattle, and if the cart and the cattle belong to the same owner at starting, it has been proved a matter of impossibility to arrange for their separation on the journey.

Besides which, the owners of cattle under contract will be better pleased to work given stages, with which they can become acquainted and within which they can make their personal arrangements, than to be started off on very long through journeys whose terrors their minds always exaggerate. And on any long line of etappen, some stages can best be worked by bullocks and others by mules, &c., and the nature of the draft can be changed accordingly.

It is impossible to lay too great stress on the value of wheeled carriage in communications. Every transport officer remarks on the hardship to pack animals of keeping those first loaded waiting until all are loaded and ready to start. And there is practically a very narrow limit to the amount of convoy of pack animals which can be got off from any station in each day. But with a train of loaded carts all can be harnessed and started at once, and they will arrive at once and compactly, allowance being made for the length of the column of route, and for unavoidable break downs by the way.

Colonel Mignon's paper on cart carriage gives very valuable opinions on this subject.

In conclusion, the above will give a general sketch of the nature of the organisation for transport in peace and in war, but when the time arrives for working out details, a pamphlet may be prepared which shall give in detail all the organisation necessary for the transport of a regiment, brigade, division, or army corps.

This would show—

(*1st*) Regimental transport,
(*2nd*) Divisional ,,
(*3rd*) General ,,

And for the proper establishment of officers, native officers, non-commissioned officers and men and artificers requisite for each, the latter being organised in units to be called divisions of transport of about 1,000 animals each.

It would also contain clear information as to the care of each description of animals used, namely, elephants, camels, mules, ponies, donkeys, bullocks, together with notes upon the treatment of coolies and the use of boats for inland transport; and to aid in this object a circular will be issued calling for memoranda on these subjects, also regarding breeding of mules and camels and bullocks. Two very valuable papers have already been furnished to the United Service Institution, one on the care of camels by Veterinary Surgeon Steel, and one on mules by Veterinary Surgeon Meyrick.

Detailed information, with drawings, should also be given as to the best description of pack saddles for the various animals, with instructions illustrated to show the best way of making up different kinds of loads and of loading the animals.

It should also contain information regarding the repair of gear of all sorts, as well as regarding the best description and repair of carts.

Finally, it will contain instructions regarding the transport of animals by rail and sea.

Dated Simla, 29th September 1879.

Memo. from—Colonel C. C. JOHNSON, Offg. Quarter Master General in India,

To—The General Officer Commanding, Kuram Field Force.

His Excellency the Commander-in-Chief in India is pleased to direct that the accompanying scales are to be strictly adhered to by all troops taking the field, in supersession of all previous circulars, and that they are on no account to be exceeded.

Scales of Camp Equipage, Baggage, and Followers.

I.

GENERAL OFFICERS.

Camp Equipage.	*Baggage.*	*Followers.*
Not to exceed ... ... 200 lbs.	Personal baggage ... ... 160 lbs.	1 Personal servant each.
Mess tent for every 8 officers and under. } 1 Lascar pâl or 36 lb per officer.	Cooking utensils, each ... 10 „	2 Servants for each authorised charger.
	Mess stores, each ... ... 40 „	

Remarks.—One extra servant for every three officers, specially to cover mess servants.

II.

STAFF AND HEADS OF DEPARTMENTS.

Camp Equipage.	*Baggage.*	*Followers.*
Not to exceed ... ... 150 lbs.	Personal baggage ... ... 120 lbs.	1 Personal servant.
Mess tent for every 8 officers, and under. } 1 Lascar pâl or 36 lbs. per officer.	Cooking utensils, each ... 10 „	2 Servants for each authorised charger.
Offices, Brigade and Divisional ... 150 lbs	Mess stores, each .. ... 40 „	Departmental, Warrant and Non-Commissioned Officers. } 1 Servant.
Departmental, Warrant and Non-Commissioned Officers. } 1 Lascar tent or pâl.	Offices, Brigade and Divisional ... 80 „	
	Departmental, Warrant and Non-Commissioned Officers. } 60 „	
	Stable gear per authorized charger 15 „	

Remarks.—One extra servant for every three officers, specially to cover mess servants.

III.

BATTERY OF HORSE ARTILLERY.

Camp Equipage.	*Baggage.*	*Followers.*
Commanding officer .. 150 lbs.	Commanding officer ... 120 lbs.	Officers { 1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*c*).
Other officers ... ... 80 „	Other officers ... ... 80 „	
(*a*) Medical Subordinates. } Staff Sergeant's tent or lascar pâl.	Medical Subordinates (*b*) ... 60 „	
	Hospital Assistant (*b*) ... 40 „	
Hospital Assistant ... ... 40 lbs.	Non-commissioned officers and men ... ... 30 „	6 Cooks and dhobies, the proportion of each class, not exceeding 6 in all, to be arranged regimentally.
Non-commissioned officers and men. } 22 per tent, sepoy, of 2 pâls.	Followers ... ... 10 „	1 Grass-cutter per horse.
Followers .. { 50 per tent, sepoy, of 2 pâls.	Artificers ... ... 20 „	Syces { For 10 per cent. of troop horses. 1 for each spare horse.
Quarter Guard ... 1 Lascar pâl.	Cooking utensils— All officers, each ... ... 10 „	3 Puckalees and 3 bhisties.
Mess tent for every 8 officers, and under. } 1 Lascar pâl or 36 lbs. per officer.	Non-commissioned officers and men. } 360 „	3 Sweepers and 2 buldars.
Hospital .. { 1 Lascar pâl for 8 sick at 10 per cent. on strength of troops and followers.	Mess stores, each officer ... 40 „	1 Muleteer to 3 mules.
	Quarter Master's stores (*e*) ... 400 „	1 Camelman to 4 camels.
	Medical stores ... ... 2 camels.	6 Bearers per doolie } Exclusive of mates, one for every four doolies, and for every six dandies.
	Camp hospital furniture ... 1 camel.	4 Bearers per dandie }
	Veterinary stores ... ... 1 mule.	Sick carriage for 7 per cent of troops and for 3 per cent of followers, inclusive of doolies, dandies, and camel kajawahs (*d*) (*g*).
	Stable gear, officers, per horse .. 15 lbs.	Hospital establishment, as per regulation for field service.
	Bullock gear ... ... 3 camels.	Bazar, 2 per cent. on strength including native establishments of battery; selection by commanding officer.
	Stable gear per horse of battery ... 6 lbs.	All drivers.
	3rd blanket of horses 3 camels.	All artificers and workmen absolutely necessary for executing repairs.
	Camel puckals for non-commissioned officers and men (*f*) ... 3 pairs.	
	Camel puckals per 40 followers (*f*). } 1 pair.	

Remarks—

(*a*)—To accommodate also hospital office, surgery, medical and surgical stores.

(*b*)—Including cooking utensils.

(*c*)—Specially to cover mess servants.

(*d*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.

(*e*)—Also in addition, poshteens for 15 per cent. of strength for night duties at $2\frac{1}{16}$ lbs. per poshteen, and one extra blanket $4\frac{3}{4}$ lbs, and one water-proof sheet $2\frac{1}{2}$ lbs. for non-commissioned officers and men

(*f*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.

(*g*)—7 per cent for troops to consist of doolies and dandies for 5 per cent., and camel kajawahs for 2 per cent. The proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum consequent on bearers not being procurable. Proportion of each class of carriage for followers to be fixed locally.

IV.

Battery of Field Artillery.

Camp Equipage.	*Baggage.*	*Followers.*
Commanding officers ... 150 lbs. Other officers ... ... 80 „ Medical Subordinates (*a*). { Staff Sergeants' tent or Lascar pâl. Hospital Assistants ... 40 lbs Non-Commissioned officers and men. { 22 per tent, sepoy, of 2 pâls. Followers { 50 per tent, sepoy, of 2 pâls. Quarter Guard ... 1 Lascar pâl. Mess tent for every 8 officers, and under. { 1 Lascar pâl or 36 lbs. per officer. Hospital ... { 1 Lascar pâl for 8 sick at 10 per cent. on strength of troops and followers.	Commanding officer ... 120 lbs. Other officers ... ... 80 „ Medical Subordinates (*b*) ... 60 „ Hospital Assistants (*b*) ... 40 „ Non-Commissioned officers and men ... ... 30 „ Followers ... ... 10 „ Artificers ... ... 20 „ Cooking utensils— All officers, each ... ... 10 „ Non-Commissioned officers and men ... ... 360 „ Mess stores, each officer ... 40 „ Quarter Master's stores (*e*), calculated for 3 months' supply ... 400 „ Medical stores ... ... 2 camels. Camp hospital furniture ... 1 camel. Veterinary stores ... ... 1 mule. Stable gear, officers, per horse ... 15 lbs. Bullock gear ... ... 3 camels. Stable gear per horse of battery 6 lbs. 3rd blanket of horses ... 2 camels. Camel puckals (*f*) for Non-Commissioned officers and men ... 3 pairs. Camel puckals (*f*) per 40 followers ... ... 1 pair.	Officers { 1 Personal servant each 2 Servants for each authorised charger. 1 Extra servant for every 3 officers (*c*). 6 Cooks and dhobies, the proportion of each class, not exceeding 6 in all, to be arranged regimentally. 1 Grass-cutter per horse. Syces ... { For 10 per cent. of troop horses. 1 for each spare horse. 3 Puckalees and 3 bhisties. 3 Sweepers and 2 bildars. 1 Muleteer to 3 mules. 1 Camelman to 4 camels. 6 Bearers per doolie / 4 Bearers per dandie { Exclusive of mates, one for every four doolies, and for every six dandies. Sick carriage for 7 per cent. of troops and for 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs (*d*) (*g*). Hospital establisament, as per regulation for field service. Bazar, 2 per cent. on strength, including native establishments of battery; selection by commanding officer. All drivers. All artificers and workmen absolutely necessary for making repairs.

V.

Battery of Heavy Artillery.

Camp Equipage.	*Baggage.*	*Followers.*
Commanding officer ... 150 lbs. Other officers ... ... 80 „ Medical Subordinates (*a*). { Staff Sergeants' tent, or Lascar pâl. Non-Commissioned officers and men. { 22 per tent, sepoy, of 2 pâls. Followers ... 50 per tent, sepoy, of 2 pâls. Hospital ... { 1 Lascar pâl for 8 sick, at 10 per cent. on strength of troops and followers. Quarter Guard ... 1 Lascar pâl. Mess tent for every 8 officers, and under. { 1 Lascar pâl. or 36 lbs. per officer.	Commanding officer ... 120 lbs. Other officers ... ... 80 „ Medical Subordinates (*b*) ... 60 „ Non-Commissioned officers and men ... ... 30 „ Followers ... ... 10 „ Artificers ... ... 20 „ Cooking utensils— All officers each ... ... 10 „ Non-Commissioned officers and men ... ... 180 „ Quarters Master's stores (*e*), calculated for 3 months' supply ... 400 „ Medical stores ... ... 2 camels. Camp hospital furniture ... 1 camel. Veterinary stores ... ... 1 mule. Stable gear, officers, per horse ... 15 lbs. Bullock gear ... ... 12 camels Stable gear, per horse of battery 6 lbs. Mess stores, each officer ... 40 „ Camel puckals (*f*) for Non-Commissioned officers and men ... 2 pairs. Camel puckals per 40 followers (*f*) 1 pair.	Officers ... { 1 Personal servant each. 2 Servants for each authorised charger 1 Extra servant for every 3 officers. (*c*) Non-Commissioned officers and men. { 3 Cooks and dhobies, the proportion of each class, not exceeding 3 in all, to be arranged regimentally. 5 Syces for battery horses. 1 Grass-cutter per horse, or 1 Gorawala and 1 pony for 2 horses. 2 Puckalees and 2 bhisties. 3 Sweepers and 2 bildars. 1 Muleteer to 3 mules. 1 Camelman to 4 camels. 6 Bearers per doolie / 4 Bearers per dandie { Exclusive of mates, one for every four doolies, and for every six dandies. Sick carriage for 7 per cent. of troops and for 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs (*d*) (*g*). Hospital establishment, as per regulation for field service. Bazar, 2 per cent. on strength, including native establishments of battery; selection by commanding officer. All drivers. All artificers and workmen absolutely necessary for executing repairs.

Remarks—

(*a*)—To accommodate also hospital office, surgery, medical and surgical stores.
(*b*)—Including cooking utensils.
(*c*)—Specially to cover mess servants.
(*d*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.
(*e*)—Also in addition, poshteens for 15 per cent. of strength for night duties at 2⅛ lbs., per poshteen, and one extra blanket 4½ lbs., and one water-proof sheet 2½ lbs., for non-commissioned officers and men.
(*f*)—For troops proceeding *vid* Jacobabad and Quetta only, in addition to regimental establishments.
(*g*)—7 per cent. for troops to consist of doolies and dandies for 5 per cent., and camel kajawahs for 2 per cent. The proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum consequent on bearers not being procurable. Proportion of each class of carriage for followers to be fixed locally.

VI.

Mountain Battery (British).

Camp Equipage.

Commanding officer	150 lbs.
Other officers	80 „
Medical Subordinates (*a*).	1 Staff Sergeants' tent or 1 Lascar pál.
Hospital Assistant	40 lbs.
Non-Commissioned officers and men.	Authorised equipment
Hospital	Authorised equipment.
Followers	50 per tent, sepoy, of 2 pâls.
Quarter Guard	Authorised equipment.
Mess tent for every 8 officers, and under	1 Lascar pâl or 36 lbs. per officer.

Baggage.

Commanding officer	120 lbs.
Other officers	80 „
Medical Subordinates (*b*)	60 „
Hospital Assistants (*b*)	40 „
Non-Commissioned officers and men	30 „
Artificers and drivers (Native)	20 „
Followers	10 „
Cooking utensils—	
All officers, each	10 „
British Non-Commissioned officers and men	240 „
Native drivers and farriers	240 „
Quarter Master's stores (*e*), calculated for 3 months' supply	400 „
Medical stores	3 mules.
Camp hospital furniture	1 camel.
Veterinary stores	1 mule.
Stable gear, officers, per horse	15 lbs.
Stable gear of horses of battery, each	6 „
Mess stores, officers, each	40 „
Camel puckals for Non-Commissioned officers and men (*f*).	2 pairs.
Camel puckals for native drivers and farriers (*f*).	2 „
Camel puckals per 40 followers (*f*).	1 pair.

Followers.

Officers	1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*c*).
British Non-Commissioned officers and men.	4 Cooks and dhobies, the proportion of each class, not exceeding 4 in all, to be arranged regimentally.
Drivers and farriers	3 cooks.
4 Syces for battery horses.	
1 Grass-cutter per horse, or	
1 Gorawala and 1 pony per 2 horses.	
2 Puckalees and 2 bhisties.	
2 Sweepers.	
1 Muleteer to 3 mules.	
1 Camelman to 4 camels.	
6 Bearers per doolie 4 Bearers per dandie	Exclusive of mates, one for every four doolies, and for every six dandies.
Sick carriage for 7 per cent. of troops and for 3 per cent. of followers, inclusive of doolies, dandies and camel kajawahs (*d*) (*g*).	
Hospital establishment, as per regulations for field service.	
Bazar, 2 per cent. on strength, including native establishments of battery; selection by commanding officer.	
All drivers.	
All artificers and workmen absolutely necessary for executing repairs.	

Remarks—

(*a*)—To accommodate also hospital office, surgery, medical and surgical stores.
(*b*)—Including cooking utensils.
(*c*)—Specially to cover mess servants.
(*d*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.
(*e*)—Also in addition, poshteens for 15 per cent. of strength for night duties at $2\frac{1}{16}$ lbs., per poshteen, and one extra blanket $4\frac{3}{4}$ lbs., and one waterproof sheet $2\frac{1}{2}$ lbs., for non-commissioned officers and men.
(*f*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.
(*g*)—7 per cent. for troops to consist of doolies and dandies for 5 per cent, and camel kajawahs for 2 per cent. The proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum consequent on bearers not being procurable. Proportion of each class of carriage for followers to be fixed locally.

VII.

Mountain Battery (Native).

Camp Equipage

Commanding officer	150 lbs.
Other officers	80 „
Native officers and hospital assistant.	40 „
Native non-commissioned officers and men.	Authorised equipment.
Hospital	Authorised equipment.
Followers	50 per tent, sepoy, of 2 pâls
Quarter Guard	Authorised equipment.
Mess tent for every 8 officers, and under.	1 Lascar pâl, or 36 lbs. per officer.

Baggage.

Commanding officer	120 lbs.
Other officers	80 „
Native officers and hospital assistant (*a*).	40 „
Native non-commissioned officers and men, including all drivers and artificers	20 „
Cooking utensils—	
All officers, each	10 „
Non-commissioned officers and men	120 „
Followers, each	10 „
Quarter Master's stores (*d*) calculated for 3 months' supply	400 „
Camp hospital furniture Hospital equipment	2 mules.
Veterinary stores	1 mule.
Stable gear, officers, per horse	15 lbs.
Stable gear of battery horses, each.	6 „
Mess stores, each officer	40 „
Camel puckals (*e*) for non-commissioned officers and men.	2 pairs in winter. 5 pairs in summer.
Camel puckals per 40 followers (*e*)	1 pair.

Followers.

British Officers	1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*b*).
Native Officers	1 Servant to every two officers.
Non-commissioned officers and men.	2 Cooks if necessary.
5 Syces for battery horses.	
1 Grass-cutter per horse, or	
1 Gorawala and 1 pony per 2 horses.	
1 Puckalee and 1 bhistie.	
2 Sweepers.	
1 Muleteer to 3 mules.	
1 Camelman to 4 camels.	
Sick carriage for 5 per cent. of troops and 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs (*c*) (*f*).	
6 Bearers per doolie 4 Bearers per dandie.	Exclusive of mates, one for every four doolies, and for every six dandies.

Remarks—

(*a*)—Including cooking utensils.
(*b*)—Specially to cover mess servants
(*c*)—One chagul for each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.
(*d*)—Also in addition, poshteens for 15 per cent, of strength of night duties at $2\frac{1}{16}$ lbs. per poshteen, and one extra blanket $4\frac{3}{4}$ lbs., and one water-proof sheet $2\frac{1}{2}$ lbs., for non-commissioned officers and men.
(*e*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishment.
(*f*)—Proportion of each class of carriage for troops and followers to be fixed locally; but the proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum, as bearers are not procurable.

MOUNTAIN BATTERY (NATIVE),—*continued.*

Camp Equipage.	*Baggage.*	*Followers.*
		Hospital establishment, as per regulation for field service. Bazar, 2 per cent. on strength, including native establishments of battery; selection by commanding officer. All drivers. All artificers and workmen absolutely necessary for executing repairs.

VIII.

REGIMENT OF BRITISH CAVALRY.

Camp Equipage.		*Baggage.*		*Followers.*	
Commanding officer	150 lbs.	Commanding officer	120 lbs.	Officers ...	1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*c*).
Other officers	80 „	Other officers	80 „		
Medical Subordinates (*a*)	1 Staff Sergeants' tent or Lascar pâl.	Medical Subordinates (*b*) ..	60 „		
		Hospital Assistants (*b*) .	40 „		
Hospital Assistant	40 lbs.	Non-commissioned officers and men	30 „	4 Cooks and dhobies per troop.	Proportion of each class, not exceeding 4 in all, to be arranged regimentally.
Non-Commissioned officers and men.	22 per tent, sepoy, of 2 pâls.	Followers	10 „		
		Cooking utensils—		1 Grass-cutter per horse, or	
Followers ...	50 per tent, sepoy, of 2 pâls.	All officers, each	10 „	1 Gorawala and 1 pony for 2 horses.	
		Non-Commissioned officers and men per troop	240 „	1 Native farrier per troop	
Office, Regimental	150 lbs.	Quarter Master's stores (*e*), calculated for 3 months' supply	1,200 „	Syces ...	15 per cent. on number of troop horses.
Quarter and Rear Guards.	1 tent, sepoy, of 2 pâls and 1 lascar pâl.	Medical stores	5 camels.	1 Moochi per troop.	
		Camp hospital furniture ...	1 camel.	2 Puckalees and 2 bhisties per troop.	
Mess tent for every 8 officers, and under.	1 Lascar pâl or 36 lbs. per officer.	Veterinary stores	3 mules.	9 Sweepers and 3 bildars per regiment.	
		Stable gear, officers, and per horse troop, including spare saddles	20 lbs.	1 Muleteer to 3 mules.	
Hospital ...	1 Lascar pâl for 8 sick at 10 per cent on strength of troops and followers.	Office, Regimental	80 „	1 Camelman to 4 camels.	
		Mess stores, officers, each ...	40 „	6 Bearers per doolie ...	Exclusive of mates, one for every four doolies, and for every six dandies.
		Signalling implements ..	60 „	4 Bearers per dandie ...	
Workshops ...	1 Lascar pâl.	Armourer's tools and stores ...	1 mule.	Sick carriage for 7 per cent. of troops and for 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs (*d*) (*g*).	
		1 Light forge with country bellows, shoeing iron and charcoal.	1 camel or 2 mules.	Hospital establishment, as per regulation for field service.	
		Saddlers and saddle-tree maker's tools	2 mules.	Bazar, 2 per cent. on strength of regiment; selection by commanding officers.	
		Arms of sick per troop ...	½ camel.		
		Camel puckals (*f*) for Non-Commissioned officers and men per troop. ...	2 pairs.		
		Camel puckals (*f*) per 40 followers...	1 pair.		
		Paymaster's office, inclusive of records and tent.	2 mds. or ½ camel.		
		Camp entrenching tools* ...	552 lbs.		

* Scale of Camp entrenching tools per regiment .. Bill-hooks . . . 100 = 150 lbs. Shovels .. .. 24 = 138 „ Spades . .. 12 = 60 „ Axes, pick .. .. .. 24 = 204 „

Remarks—

(*a*)—To accommodate also hospital office, surgery, medical and surgical stores.
(*b*)—Including cooking utensils.
(*c*)—Specially to cover mess servants.
(*d*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.
(*e*)—Also in addition, poshteens for 15 per cent. of strength for night duties at 2 12/16 lbs. per poshteen, and one extra blanket 4¾ lbs., and one water-proof sheet 2¾ lbs., for non-commissioned officers and men.
(*f*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.
(*g*)—7 per cent. for troops to consist of doolies and dandies for 5 per cent., and camel kajawahs for 2 per cent. The proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum consequent on bearers not being procurable. Proportion of each class of carriage for followers to be fixed locally.

IX.

REGIMENT OF BRITISH INFANTRY.

Camp Equipage.		*Baggage.*		*Followers.*	
Commanding officer	150 lbs.	Commanding officer	120 lbs.	Officers ...	1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*c*).
Other officers	80 „	Other officers	80 „		
Medical Subordinates (*a*).	1 Staff Sergeants' tent or lascar pâl.	Medical Subordinates (*b*) ...	60 „		
		Non-commissioned officers and men	30 „		
Non-Commissioned officers and men.	22 to 1 tent, sepoy, of 2 pâls.	Followers	10 „		

Remarks—

(*a*)—To accommodate also hospital office, surgery, medical and surgical stores.
(*b*)—Including cooking utensils.

REGIMENT OF BRITISH INFANTRY,—*continued.*

Camp Equipage	*Baggage.*	*Followers.*
Hospital { 1 Lascar pâl for 8 sick at 10 per cent. on strength of troops and followers.	Cooking utensils—	4 Cooks and dhobies per company. Proportion of each class, not exceeding 4 in all, to be arranged regimentally.
Followers { 50 per tent, sepoy, of 2 pâls.	All officers, each ... ... 10 lbs.	2 Puckalees and 2 bhisties per company.
Office ... ... 150 lbs.	Non-Commissioned officers and men per company. } 240 „	12 Sweepers and 4 bildars per regiment.
Quarter and Rear Guards. } 1 tent, sepoy, of 2 pâls and 1 lascar pâl.	Quarter Master's stores (*e*), calculated for 3 months' supply. } 1,200 „	1 Muleteer to 3 mules.
Mess tent for every 8 officers, and under. } 1 Lascar pâl or 36 lbs. per officer.	Medical stores ... .. 6 camels.	1 Camelman to 4 camels.
	Camp hospital furniture ... 1 camel.	6 Bearers per doolie { Exclusive of mates, one for every four doolies, and for every six dandies
	Office .. .. .. 80 lbs.	4 Bearers per dandie {
	Entrenching tools.* { 1 camel for 22 picks and 22 shovels in kajawahs, or 2 mules	Sick carriage for 7 per cent. of troops and for 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs. (*d*) (*g*).
	{ 1 camel for bill hooks and felling axes.	Hospital establishment, as per regulation for field service.
	Armourers' tools and stores ... 1 mule.	Bazar, 2 per cent on strength of regiment; selection by commanding officer.
	Signalling implements ... 60 lbs.	
	Arms of sick per company .. ½ camel.	
	Mess stores, officers, each . 40 lbs.	
	Camel puckals (*f*) per company 2 pairs.	
	„ „ (*f*) „ 40 followers. } 1 pair	
	Paymaster's office, inclusive of records and tent. } 2 maunds or ½ camel.	

* Scale of entrenching tools ... { Felling axes, 2 per company. Pick axes, 15 per cent. Shovels 15 „ Bill-hooks 39 „ } of strength of regiment

Remarks—

(*c*)—Specially to cover mess servants.

(*d*)—One chagul to each doolie or dandie, and 2 chaguls per pair of camel kajawahs, when such are used.

(*e*)—Also in addition, poshteens for 15 per cent. of strength for night duties at 2⅛ lbs. per poshteen, and one extra blanket 4½ lbs, and one water-proof sheet 2½ lbs. for non-commissioned officers and men.

(*f*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.

(*g*)—7 per cent. for troops to consist of doolies and dandies for 5 per cent., and camel kajawahs for 2 per cent. The proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum consequent on bearers not being procurable. Proportion of each class of carriage for followers to be fixed locally.

X.

GENERAL SERVICE COMPANY OF SAPPERS AND MINERS.

Camp Equipage.	*Baggage.*	*Followers.*
Commanding officer .. 150 lbs.	Commanding officer ... 120 lbs.	British officers. { 1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*b*).
Other officers ... ... 80 „	Other officers .. .. 80 „	
Native officers and hospital assistant. } 40 „	Native officers and hospital assistants (*a*). } 40 „	
British Non-Commissioned officers. } 1 Lascar pâl.	British Non-Commissioned officers. } 30 „	Native officers ... 1 Servant to 2 officers.
Native Non-Commissioned officers and men. } 44 to 1 tent, sepoy, of 2 pâls.	Native Non-Commissioned officers and men and artificers. } 20 „	3 Cooks and dhobies for Non-Commissioned officers and men. Proportion of each class, not exceeding 3 in all, to be arranged regimentally.
Hospital, native (*f*). { 1 Lascar pâl for 12 sick at 8 per cent. on strength of troops and followers.	Cooking utensils—	2 Puckalees and 2 bhisties.
	All officers, each ... 10 „	2 Sweepers and 1 bildar.
	British Non-Commissioned officers. } 20 „	1 Muleteer to 3 mules.
	Native Non-Commissioned officers and men. } 190 „	1 Camelman to 4 camels.
Followers ... { 50 per tent, sepoy, of 2 pâls.	Quarter Master's stores (*d*) calculated for 3 months' supply. } 400 „	Sick carriage for 5 per cent. of troops and 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs, (*c*) (*g*).
Quarter Guard ... 1 Lascar pâl.	Hospital furniture and equipment, 2 mules.	
Mess tent for every 8 officers, and under { 1 Lascar pâl, or 36 lbs. per officer.	Followers .. ... 10 lbs.	6 Bearers per doolie { Exclusive of mates, one for every four doolies, and for every six dandies.
	Arms of sick ... ... ½ camel.	4 Bearers per dandie {
	Mess stores, officers, each ... 40 lbs.	Hospital establishment, as per regulation for field service.
	Camel puckals for non-commissioned officers and men (*e*). { 1 pair in winter, 4 pairs in summer.	Bazar, 2 per cent. on strength; selection by commanding officer.
	Camel puckal per 40 followers (*e*) 1 pair.	All artificers and workmen absolutely required for executing repairs.

Remarks—

(*a*)—Including cooking utensils.

(*b*)—Specially to cover mess servants.

(*c*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.

(*d*)—Also in addition, poshteens for 15 per cent. of strength for night duties at 2⅛ lbs. per poshteen, and one extra blanket 4½ lbs., and one waterproof sheet 2½ lbs., for non-commissioned officers and men.

(*e*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.

(*f*)—British non-commissioned officers to be treated when sick in the nearest British hospital.

(*g*)—Proportion of each class of carriage for troops and followers to be fixed locally; but the proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum, as bearers are not procurable.

XI.

Regiment of Native Cavalry.

Camp Equipage.

Commanding officer	... 150 lbs.
Other officers ...	... 80 „
Native officers and hospital assistant (*g*)	40 „
Per soldier (*f*) 12 lbs. / Per follower... 10 „	To be arranged regimentally.
Hospital ...	1 Lascar pâl for 12 sick at 8 per cent on strength of troops and followers.
Office	.. 150 lbs.
Guards (*g*) ...	2 Lascar pâls.
Mess tent for every 8 officers and under.	1 Lascar pâl or 36 lbs. per officer.

Baggage.

Commanding officer ...	... 120 lbs.
Other officers	... 80 „
Native officers and hospital assistant (*a*) (*f*).	40 „
Non-Commissioned officers and men, including artificers (*f*)	... 20 „
Cooking utensils—	
All officers, each ...	... 10 „
Non-commissioned officers and men per troop.	160 „
Quartermaster's stores (*d*) (*i*), calculated for 3 months' supply	... 800 „
Medical stores, including hospital furniture and equipment ...	3 camels
Veterinary stores ...	... 3 mules.
Followers ...	... 10 lbs.
Stable gear, officers, and per horse troop.	15 „
Office	... 80 „
Mess stores, officers, each	... 40 „
Camel puckals (*e*) for Non-Commissioned officers and men per troop.	1 pair in winter. 4 pairs in summer.
Camel puckals (*e*) per 40 followers ...	1 pair.
Armorer's tools and stores, forge and saddlers' shop (*i*)	10 mules.
Arms of sick when armed with snider carbine (*i*)	½ camel per squadron.
Camp entrenching tools*	... 162 lbs.

Followers.

Officers ...	1 Personal servant each. 2 Servants for each authorised charger. 1 Extra servant for every three officers (*b*).
Native Officers.	1 Servant to every 2 officers 1 Syce and 1 pony for each native officer.
1 Grass-cutter per horse, or	
1 Gorawala and 1 pony for 2 horses.	
2 Cooks per troop if necessary.	
1 Puckalee and 1 bhistie per troop.	
1 Sweeper per troop and 2 bildars per regiment.	
1 Muleteer to 3 mules.	
1 Camelman to 4 camels.	
Sick carriage for 5 per cent. of troops and 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs, (*c*) (*k*)	
6 Bearers per doolie / 4 Bearers per dandie	Exclusive of mates, one for every four doolies, and for every six dandies
Hospital establishment, as per regulation for field service.	
Bazar, 2 per cent. on strength of regiment, selection by commanding officer (*f*)	
All artificers and workmen absolutely necessary for making repairs (*h*).	

* Scale of camp entrenching tools per regiment ... Axes felling ... ... 9=40½ lbs. / Picks ... ... 9=76½ „ / Spades or mamooties ... 9=45 „

Remarks—

(*a*)—Including cooking utensils.

(*b*)—Specially to cover mess servants.

(*c*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.

(*d*)—Also in addition, poshteens for 15 per cent of strength for night duties at 2$\frac{1}{16}$ lbs. per poshteen, and one extra blanket 4$\frac{3}{4}$ lbs., and one water-proof sheet 2$\frac{1}{2}$ lbs., for non-commissioned officers and men.

(*e*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishment.

(*f*)—Minimum bunniah establishment to be certified by commanding officer, and one camel will be allowed for each bunniah's shop.

(*g*)—No treasure chest allowed.

(*h*)—Moonshi or writer included under this head.

(*i*)—This carriage to be obtained by indent on Commissariat Department on payment.

(*j*)—Camp equipage to be arranged for regimentally, and as well as the baggage to be carried regimentally.

(*k*)—Proportion of each class of carriage for troops and followers to be fixed locally; but the proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum, as bearers are not procurable.

XII.

Regiment of Native Infantry.

Camp Equipage.

Commanding officer	... 150 lbs.
Other officers ...	... 80 „
Native officers and hospital assistant ..	.. 40 „
Native non-commissioned officers and men.	44 to 1 tent, sepoy, of 2 pâls.
Hospital	1 Lascar pâl for 12 sick at 8 per cent on strength of troops and followers
Followers ...	50 per tent, sepoy, of 2 pâls.
Office ..	. 150 lbs.
Guards ...	2 Lascar pâls.
Mess tent for every 8 officers and under	1 Lascar pâl. or 36 lbs. per officer.

Baggage.

Commanding officer	... 120 lbs
Other officers ...	... 80 „
Native officers (*a*) and hospital assistant.	40 „
Non-Commissioned officers and men.	20 „
Cooking utensils—	
All officers, each	... 10 „
Non-Commissioned officers and men per company.	160 „
Followers . ..	10 lbs.
Quartermaster's stores (*d*), calculated for 3 months' supply	800 „
Medical stores including hospital furniture and equipment.	4 camels.
Office	... 80 lbs.
Entrenching tools*	1 camel per 22 picks, and 22 shovels in kajawahs, or two mules. 1 camel for bill hooks and felling axes.
Armourer's tools and stores	... 1 mule.
Arms of sick per company	... ½ camel.
Mess stores, officers, each	... 40 lbs.
Camel puckals (*e*) per company.	1 pair in winter, 4 pairs in summer.
Camel puckals (*e*) per 40 followers ...	1 pair.

Followers.

British Officers.	1 Personal servant each. 2 Servants per each authorised charger. 1 Extra servant for every three officers (*b*),
Native officers	... 1 Servant to every two officers.
2 Cooks per company if necessary.	
1 Puckalee and 1 bhistie per company	
1 Sweeper per company, and 2 bildars per regiment.	
1 Muleteer to 3 mules.	
1 Camelman to 4 camels.	
Sick carriage for 5 per cent. of troops and 3 per cent. of followers, inclusive of doolies, dandies, and camel kajawahs, (*c*) (*f*).	
6 Bearers per doolie / 4 Bearers per dandie	Exclusive of mates, one for every four doolies, and for every six dandies
Hospital establishment, as per regulations for field service.	
Bazar, 2 per cent. on strength of regiment; selection by commanding officer.	

* Scale of entrenching tools ... Felling axes, 2 per company. / Pick axes. 15 per cent. / Shovels or mamooties 15 „ / Bill hooks . 30 „ ... of strength of regiment.

Remarks—

(*a*)—Including cooking utensils.

(*b*)—Specially to cover mess servants.

(*c*)—One chagul to each doolie or dandie, and two chaguls per pair of camel kajawahs, when such are used.

(*d*)—Also in addition, poshteens for 15 per cent. of strength for night duties at 2$\frac{1}{16}$ lbs. per poshteen, and one extra blanket 4$\frac{3}{4}$ lbs, and one water-proof sheet 2$\frac{1}{2}$ lbs., for non-commissioned officers and men.

(*e*)—For troops proceeding *viâ* Jacobabad and Quetta only, in addition to regimental establishments.

(*f*)—Proportion of each class of carriage for troops and followers to be fixed locally; but the proportion of dandies should exceed that of doolies, and the latter should be reduced to a minimum, as bearers are not procurable.

Scheme and Rules for the Transport Service on the Khyber Line.

1. *General Officer Commanding.*—The entire control of all transport arrangements in the field rests with the General Officer Commanding, whose staff officer in this department will be the Director of Transport.

2. *Director of Transport.*—The Director of Transport, whose post is at the head-quarters of the force or elsewhere if convenient. He will receive over from the Commissariat Department all the cattle, carts, &c., required for regimental, brigade and departmental purposes, and distribute it accordingly.

Director of Transport.

He will have under his charge a reserve of animals—number to be determined according to circumstances—from which to replace casualties.

He will keep up the following books:—

(1.) Register of animals received from the Commissariat, which shall show separately Government cattle and hired animals.

Regarding hired cattle the following particulars will be registered:—

(*a*)—Owner's name, description and district.

(*b*)—Terms on which hired, showing rate of hire, and any special terms agreed to which may differ from the general terms.

(2.) Roll of drivers and other transport servants.

(3.) Register of equipment, shewing receipts and issues.

(4.) Letter Book.

(5.) Cash Account Book.

(6.) Convoy Book, shewing how all the transport is employed.

The transport service will consist of—

I.—Regimental.

II.—Brigade.

III.—General.

3. The Director of Transport will receive a staff salary of Rs. 600 per month in addition to the staff corps pay of his rank. He will make his own arrangements for cash direct with the Controller of Military Accounts.

The Director of Transport will have the following assistants at head-quarters and with the brigade and general transport:—

1 Transport staff officer with a suitable office establishment. — Staff pay Rs. 300, in addition to staff corps or regimental pay of rank and half staff of any permanent appointment he may hold. Allowed to keep two horses.

1 Veterinary Surgeon.

1 Accountant, to be provided by the accounts department, with a suitable office establishment.

1 Paymaster on a staff salary of Rs. 300 per month.

1 General transport officer at Peshawur in charge of all the general transport required for supplies, &c. — Staff pay Rs. 300, in addition to staff corps or regimental pay of rank and half staff of any appointment he may hold permanently. Allowed to keep two horses; and to have at least three clerks for accounts.

1 Assistant general transport officer at the "advanced depôt" to supervise the general transport arrangements, return convoys, &c. — Staff pay Rs. 200, in addition to regimental or staff pay of rank and half staff of any appointment he may hold permanently. Allowed to keep one horse.

1 Veterinary Surgeon, Peshawur.

1 Farrier-major, Peshawur ... } On pay of farrier major on appointment.
1 „ „ advanced depôt ... }

1 Assistant salootrie, Peshawur ... Rs. 27 a month. } With a staff allowance of Rs. 10 a month for men who may be furnished by cavalry regiments.
1 „ advanced depôt ... „ „ }

1 Clerk for accounts, Peshawur ... Account department.
1 „ advanced depôt ... „ „
1 Moonshee, Peshawur ... Rs. 40 a month.
1 „ advanced depot ... „ „
1 Transport sergeant and clerk at Peshawur ... Pay of transport sergeant-major.
1 „ „ „ advanced depot,

Books.

4. The general transport officer will keep up the following books:—

1. Morning state book.
2. Numerical receipt and issue book of all animals received from the Director of Transport.
3. Equipment receipt and issue book.
4. Pay book.
5. Cash account book.
6. Letter book.

He will submit monthly a muster roll of, and pay bill for, the whole of the establishment, to the Director at head-quarters.

He will have under him a reserve of animals (strength to be determined by the Director of Transport) from which to replace casualties.

He will receive into his sick depôt Peshawur and the advance depôt all serious cases of sickness amongst transport animals both general and brigade.

He will report immediately to the Director of Tansport all losses, whether by death, desertion or theft, also all recoveries, giving such particulars as will enable the Director to keep up his register: he will at the same time submit a requisition for animals to replace casualties.

He will receive from the Director of Transport an advance of cash suitable to the circumstances to meet payments becoming due between musters.

He will submit to the Director of Transport a weekly state of carriage, its disposition, &c., and be prepared to meet a call at any time for such a return.

He will have transport officers under him on the scale of 1 per 1,000 animals.

5. The assistant at the advanced depot will be under the orders of the general transport officer at Peshawur, and will keep him fully informed of all arrivals and departures of convoys, deaths and losses of animals belonging to the general transport.

He will keep up—

1. A convoy book. | 2. A letter book. | 3. A cash book.

He will receive into his sick depôt all serious cases of sickness amongst the transport animals both general and brigade.

6. *Brigade Transport Officer.*—There will be a transport officer with each force in—

Brigade Transport Officer.

- Peshawur.
- Khyber.
- Advanced depôt.
- " Force.

} Rs. 200 a month, in addition to regimental or staff corps pay of rank and half staff of any permanent appointment he may be holding. Allowed to keep two horses.

The transport establishment of each will be as follows:—

1 Assistant; a British non-commissioned officer, who will act as clerk.
1 Farrier ... ... Rs. 30 a month.
1 Assistant salootrie ... ... As for Peshawur and advanced depôt

The brigade transport officer will exercise a general supervision over all the transport of his brigade.

He will receive a bi-weekly transport statement from regiments and batteries, and furnish a compiled bi-weekly report, showing casualties, &c, to the Director of Transport.

He will report immediately to the Director of Transport all losses, whether by death, desertion or theft, also all recoveries, giving such particulars as will enable the Director to keep up his register: he will at the same time submit a requisition for animals to replace casualties.

He will obtain a small advance of cash from the Director of Transport for the payment of broken periods caused by discharge, &c.

He will keep up the following books:—

1. Daily state book. | 2. Cash account book. | 3. Letter book.

The transport attached to the brigade, other than regimental, will be under him, and for this he will have the necessary sectional staff per 1,000 animals.

7. *Regimental.*—The transport attached to a regiment of British cavalry or infantry will be placed by the commandant in the charge of an officer, who should not be the quartermaster.

Regimental transport.

No extra pay will attach to his appointment; but officers not already in receipt of horse allowance will be granted that allowance at the rate of Rs. 30 per mensem.

The regimental transport officer will have as his assistants two non-commissioned officers or men to act as clerks as well (all should have a fair knowledge of the native language), and who will receive working pay 8 or 6 annas a day—non-commissioned officer eight annas; private six annas (Paragraph 2095, Pay Code, Part 1).

8 annas a day.
2 annas a day.

The supervision of the transport of a battery of Royal Artillery will be entrusted to a non-commissioned officer, aided by one of the battery Native establishment, all on working pay.

In native batteries and companies of sappers and miners the supervision of the transport will be entrusted to a native non-commissioned officer on working pay. (Paragraph 430, Pay Code, Part 2.)

2 annas a day.

Subadar 8; Jemadar 6, N.-C. Officer and Private 2 annas a day.

In regiments of native cavalry and infantry the supervision of transport will be entrusted to the quartermaster aided by a native officer, also two privates on working pay. (Paragraph 430, Pay Code, Part 2.)

The following books will be kept up by regimental and battery transport officers and non-commissioned officers, clerical assistance being given by the regimental and battery officer when necessary:—

1.—Register of animals received through the brigade transport officer, and their disposal.

2.—Register of equipment, shewing receipts and issues.

3.—Muster-roll book of transport servants.

8. *General scale of subordinate superintendence for brigade and general transport animals.*—

Native Establishment.

Per 100 mules
- 1 Sepoy superintendent to 300 mules at working pay at 2 annas a day.
- 1 Native shoeing smith at Rs. 27 a month.
- 1 Native saddler at Rs. 15 a month, and materials supplied.

1 Muleteer to 3 Government mules at Rs. 8 a month.
1 Camel driver to every 4 camels at Rs. 8 per mensem.
1 Duffadar to every 25 camels at Rs. 10 per mensem.
1 Jemadar to every 100 camels at Rs. 12 per mensem.
1 Naib Chowdry to every 500 camels at Rs. 40 per mensem.
1 Moonshee for each Naib Chowdry at Rs. 20 per mensem.

Scale of artificers for regimental transport, infantry.

1 Native shoeing smith at Rs. 27 a month.
1 Native saddler or Moochee at Rs. 15 a month, and materials supplied.

Ammunition, and three days' supplies.

Composition.	Officers	Native officers, British and Native non commissioned officers and men	Medical Subordinates		Followers		Horses	Battery mules.	Heavy Field Battery, Elephants	Battery and Packal Bullocks	Camp Equipage.		Baggage. *		Ammunition.		Supplies for 3 days	Sick Carriage.	Bearers and Camel-drivers	Camels	Remarks
			British	Native.	Public	Private.					Mules.	Camels	Mules	Camels	1st reserve on mules	2nd reserve on camels.	Camels.				
Divisional Staff	14	..	..	.	.	87	34		.		.	11	.	11½		.	6				*Recapitulation of carriage, exclusive of Battery mules and Battery and Packal bullocks.*
Cavalry Brigade.																					
Brigade Staff	2	.		...	.	15	6		.	.	.	2	..	2		.	1	2,899 British Troops at 7 per cent require 73 doolies of 6 bearers	438		
1 Battery Royal Horse Artillery	6	158	1	1	182	40	216		.	62	.	25	1	31½	.	.	35				
1 Regiments British Cavalry	25	455	2	1	317	161	500			12		65½	4	89		10	76	——— 117 dandies of 4 bearers	468	..	
2 Regiments Native Cavalry	16	1,106	.	2	626	154	1,140					86	9	124	.	26	162				
Divisional Artillery																		——— 39 camels with Khajawas	39	39	
Brigade Staff	2	..	..	...	.	15	6	.			...	2		2	...	..	1	7,183 Native Troops at 5 per cent require 71 doolies of 6 bearers	426	...	
1 Field Battery	5	158	1	1	156	30	161	..		76		24½	1	30½	.	.	29				
1 Heavy Field Battery	5	89	1	..	203	30	16		9	292		19	1	29	...	...	38	——— 142 dandies of 4 bearers	568	...	
1 Garrison Battery	5	87	1	...	14	7				2	..	14		16½	.	.	4				
1 Mountain Battery (British)	5	95	1	1	176	30	16	178	.	3	39	...	57	..	..	.	21	——— 71 camels with Khajawas	71	71	
1 Mountain Battery (Native)	3	174		1	35	24	13	139	...	3	16	.	38	.	.	...	15	Add Mates	80	..	
1st Infantry Brigade																		Sirdars	20	..	
Brigade Staff	2	.	..	.	.	15	6	..	..		...	2	...	2	...	...	1	7,091 Followers at 3 per cent require 70 doolies of 6 bearers	420	..	
1 Regiment British Infantry	30	885	2		79	55	7	...	..	16	..	96	1	128	22	24	35				
1 Company Sappers and Miners	2	122	...	1	19	7	2	..	.		.	8½	2	11		3	5	——— 70 camels with Khajawas	70	70	
2 Regiments Native Infantry	16	1,824	...	2	110	70	16	.	.			112	2	148½	44	50	63				
2nd Infantry Brigade.																					
Brigade Staff	2	...	...	...	...	15	6			.		2	...	2	..	.	1				
1 Regiment British Infantry	30	885	2		79	55	7	.	.	16		96	1	128	22	24	35				
1 Company Sappers and Miners	2	122	...	1	19	7	2		.			8½	2	11	...	3	5				
2 Regiments Native Infantry	16	1,824	..	2	110	70	16				..	112	2	148½	44	50	63				
3rd Infantry Brigade.																					
Brigade Staff	2	..	.	..	...	15	6		...	.		2		2	.	...	1				
1 Regiment British Infantry	30	885	2	.	79	55	7			16	...	96	1	128	22	24	35				
2 Regiments Native Infantry	16	1,824	.	2	110	70	16	...	.	..	..	112	2	11	44	50	63				
1 Company Sappers and Miners	2	122	..	1	19	7	2	..	..		.	8½	2	148½	..	3	5				
Total	238	10,815	13	16	2,333	1,034	2,201	317	9	498	55	904½	126	1,200½	198	267	700	Total Sick Carriage ..	2,630	180	

	Mules	Camels.
Camp Equipage	55	904½
Baggage	126	1,200½
Ammunition	198	267
Supplies		700
Sick		160
Total	379	3,252

Note.—Carriage for the 2nd or Divisional reserve of Artillery Ammunition is not provided for, the amount of the latter being determined according to circumstances.

Scale of Personal Baggage.	Maunds.
General Officers and Officers of relative rank	2
Staff of Regimental Officers	
Colonels and Lieutenant-Colonels and Officers of relative rank	1½
Majors ditto ditto	1
Captains and Subalterns ditto	1
Staff Sergeants, Medical Subordinates and Non-Commissioned Officers, Sappers and Miners	¾
Artillery and Infantry, Non-Commissioned Officers and men	¾
British Cavalry, if valises are carried on camels	0
Native Infantry, Sappers and Miners and Mountain Batteries, Non-Commissioned Officers and men and drivers	¾
Native Officers of Mountain Batteries and Hospital Assistants	¾
Messes.	
Divisional or Brigade Mess	15
Officer's messes, including tents, stores, cooking utensils, &c	
Artillery, Batteries, Horse Field, Heavy and Garrison	6½
Artillery, Batteries, Mountain, British	5½
Ditto ditto Native	3½
Regiment, British Cavalry or Infantry	33
Ditto Native Cavalry or Infantry	8½
Company, Sappers and Miners	2½
Offices.	
Divisional or Brigade Staff, excluding Commissariat Department	1
Regiment, British Cavalry	1
Ditto Infantry	1

Note.—Camelmen and Muleteers are included in followers only so far as sick carriage is concerned.
* For scale of personal baggage—See column of Remarks.

APPENDIX XLVI.

Correspondence regarding the cost and necessity for the retention of elephants as Army Transport.

Nos. 286-88, dated Simla, 21st August 1879.

From—Captain E. H. H. COLLEN, Secretary to the Army Organization Commission

To—The Commissaries General, Bengal, Madras, and Bombay.

I am directed by the Army Organization Commission to beg that you will be so good as to favor it with a report on the necessity or otherwise for the retention of elephants as army transport at the stations of the presidency where they are now used.

The report should show—

(*a*) The cost of keep monthly.
(*b*) All other charges.
(*c*) Present first cost of each elephant.
(*d*) Cost (average) of elephants, 1849, 1859, 1869, 1879.

2. Your report should of course show what is the present actual reason for keeping elephants at the various stations, not merely that an order exists to that effect, and how they would be replaced in reference to the actual transport requirements of the troops in the particular locality.

No. 6678, dated Simla, 11th October 1879.

From—Colonel J. I. WILLES, Commissary General, Bengal,

To—The Secretary to the Army Organization Commission.

In reply to your letter No. 286, dated 21st August 1879, I beg to furnish the following answers to the queries put, and to report generally on the necessity or otherwise of the retention of the elephants at stations where now maintained in the Bengal Presidency:—

Queries.	*Answers.*		
	Cost of feed.	Cost of keep.	Total cost of feed and keep
	Rs. A. P.	Rs. A. P.	Rs. A. P.
(*a*)—The cost of keep monthly.	1878-79 ... 45 15 7	10 10 3	56 9 10
(*b*)—All other charges.	Are for gear. The actual cost per annum being about		49 15 0
	For chafe for hardening feet when about to travel over hard and stony ground		0 12 0
			50 11 0
	The cost of burying elephants dying in cantonments is another item of expenditure: the charge does not ordinarily exceed Rs. 4-8 for each elephant.		
			Rs. A. P.
(*c*)—Present cost of each elephant.	1878-79		...1,395 0 0
(*d*)—Cost (average) of elephants for 1849, 1859, 1869 and 1879.	The Examiner of Commissariat Accounts, who was referred to on this subject, writes as follows:—		
	1848-49, no records; this office was established in 1853.		
	1858-59 records destroyed.		
	1868-69, no purchases were made in this year; the average cost in 1867-68 amounted to Rs. 1,007-8.		
	1878-79, Rs. 1,395.		

2. At stations below Benares elephants only are maintained, and at stations above Benares elephants are kept up only for the camp equipage of European troops. Copies of my circulars Nos. 115 of 6th September 1878, and 39 of 24th April 1879, showing the numbers of elephants required for station and moveable column carriage are attached. Four elephants are also specially set apart for the howdahs of His Excellency the Viceroy and Commander-in-Chief, and elephants when required for the camps of Governor General, Commander-in-Chief, and Lieutenant-Governors, are withdrawn from moveable columns, and their places supplied with camels; 18 elephants with 2 spare are also kept up for the heavy batteries at Peshawur and Morar.

3. So far back as in 1873, I advocated bullock or yaboo carriage with carts for camel carriage, as such could easily be carried with troops on lines of rail, and be always available for use on arrival at destination where rail ceases. Carriage of such description supplemented

Commissary General's No. 863, dated 12th February 1873, to Government, Military Department.

by pack ponies and bullocks, I am of opinion, could only take the place of a portion of the elephants in the Punjab and North-West. For regiments in the Eastern Frontier district, Government considered that the substitution of mules for elephants altogether inexpedient, not only on the score of expense, but also the unsuitability of such carriage. I am of opinion that, owing to the flooded state of the country the greater part of the year, elephant carriage is the best adapted for the plains of Assam and in Lower Bengal.

Military Department, No. 750, dated 20th September 1873.

4. Taking into consideration now that the railways have extended so far over India, and that troops can go almost anywhere by rail, I consider that elephants are unnecessary for baggage purposes out of Bengal. They are chiefly used for conveyance of the large tents used by British troops; the time has come when for such purposes a smaller kind of tent can be used; and for standing camps, if deemed necessary, they can be sent by railway, or at any rate, for ordinary marching, camels and carts can be used. Elephants are absolutely unfitted for baggage purposes on the frontier; for military, it will no doubt be desirable to keep them, and at Peshawur they thrive well and suitable fodder is obtainable. I consider the establishment might well be reduced one-half at once. The moving of elephants by rail, I do not believe, would ever be safe, and in my opinion the late experiments at Howrah were unsatisfactory.

No. 5330, dated Madras, 23rd September 1879.

From—Colonel R. A. MOORE, Acting Commissary General, Madras,

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

In reply to your letter No. 287, dated 21st August 1879, I have the honor to inform you that this matter has been reported on in replying to the questions on transport.*

But I may here mention that, as stated in my reply to query 7, I see no advantage in keeping up elephants, except in Burmah and Cannanore. At other stations the equivalent in camels or carts with bullocks would answer as well.

Our European soldiers' tents are too large to be carried conveniently on pack bullocks or mules.

(*a*) The cost of keep monthly of one elephant is Rs. 75-3-5.
(*b*) Other charges, attendants and gear, Rs. 17-3-9.
(*c*) Present first cost Rs. 1,226-6-10, excluding freight and charges to Coconada.
(*d*) Average cost of elephants—

	Rs.	A.	P.
for 1849	760	0	0
„ 1859	598	0	0
„ 1869	786	10	7
„ 1879	1,226	6	10

No. 3979-26, Bombay, dated 6th September 1879.

From—Lieut.-Colonel M. W. WILLOUGHBY, Acting Commissary General, Bombay,

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

In reply to your letter No. 288 of the 21st, I have the honor to state, for the information of the Army Organization Commission, that the established complement of elephants for moveable columns in this presidency, the number of elephants present on 1st August last, the number deficient to complement, and the stations at which the elephants are distributed, is shown in the accompanying tabular statement.

Statement shewing the established complement of Moveable Column Elephants in the Bombay Presidency, the number present on 1st August 1879, the number deficient to complement, and the stations where distributed.

STATIONS.	Complement.	Number present on 1st August 1879.	Deficient.	REMARKS.
Poona	17	12	5	
Ahmednagar	2	2	...	
Malegaon...	2	1	1	
Satara	4	3*	1	*One out of three is at Poona.
Ahmedabad	5	2	3	
Deesa	11	10†	1	†One doing duty at Ahmedabad.
Rajkot	2	1	1	
Mhow	19	18	1	
Neemuch...	8	5	3	
Belgaum	6	5	1	
Kolapur	2	2‡	...	‡At Belgaum.
TOTAL ...	78	61	17	

* See Appendix IV, Section J.

2. The complement, 78 elephants, was fixed by Government, Bombay, in June 1871 (the previous complement being 86), and the necessity for the employment of these animals as a part of the field column carriage had been recognised for many years previously, the points specially urged being—

(1) That the mortality amongst elephants was relatively much less than the mortality amongst camels.

(2) That camels in the greater part of the Bombay Presidency are useless in the rains, and that elephants, mules and ponies had been found the most serviceable and enduring of all the Government transport.

(3) That elephants are useful in a variety of ways on a march, especially in heavy country and for assisting artillery out of difficulties.

(4) For quick work elephants (and mules) are essential, and no animal can be compared with them for general usefulness in the field, and these reasons for the retention of elephants as a part of the field column carriage are as cogent now as they were when advanced by His Excellency the Commander-in-Chief of the Bombay Army twenty years ago, and in addition to them it may be stated that elephants are used for the station transport of heavy machinery, boilers, timber, &c., which could not well be otherwise moved.

3. The establishment for the Bombay Presidency is small, and it would appear very unadvisable to reduce it, the elephants proving very useful on field service as exemplified by the operations in Abyssinia, when 44 elephants were sent from Bombay and 38 returned, having gone through the vicissitude of the campaign and the voyage to and from Zoolla, the latter made during the south-west monsoon.

4. If it should be decided to dispense with the elephants, they could be replaced at—

Ahmedabad	Malegaon
Deesa	Neemuch
Mhow	

By hired camels, three to an elephant, at an average monthly cost of Rs. 37-12-10 against Rs. 83-15-5, the average cost of an elephant throughout the presidency.

Poona	Rajkot
Ahmednagar	Belgaum
Satara	

Public camels would have to be substituted at an average monthly cost of Rs. 48-14-9, but this does not include cost of replacing casualties. Camels do not thrive at the Deccan stations, and it has not been found practicable hitherto to introduce there the contract system for supply of camel. At stations where there are excellent made roads connecting therewith other important positions such as—

Poona	Belgaum
Mhow	Satara
Ahmednagar	

I would advocate wagons drawn by four mules being employed in lieu of elephants, should it be decided to dispense with the latter.

The probable cost of a wagon and four mules would be about Rs. 52-15-4 as against Rs. 83-15-5, cost of an elephant.

5. These wagons would move over *good* roads at any time, but over the ordinary country roads only in the dry season.

6. As regards *a*, *b*, *c*, *d*, I beg to state—

(*a*) That the average monthly cost of feed and keep of an elephant in the Bombay Presidency is Rs. 83-15-5.

(*b*) Monthly charges for wear and tear of equipments and mussalas, Rs. 4.

(*c*) The present average first cost of each elephant, as taken from the books, is Rs. 759-0-11.

(*d*) The average purchase cost of elephants and cost of feed and keep of ditto in the years 1858-59, 1868-69, and 1878-79 is given below.—

	Average cost of purchase	Average annual cost of feed and keep
	Rs. A. P.	Rs. A. P.
1858-59	... 704 5 6	1,059 7 1
1868-69	... 609 13 2	1,111 8 9
1878-79	... 928 2 0	1,007 9 9

7. The figures for the year 1849 cannot be given, as the accounts for that year have been lodged in the general record room at the presidency, and cannot readily be got at.

8. I may mention that there is no means in this presidency of replacing casualties amongst the elephants as they occur, but the Madras Presidency has to be resorted to, and the elephants required for Bombay are usually brought over from Burmah with those for Madras Presidency, and at the present time the numbers deficient to complement are under orders to be supplied through the Government of Madras.

APPENDIX XLVII.

Correspondence regarding the casualties among the regimental cattle of the Punjab Frontier Force during the Kabul Campaign.

No. 45K.C. dated Simla, 3rd June 1879.

Memo. from—Colonel S. BLACK, Secretary to Government of Punjab, Military Department.

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

Has the honor to forward, for information, a statement showing the casualties since the commencement of field operations among the cattle of the—

Guide Corps (Q. O.)
1st Sikh Infantry.
2nd ditto.
1st Punjab Infantry.
2nd Punjab Infantry.
5th ditto.
5th Goorkhas.

No. 3054K., dated Simla, 21st June 1879.

From—Colonel H. K. BURNE, Secretary to the Government of India, Military Department.,

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

The statement shewing the casualties which have occurred among the cattle belonging to certain regiments since the commencement of the campaign, referred to in your memorandum No. 45K.C., dated 3rd June 1879, not having been received, I am directed to request that under the orders of His Honor the Lieutenant-Governor, the Government of India may be furnished with a copy as early as possible.

No. 414C., dated Simla, 21st August 1879.

From—Colonel S. BLACK, Secretary to Government, Punjab, Military Department,

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

In reply to your letter No. 3054K., dated 21st June last, I am directed to forward for the information of the Government of India copy of a statement of casualties among regimental camels of the Punjab Frontier Force during the Affghan war.

Casualties among Regimental Cattle since commencement of Field Operations.

Regiments.	Mules.				Camels.				Remarks.
	Number attached.	Died.	Sold.	Total.	Number attached.	Died.	Sold.	Total.	
Corps of Guides ...	101	4	..	4	...	..	...	...	3 died from farcy.
1st Sikh Infantry ...	41	..	...	...	60	6	1	7	Died from cold and wet.
2nd Sikh Infantry ...	...	...	...	...	2	10	1	11	From severe weather.
1st Punjab Infantry ...	40	1	...	1	55	7	...	7	
2nd Punjab Infantry ...	...	1	...	1	74	29	...	29	From over-work, severity of weather, and scarcity of forage.
5th Punjab Infantry ...	48	..	...	...	85	38	...	38	From old age.
5th Goorkhas ...	100	2	...	2	...	...	...	...	From old age and exposure to rain.
Total deaths ...	...	8	...	...	...	90	...	...	

No. 157K.C., dated Simla, 1st July 1879.

From—Colonel S. BLACK, Secretary to Government, Punjab, Military Department,

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

In continuation of my No. 45K.C., dated the 3rd June, forwarding a return of casualties that occurred during the recent field operations among the cattle of certain frontier regiments, I am desired to submit, for the consideration of the Government of India, the question whether, now that the Affghan Campaign is over, and the Commissariat Department will probably have a large number of baggage animals on their hands, the whole of the Native Regiments in the Punjab should not be equipped with regimental carriage in the same way as the regiments of the Punjab Frontier Force.

2. From the return above alluded to it will have been noticed that no excessive number of the regimental baggage animals was lost while the regiments were on service, owing probably to the care which the officers and men paid to their camels and mules; while on the other hand it is believed that a very large number of the baggage animals supplied by the transport officers for regimental carriage

perished during the campaign, and it appears obvious that animals which are changed from day to day and in which a regiment has no interest are much more likely to suffer than animals which belong to a regiment as part of its establishment.

3. It is unnecessary to point out that regimental baggage animals are not delayed on arrival at camp by having to be sent to the transport officer, counted and examined, before they can go out to graze, and it is not difficult to understand that a commanding officer can ensure his baggage animals being fed and sheltered much more certainly than any one else. The drivers are regimental servants, and the whole corps take an interest in the well being of the animals upon which the efficiency of the regiment in moving so much depends.

The Lieutenant-Governor has been much struck on several occasions with the care and rapidity with which the Punjab Frontier Force regiments have moved when ordered to march, and this has convinced him that for ensuring mobility, the system of keeping up regimental carriage has very great advantages.

5. Another advantage of the system is that the quantity of baggage can be very strictly regulated; in fact, the regiment having to depend upon its own carriage, which is strictly limited to the sanctioned establishment, the whole organization for the march is made to meet the circumstances with which the regiment is familiar.

6. As the usefulness of a regiment depends upon its mobility, His Honor thinks it is worth while considering at the present time whether, as the Commissariat Department will probably have a large number of animals on their hands, and it is not likely that these will be sold to advantage, this opportunity should not be taken to supply the native regiments serving in the Punjab with an establishment of camels and mules.

7. The number and cost of the carriage establishment maintained in the regiments of the Punjab Frontier Force will be gathered from the return annexed. In other parts of India it may not be advisable to incur this expense, but in the Punjab where there are at present few railways, it is, in His Honor's opinion, worth while to incur the additional expense for the purpose of making the regiments more mobile.

8. It must be remembered, I am to observe, that the Punjab will not for years to come recover from the drain of carriage which has been made upon it. Baggage animals will not in future be obtainable as readily as they were last September; and it seems desirable to lighten, as much as possible, the labor of the Commissariat Department, by making the regiments which are most likely to be called out for frontier service, self-dependent as regards carriage.

9. The animals may be transferred from one regiment to another, so that there need be no difficulty when reliefs are made.

Carriage Establishment of Regiments of the Punjab Frontier Force.

Details.	No.	Cost.	Remarks.
9 Regiments each having—			
Mules	40	Rs.	
Camels	55		Rs.
Muleteers	14	88	1 Jemadar ... ... 10 13 Muleteers, at Rs. 6 each ... 78
Camel Drivers	12	63	1 Jemadar ... ... 8 11 Surmans, at Rs. 5 each ... 55
Total ...	...	151	
2 Regiments in Hazara each having—			
Mules	100		Rs.
Drivers	34	208	1 Jemadar ... ... 10 33 Muleteers, at Rs. 6 each ... 198
Guides Infantry having—			
Mules	84		Rs.
Drivers	29	7	1 Jemadar ... ... 10 28 Muleteers, at Rs. 6 each ... 168

N. B.—The strength of the regiments is taken at 640 sepoys each. Camels are not allowed to the regiments in Hazara and to the Guides at Murdan. *Mule* carriage being more suitable.

Regiments at present are temporarily increased to 800 sepoys and a proportionate increase has been made in the baggage establishment.

APPENDIX XLVIII.

Table showing the strength of moveable columns to be maintained, with Government transport that should be kept up for each.

	Strength of Column.						Weight in maunds for which carriage must be kept, and class of carriage.	Number of			
	Artillery Battery.	British Cavalry Regiment	British Infantry Regiment	Native Cavalry Regiment	Native Infantry Regiment	Sappers and Miners Companies.		Ambulances.	Dooly-bearers.	Camel kazawars.	Mule cacolets.
Bengal Army Corps—											
Barrackpore	⅔	...	⅛	⅛	...	.	300 maunds; elephants (20) and carts ...	1	12	...	...
Dorunda ..	...	...	...	.	¼		120 ditto ; ditto (4) ditto ...	1	12	...	...
Nowgong ...	¼	...	¼	¼	¼	...	1,030 ditto ; ditto (5), camels and carts ..	3	60	4	4
Gwalior	⅓	.	⅓	⅓	1	...	2,060 maunds; elephants (10), ditto ..	6	120	8	8
Lucknow	⅓	...	⅓	⅓	1	...	No separate moveable column carriage will be allotted to these places, as part of the reserve carriage is to be kept here.				
Allahabad	⅓	...	⅓	⅓	½	...					
Bareilly	⅓	...	¼	¼	½	...					
Punjab Army Corps—											
Umballa . ..	⅓	...	¼	¼	½	...	Is a reserve carriage centre.				
Meean Meer ...	⅓	.	⅓	⅓	½	...	1,030 maunds; camels and carts	3	60	4	4
Rawalpindi	⅓	...	½	½	1	1	Is a reserve carriage centre.				
Madras Army Corps—											
Madras	½	...	¼	.	½	..	960 maunds; elephants (5), carts, other, and pack mules.	3	60	...	4
Bangalore	½	..	¼	¼	½	1	Is a reserve carriage centre.				
Secunderabad	1	¼	¼	½	1	1	Ditto ditto.				
Belgaum	⅓	. .	¼	...	½	..	1,000 maunds; elephants (5) and carts ...	3	60	...	4
Waltair	...	.	...	...	½	...	240 ditto , ditto (6) ditto ...	1	12	...	2
Berhampore	...	...	...	...	¼	...	120 ditto ; ditto (3) ditto ...	1	12	..	..
Cuttack	...		...	...	¼	..	120 ditto ; ditto	1	12	...	..
Rangoon . .	1	. .	¼	...	½	1	1,400 ditto ; ditto (10), carts and pack mules.	2	120	...	8
Bombay Army Corps—											
Poona ...	⅔	...	⅓	⅓	1	1	Is a reserve carriage centre.				
Mhow	⅔	...	⅓	⅓	1	...	Ditto ditto				
Nusserabad ...	⅔	...	⅓	⅓	¼	..	1,030 maunds; elephants (5) and camels ...	3	60	8	...
Saugor	⅔	...	⅓	⅓	⅓	...	1,030 ditto ; ditto (5) and carts ...	3	60	4	4
Kamptee	⅔		⅓	⅓	⅓	..	1,030 ditto ; ditto (5) ditto ...	3	60	4	4
Ahmedabad	⅔	.	...	⅓	⅓	...	1,000 ditto ; ditto (5), camels and carts ...	3	60	4	...
Total ...	9⅔	¼	6⅛	5⅛	13¾	5	12,470	88		37	780	36	42

Twenty-four moveable columns mobilizing in the lightest marching order 9⅔ batteries of artillery, ¼ of a regiment of British cavalry, 6⅛ regiments of British infantry, 5⅛ regiments of native cavalry, 13¾ regiments of native infantry, and 5 companies of sappers. These columns involve the maintenance, at places other than reserve centres, of carriage equal to 12,470 maunds, including 88 elephants, besides 37 ambulances, 780 dooly-bearers, 36 camels with kazawars, and 42 mules with cacolets. The total cost of this moveable column carriage in peace time, exclusive of the columns moblilized from reserve centres of carriage, would be approximately:—

	Per annum. Rs.
88 elephants, carrying 12 maunds a-piece, at Rs. 1,200 ...	1,05,600
12,470 maunds, less by 1,056 maunds carried on elephants, or net 11,414 maunds, at Rs. 40* per maund per annum all round	4,56,560
37 ambulances (two-wheeled and two mules each), at Rs. 400 a year	14,800
780 dooly-bearers (with cost of uniform and a proportion of gang-leaders), at Rs. 90 a year	70,200
36 camels with kazawars, at Rs. 180 a year	6,480
42 mules with cacolets, at Rs. 240 a year	10,080
Grand Total ...	6,63,720

* Rupees 40 a maund is taken as the cost of carriage (exclusive of elephant carriage, which comes to Rs. 100 a year), as being an outside mean of the cost of maintaining the different kinds of transport in peace time. Thus a camel carries 4 maunds and costs Rs. 100 a year; a pack mule carries 2 maunds and costs Rs. 160 a year; a single mule cart carries 5 maunds and costs Rs. 200 a year; a double mule carries 10 maunds and costs Rs. 350 a year. If ponies are substituted for mules, as has been successfully done with the Central India and the Poona Horse, the cost of cart carriage will be considerably less. A serviceable pony costs barely half as much to buy, and only half as much to keep, as a mule. Wherever carts are mentioned, the intention is that light carts drawn by mules or ponies should be kept. There is no advantage in keeping Government bullock carts when the country abounds with these vehicles.

APPENDIX XLIX.

Detail of the Regimental Government transport which would have to be kept up at Frontier Stations, other than for Native Cavalry.

Half carriage for the frontier regiments, consisting (besides native cavalry) of 8,900 Europeans and 17,400 Natives (at the rate of 2 maunds for every mobilised European soldier, and 1 maund for every mobilised native soldier, inclusive of reserve ammunition and 4 days' food) would be equal to 16,600 maunds. The description of carriage would vary greatly, and so also would the cost per maund vary greatly on the different frontiers. For instance, on the Assam and Burma frontiers, camels and carts would be of no use whatever. In such places, elephants (which are happily cheaper to keep in those countries), mules and coolie corps would have to be employed. On the Bombay and Punjab frontiers, two-thirds of the carriage would consist of camels and mule or pony carts, which are very much cheaper than pack mule or coolie carriage. On the northern frontier a few elephants only would be required for siege-train work, for occasional duty with field guns, for crossing rivers or morasses, and such like requirements.

On the North-Western frontier, the Commission propose to keep elephants on the following scale:—

Jacobabad	10
Dera Ismail Khan	10
Kuram and the Peiwar	25
Peshawar and the Khyber	25
Total ...	70
	Rs.
at Rs. 1,200 each	84,000
These 70 elephants will carry 840 maunds, leaving 15,760 maunds to be provided for, of which 4,900 maunds belong to the Burma* or Assam frontier, the remainder (10,860 maunds) belonging to the Bombay and Punjab frontiers. Elephant, mule, and coolie carriage in Assam and Burma will cost not less than Rs. 65 a maund per annum, or for 4,900 maunds	3,18,500
Rs. 40† a maund will suffice to cover the cost of carriage on the Bombay and Punjab frontiers, which on 10,860 maunds comes to ...	4,34,400

The sick carriage for the frontier troops will be—

Doolies at 3 per cent. of strength for European, and at 1½ per cent. of strength for natives, 264 doolies with 1,584 bearers at Rs. 90 a year each (with cost of uniform and proportion of gang-leaders) ...	1,42,560
Ambulances for 3 per cent. of strength of European and 1 per cent. of natives, 56 ambulances at Rs. 400 a year	22,400
Camel and mule panniers for 1 per cent. of Europeans and 2½ per cent. of natives, 132 animals at an average of Rs. 200 a year ...	26,400
Add for difference of cost between ambulances and cacolets or dandies on the Assam and Burma borders where ambulances cannot be used ...	8,000
Add present cost of regimental carriage of Punjab Frontier Force regiments	85,000
Also cost of additional animals for ammunition and hospitals in native cavalry regiments	67,000
and we get a total of ... ... which represents approximately the cost of keeping half the forces on all the threatened frontiers of British India thoroughly mobilized.	11,04,260

* All the troops in Burma and Assam have been reckoned as frontier troops, except the garrison batteries, for they are all either guarding or in reserve for the frontier.

† Rupees 40 a maund is taken as the cost of carriage (exclusive of elephant carriage, which comes to Rs. 100 a year), as being an outside mean of the cost of maintaining the different kinds of transport in peace time. Thus a camel carries 4 maunds and costs Rs. 100 a year; a pack mule carries 2 maunds and costs Rs. 160 a year; a single mule cart carries 5 maunds and costs Rs. 200 a year; a double mule cart carries 10 maunds and costs Rs. 350 a year. If ponies are substituted for mules, as has been successfully done with the Central India and the Poona Horse, the cost of cart carriage will be considerably less. A serviceable pony costs barely half as much to buy, and only half as much to keep, as a mule. Wherever carts are mentioned, the intention is that light carts drawn by mules or ponies should be kept. There is no advantage in keeping Government bullock carts when the country abounds with these vehicles.

APPENDIX L.

Statement showing the reserve transport to be kept at ten centres or depots for the four Army Corps.

	Number of				Maunds for which carriage is to be kept, with kind of carriage.
	Elephants	Ambulances.	Dooly-bearers	Pannier camels and mules.	
Bengal Army Corps—					
Lucknow	10	10	360	10	2,000 maunds;—carts and pack mules or ponies.
Allahabad	5	10	180	5	1,000 ditto ditto.
Bareilly	5	10	180	10	1,500 ditto ditto.
Punjab Army Corps—					
Umballa	10	10	360	10	2,500 maunds;—carts, camels, and pack mules or ponies.
Rawalpindi	10	50	1,200	50	4,000 ditto ditto.
Madras Army Corps—					
Secunderabad	10	20	360	10	2,000 maunds;—carts and pack mules or ponies.
Bangalore	5	10	180	5	1,000 ditto ditto.
Bombay Army Corps—					
Poona	10	20	360	10	2,000 ditto ditto.
Mhow	5	10	180	10	2,000 maunds;—carts, camels, and pack mules or ponies.
Shikarpur (or Quetta) ...	10	30	600	30	2,000 ditto ditto.
Total ...	80 or 960 maunds, being carriage for 960 natives.	180 or 720 sick.	3,960 or 660 sick.	150 or 300 sick.	20,000 or carriage for 6,000 Europeans and 11,000 Natives, including Native Cavalry, which require but little Government transport.

The total cost of this reserve carriage will be—

	Per annum. Rs.
80 elephants, at Rs 1,200 a year each	96,000
180 ambulances, at Rs. 400	72,000
3,960 dooly-bearers, at Rs. 90	3,56,400
150 pannier camels and mules, at Rs. 220 each on an average	33,000
20,000 maunds, at Rs. 40* a maund	8,00,000
Total	13,57,400

* Rupees 40 a maund is taken as the cost of carriage (exclusive of elephant carriage, which comes to Rs. 100 a year), as being an outside mean of the cost of maintaining the different kinds of transport in peace time Thus a camel carries 4 maunds and costs Rs. 100 a year; a pack mule carries 2 maunds and costs Rs. 160 a year; a single mule cart carries 5 maunds and costs Rs. 200 a year; a double mule cart carries 10 maunds and costs Rs. 360 a year. If ponies are substituted for mules, as has been successfully done with the Central India and the Poona Horse, the cost of cart carriage will be considerably less A serviceable pony costs barely half as much to buy, and only half as much to keep, as a mule. Wherever carts are mentioned the intention is that light carts drawn by mules or ponies should be kept. There is no advantage in keeping Government bullock-carts when the country abounds with these vehicles.

APPENDIX LI.

Correspondence regarding the employment of Government transport by the Post Office.

No. 563, dated Simla, 13th October 1879.

From—Captain E. H. H. Collen, Secretary to the Army Organization Commission, Simla,

To—The Director General of Post Office.

The experience of the recent campaign has shewn that the heavy bullock carts of India are not suited for carrying the *matériel* of an army in the field anywhere save on level and made roads. At the same time, it has become equally clear that camel and pack animals must be supplemented by wheeled carriage of some kind, if a considerable force has to be moved with its supplies and *matériel*.

2. The question of the best means of providing such carriage has come before the Army Commission. It is probable that the best kind of wheeled carriage will be found to be the two-wheeled Maltese cart, or one of a similar construction, drawn by a single mule, a galloway, a large bullock, or two smaller animals of the above classes. The weight of the cart is 2 cwt. 2 qrs., and 24 lbs., and its ordinary load is 10 cwt. The Government cannot afford to keep up a sufficient staff of these carts and animals unless they can in time of peace be employed usefully in the Civil Department.

3. The President of the Commission has directed me to ask if you would kindly favor him with information as to how far the Post Office Department could assist to this end, and your views on the following points:—

(1) The number of bullock carts and horsed vehicles (other than two-wheeled mail carts), also the number of horses, bullocks, and ponies kept up by the Postal Department.

(2) The feasibility of substituting the Maltese or a similar class of cart for a proportion of Government bullock vans, and working them with animals as above mentioned.
(3) The probable financial result to your department of this gradual substitution.
(4) The maximum number you could thus maintain, after a sufficient period of time.
(5) The probable loss to your department by the substitution of locally hired transport on the removal of the whole or a large number of these carts and animals on the breaking out of war.
(6) Any suggestions you might kindly feel inclined to put forward bearing on this.

4. It is probably unnecessary to bring to your notice that while the postal service of the country would temporarily suffer from an arrangement of the above description, the gain and increase of economy to Government of having ready such a reserve of transport to draw on, if needful, would be inestimable.

No. 6632, dated Simla, 27th October 1879.

From—A. M. MONTEATH, ESQ., Director General of the Post Office of India,

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

In reply to your letter No. 563, dated 13th October 1879, I have the honor to give the following information on the points specified by you, *viz.*,—

(1.) The number of bullock-carts, bullock-wagons, four-wheeled horsed conveyances, bullocks, and horses or ponies kept by the Post Office on lines of transit under departmental management are given in the annexed Statement, marked A.

It will be observed that the bulk of the conveyances and cattle are working on the main lines from Jhelum to Pindi and Pindi to Peshawur. I mention this because these will probably be shortly superseded by railways.

Annexed will also be found a Statement marked B shewing lines on which mails or goods are conveyed for the Post Office under contract. On these lines the contractors generally have arrangements for the conveyance of passengers or goods independently of the postal contracts. This office has no information as to the number of vehicles and cattle maintained by these contractors: but it is believed to be very insignificant and in most cases of a very inferior description.

(2.) I shall be glad to give an opinion about the feasibility of substituting the Maltese or some similar class of cart for a proportion of Government bullock-vans when I have had an opportunity of seeing the cart and possibly of trying it.

(3.) The financial result of a substitution of a new pattern of cart would be peculiarly unfavorable at the present time when the progress of railways is year by year throwing surplus stock into our hands.

(4.) The maximum number of the new pattern cart to be eventually maintained may be taken as equal to the number of 2 wheeled bullock-carts shewn in column 1 of Statement A, *viz.*, 1022 less the number placed opposite any of the lines which may be superseded by the railway. For instance, supposing the railway to be opened from Jhelum to Peshawur, the maximum number would be 1022 — 575 = 447: and if the Railway were extended also to Thull, the number would be 447 — 131 = 316.

(5.) I do not think that there would be any loss to the Post Office from the substitution of locally hired bullock carriage for the new carts and cattle. There would be delay in transit and consequent inconvenience but no material loss.

2. I would remark generally that the horsed conveyances as well as the horses and ponies maintained by the Post Office may, I think, be put out of all consideration in this matter, for they are kept solely for mails and passengers and could not without great inconvenience be removed. But as regards the bullock-carts, there would probably be no difficulty in carrying out the suggestion so far as the small and rapidly decreasing establishment maintained by the Post Office is concerned.

A.

Statement shewing the number of bullock-carts, Bullock-wagons, four-wheeled horse conveyances, bullocks and horses or ponies kept by the Post Office.

	Bullock-carts and Shigrams, 2 wheels.	Bullock-wagons, 4 wheels.	Horsed conveyances, 4 wheels.	Bullocks.	Horses or ponies.
	Number.	Number.	Number.	Number.	Number.
Umballa and Simla	224	7	75	216	532
Ludhiana, Ferozepore, and Lahore	50	107	...	64	...
Umritsar and Pathankote	...	...	33	...	99
Wazirabad and Sialkot	12	...	15	18	52
Pindee and Murree	30	...	...	168	103
Pindee and Thull	131	...	...	984	460
Pindee and Peshawur	338	...	78	546	408
Pindee and Jhelum	237	...	56	654	338
Bareilly and Raneebaugh	...	...	...	...	66
Sukkur and Jacobabad	...	...	...	...	102
	1022	*114	257	2,650	2,160

B.

Statement shewing lines on which mails or goods are conveyed for the Post Office under contract.

Names of Circles.	Names of Lines.	Mode of conveyances
Bengal	Jessore to Chagdah	Carriage Dâk.
Bombay	Poona and Belgaum	Tonga.
„	Surul and Mohableshwar	„
„	Belgaum and Hubli *viâ* Dharwar	„
„	Dhulia and Chalisgaon...	„
„	Khedgaon and Serur	„
„	Barsi Railway Station to Pandharpur and Barsi... ...	„
„	Wadwan and Rajkot	„
„	Hubli and Gudduk	„
„	Akola to Hingoli	„
„	Bhuj to Chotila	Horse Dâk.
„	Sidhpur to Deesa	Camels.
N. W. Provinces ...	Shikohabad to Eta	Mail cart.
„ ...	Shikohabad to Fategarh *viâ* Mainpuri	„
„ ...	Dholpur to Gwalior	„
„ ...	Bulandshahr to Chola	„
„ ...	Shaharunpore to Landour	„
„ ...	Fatehpore to Roorkee	„
Punjab	Dera Ismail Khan and Edwardesabad	Bamboo cart.
„	Lahore to Ludhiana *viâ* Ferozepore	Horse Dâk.
„	Rohtak and Bhewani	Horse carriage.
„	Rohtak and Hissar	„
„	Rohtak and Delhi	„
„	Hissar and Sirsa	Ekka Dâk.
„	Karnal to Delhi	Mail cart.
„	Karnal and Umballa	„
Central Provinces ...	Nandgaon to Jalna	Tonga.
„ ...	Hoshangabad to Etarsi...	„
„ ...	Singanama to Piparia	Mail cart.
Oudh	Lucknow to Sitapur	Horse Dâk.
„	Lucknow to Rai Bareilly	„

APPENDIX LII.

Employment of Government transport by municipalities.

[*N. B.*—There was not sufficient time for replies to be received giving practical information.]

No. 574, dated Simla, 15th October 1879.

From—Captain E. H. H. Collen, Secretary, Army Organization Commission, Simla,

To—The Local Governments and Administrations.

I am directed to forward, for the consideration of copy of a letter addressed to the Director General of Post Offices, respecting the establishment of a train of Maltese carts,* in place of the present bullock-train, as far as possible.

2. I am now directed to enquire how far the Government of could arrange for establishing similar carts in municipalities or under private carrying companies, in the province under control. The question would be how far such carts could be substituted for the existing vehicles, and what annual subsidy per cart and mule (or horse) the Government would have to pay, in order to secure the right to call such carts to the colors on the occasion of any campaign or camp of exercise.

No. 563, dated Simla, 13th October 1879.

From—Captain E. H. H. Collen, Secretary to the Army Organization Commission, Simla,

To—The Director General of Post Office.

The experience of the recent campaign has shewn that the heavy bullock carts of India are not suited for carrying the *matériel* of an army in the field, anywhere save on level and made-roads. At the same time, it has become equally clear that camel and pack animals must be supplemented by wheeled carriage of some kind, if a considerable force has to be moved with its supplies and *matériel*.

2. The question of the best means of providing such carriage has come before the Army Commission. It is probable that the best kind of wheeled carriage will be found to be the two-wheeled Maltese cart, or one of a similar construction, drawn by a single mule, a galloway, a large bullock or two

* Sketches and description were subsequently sent.

smaller animals of the above classes. The weight of the cart is 2 cwt. 2 qrs. and 24 lbs., and its ordinary load is 10 cwt. The Government cannot afford to keep up a sufficient staff of these carts and animals unless they can in time of peace be employed usefully in the civil department.

3. The President of the Commission has directed me to ask if you would kindly favor him with information as to how far the Post Office Department could assist to this end, and your views on the following points:—

(1) The number of bullock carts and horsed vehicles (other than two-wheeled mail carts), also the number of horses, bullocks, and ponies, kept up by the Postal Department.

(2) The feasibility of substituting the Maltese or a similar class of cart for a proportion of Government bullock vans, and working them with animals as above mentioned.

(3) The probable financial result to your department of this gradual substitution.

(4) The maximum number you could thus maintain, after a sufficient period of time.

(5) The probable loss to your department by the substitution of locally-hired transport on the removal of the whole or a large number of these carts and animals on the breaking out of war.

(6) Any suggestions you might kindly feel inclined to put forward bearing on this.

4. It is probably unnecessary to bring to your notice that while the postal service of the country would temporarily suffer from an arrangement of the above description, the gain and increase of economy to Government of having ready such a reserve of transport to draw on, if needful, would be inestimable.

APPENDIX LIII.

Return shewing the transport, animal and wheeled, that could be collected in the various districts, in 24 hours and within a fortnight.

No. , dated Simla, the October 1879.

From—Captain E. H. H. COLLEN, Secretary, Army Organization Commission, Simla,

To—

I am desired to request that you will be good enough to favour the Army Organization Commission with a return shewing the pack animals and wheeled carriage which could be collected from your district for transport purposes at
under conditions noted on the accompanying form, which you will much oblige by filling in and returning to me at your earliest convenience, and also by sending me a short telegram of the numbers as soon as possible.

Return of pack animals and wheeled carriage available for transport purposes.

District

Time for collection.	Elephants.	Camels.	Horses.	Ponies.	Mules.	Donkeys.	4-Bullock Carts.	2-Bullock Carts.	Ekkas.	Remarks.
In 48 hours										
Within a fortnight ...										

(Signed)

*Return of Pack Animals and Wheeled Carriage available for Transport purposes.**

Presidency or Province.	District.	Time for collection.	Elephants.	Camels.	Horses.	Ponies.	Mules.	Donkeys.	4-Bullock Carts.	2-Bullock Carts.	Ekkas.	Remarks.
Bengal ...	Calcutta ...	In 48 hours ...	...	...	1,000	4,000	...	...	...	5,000	...	
		Within a fortnight ...	...	...	1,000	4,000	...	...	...	5,000	...	
	24-Pergunnahs	In 48 hours ...	...	...	...	20	...	20	...	100	...	At Dum-Dum.
			...	...	...	...	...	...	...	1,197	...	At Alipore.
		Within a fortnight	...	...	...	50	...	20	...	200	...	At Dum-Dum.
			...	...	...	...	...	...	...	3,448	...	At Alipore.
	Hazareebagh ...	In 48 hours ...	...	...	...	5	...	...	...	40—50*a*	...	*a*. These are the approximate numbers of carts which can be collected within two days from the station and its environs all the year round, except in the cultivating season, when it will be very difficult to collect even half the numbers entered here.
		Within a fortnight ...	...	...	...	5	...	...	...	250*b*	...	*b*. These include the number of carts which come from Gya and Patna laden with pulses, tobacco, and other articles for sale here.
	Mozufferpore ...	In 48 hours ...	20	5	25*c*	100*c*	None ...	100	None ...	500	100	*c* Horses and ponies are seldom used in this district as pack-animals. The figures given in the two columns represent the numbers of horses and ponies that could be obtained for draught purposes.
		Within a fortnight ...	100	20	100	400	None ...	1,000	None ...	2,500	300	
	Midnapore ...	In 48 hours ...	...	...	...	...	...	...	...	40	...	In 48 hours 500 pack-bullocks could be collected.
		Within a fortnight ...	...	...	...	...	...	...	...	200	...	Within a fortnight 2,000 ditto ditto.
	Durbungah ...	In 48 hours ...	...	...	...	...	...	...	...	...	...	
		Within a fortnight ...	...	...	...	150	...	...	...	500	...	
	Purneah ...	In 48 hours ...	6	...	...	100	...	25	...	100	...	All these can be supplied at Carragolah under compulsion.
		Within a fortnight ...	20	...	...	1,000	...	200	...	1,000	...	
	Cuttack ...	In 48 hours ...	...	...	...	...	...	...	...	500	...	No other carriages or pack-animals available.
		Within a fortnight ...	...	...	...	...	...	...	...	2,500	...	
	Dinagepore ...	In 48 hours ...	...	...	...	...	...	...	...	105	...	
		Within a fortnight ...	73	...	...	...	...	...	...	1,983	...	
	Faridpur ...	In 48 hours ...	...	...	...	...	...	...	...	10	...	
		Within a fortnight ...	...	...	...	25*d*	...	...	...	50	...	*d*. Country ponies.
	Berhampore ...	In 48 hours ...	...	...	...	...	...	...	...	200 (dry season) 100 (wet ,,)	...	
		Within a fortnight ...	...	...	...	...	...	...	...	500 (dry ,,) 300 (wet ,,)	...	
	Julpigoree ...	In 48 hours ...	...	...	...	15	...	...	...	15	...	
		Within a fortnight ...	...	...	...	30	...	...	...	50	...	
	Dacca ...	In 48 hours ...	12	...	...	...	...	...	...	30	...	
		Within a fortnight ...	25	...	...	...	...	...	...	100	...	
	Champarun ...	In 48 hours ...	21	5	16	149	...	125	...	257	10	
		Within a fortnight ...	53	8	38	440	...	175	...	1,162	50	
	Lohardugga ...	In 48 hours ...	1	...	...	...	...	...	...	...	5	Pack-bullocks and banghy coolies available in unlimited numbers.
		Within a fortnight ...	3	...	...	...	...	...	...	...	15	

* It will be obvious that time was not available to complete this return, and that its objects were not understood by many district officers.

Return of Pack Animals and Wheeled Carriage available for Transport purposes—continued.

Presidency or Province.	District.	Time for collection.	Elephants.	Camels.	Horses.	Ponies.	Mules.	Donkeys.	4-Bullock Carts.	2-Bullock Carts.	Ekkas.	Remarks.
Bengal—*contd.*	Mymensing	In 48 hours	10*a*	...	...	...	...	...	...	10*b*	...	*a*. Can be obtained for urgent Government business only. *b*. Can be hired during cold season.
		Within a fortnight	40*a*	...	...	..	...	...	...	50*b*	...	
	Bogra	In 48 hours	...	...	...	...	...	...	...	303	...	There are in the district 13 elephants and many ponies which are not let on hire. These could, however, be procured if necessary.
		Within a fortnight	...	...	...	...	...	...	...	222	...	
	Sarun	In 48 hours	34	6	51	148	...	407	...	764	92	
		Within a fortnight	96	19	155	587	...	732	...	1,582	208	
	Jessore	In 48 hours	...	...	...	...	...	...	...	52	...	
		Within a fortnight	...	...	...	550	...	...	...	2,837	...	
	Darjeeling	In 48 hours	...	...	...	200	5	5	...	80	...	These figures relate to transport available at Suddar Station Kursiong and Terai. Ponies and carriage are mostly available for transport within the district.
		Within a fortnight	...	...	...	460	10	10	...	280	...	
	Pubna	In 48 hours	...	...	...	25	...	...	...	150	...	Few if any available for hire out of the district.
		Within a fortnight	...	...	...	1,938	...	...	...	797	296	
	Patna	In 48 hours	...	...	...	...	...	...	...	500	600	
		Within a fortnight	...	...	...	...	...	...	...	2,000	200	
	Bankipore	In 48 hours	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*	...	...	600	
		Within a fortnight	...	...	...	...	...	...	...	...	200	
Assam	Shillóng	In 48 hours	...	...	...	5	...	...	...	6	...	
		Within a fortnight	...	...	...	10	...	...	...	12	...	
	Silchar	In 48 hours	...	...	...	...	...	...	...	...	...	
		Within a fortnight	...	...	...	...	...	...	...	...	...	
	Dibrugarh	In 48 hours	20	...	...	...	...	...	...	60	...	
		Within a fortnight	126*a*	...	...	...	...	...	...	200	...	*a* Includes 56 Government elephants.
N. W. P. & Oudh	Allahabad	In 48 hours	...	...	...	...	...	...	...	...	...	The figures in italics represent the numbers that could be collected with consent of owners.
				...	*30*	*20*	...	...	*25*	*5*	*15*	
		Within a fortnight	...	100	...	1,000	...	5,000	10,000		100	
				7	*50*	*145*	...	*87*	*137*	*90*	*53*	
	Cawnpore	In 48 hours	...	...	...	50	40	50	20	70		The Roman figures represent the numbers given per telegram, and the figures in italics the numbers given by letter.
						55			*15*	*65*		
		Within a fortnight	...	...	...	200	...	...	500	500	...	
						180	*75*	*150*	*565*	*416*		
	Agra	In 48 hours	8	35	...	128	230	373	18	64	68	
		Within a fortnight	...	318	...	223	337	1,255	133	568	229	
	Benares	In 48 hours	8	*Nil*	*Nil*	50	*Nil*	*Nil*	50	25	25	
		Within a fortnight	..	...	...	150	*Nil*	*Nil*	150	75	100	
	Meerut	In 48 hours	...	10	...	50	133	341	28	41	22	
		Within a fortnight	...	50	10	145	320	680	254	199	22	
	Dehra Dun	In 48 hours	...	...	...	...	...	...	...	...	...	
		Within a fortnight	...	...	10	30	80	45	5	90	15	Could be collected within a week.
	Kumaon	In 48 hours	...	...	...	...	...	...	...	..	..	Coolies are the only means of transport available.
		Within a fortnight	...	...	...	...	...	...	...	...	...	
	Faruckabad	In 48 hours	4	31	31	407	159	493	45	503	91 137	
		Within a fortnight	4	48	138	1,804	160	2,474	382	1,575	*124 338	* Pony Ekahs.
	Saharunpur	In 48 hours	...	...	...	20	50	60	...	20	30	
		Within a fortnight	...	10	70	235	390	975	30	270	50	
	Bundelkhand	In 48 hours	...	10	...	40	...	250	20	125	...	
		Within a fortnight	...	50	...	60	...	500	80	450	...	
	Lucknow	In 48 hours	...	...	...	...	...	...	...	25	20	
		Within a fortnight	...	...	...	125	...	66	135	335	45	

| | | |

Return of Pack Animals and Wheeled Carriage available for Transport purposes—concluded.

Presidency or Province.	District.	Time for collection.	Elephants.	Camels.	Horses.	Ponies.	Mules.	Donkeys.	4-Bullock Carts.	2-Bullock Carts.	Ekkas.	Remarks.
Central Provinces.	Nagpore ...	In 48 hours ...	...	...	...	10	...	10	...	250	15	
		Within a fortnight ...	...	...	...	50	...	50	...	1,400	80	
	Jubbulpore ...	In 48 hours ...	2	6	120	250	55	140	...	145	40	Numbers are approximate.
		Within a fortnight ...	6	30	330	950	55	165	...	260	50	
	Saugor ...	In 48 hours ...	...	...	...	45	...	170	...	30	...	
		Within a fortnight ...	...	...	...	80	...	348	...	515	...	
	Sambalpur ...	In 48 hours ...	...	...	...	50	...	...	...	200	...	
		Within a fortnight ...	16	...	...	300	...	...	...	4,000	...	In addition 2,000 pack-bullocks could be collected within a fortnight.
	Raipur ...	In 48 hours ...	...	...	...	...	...	...	10	50	...	
		Within a fortnight ...	...	...	...	...	...	50	130	305	...	
	Hoshangabad...	In 48 hours ...	2	...	a	21	...	20	...	53	...	Includes Commissariat cattle.
		Within a fortnight ...	5	...		101	...	80	...	178	...	a. Pack-bullocks ... In 48 hours ... 368; Within a fortnight ... 368
	Pachmari ...	In 48 hours ...	2	...	...	21	...	20	...	53	...	And in addition 368 bullocks.
		Within a fortnight ...	5	...	...	101	...	80	...	178	...	
	Sironcha ...	In 48 hours ...	...	...	...	...	...	...	...	50	...	
		Within a fortnight ...	...	...	...	...	...	...	...	400	...	
Madras ...	Madras ...	In 48 hours ...	...	...	60	100	...	20	...	100	...	
		Within a fortnight ...	...	...	200	191	...	40	...	1,000	...	
	Ganjam ...	In 48 hours ...	...	...	...	...	...	...	...	200	...	Procurable in dry weather.
										100	...	Ditto only during the rainy season.
		Within a fortnight ...	...	...	...	...	...	...	...	500	...	Procurable in dry weather.
										300	...	Ditto only during the rainy reason.
	Ootacamund ...	In 48 hours ...	...	...	20	100	...	10	2	20	...	In 48 hours 70 pack-bullocks could be collected.
		Within a fortnight ...	...	...	30	300	...	20	20	40	...	Within a fortnight 500 ditto ditto.
	Bellary ...	In 48 hours ...	...	...	...	...	...	...	...	50	200	To collect these numbers, it is presumed that extraordinary pressure would be used. About one-third of the animals, &c., could be got without more than the ordinary pressure.
		Within a fortnight ...	...	...	...	190	...	4,600	...	4,700	300	
	Chingleput ...	In 48 hours ...	...	...	...	...	...	...	...	300	...	
		Within a fortnight ...	...	...	...	...	...	...	...	650	...	
	Trichinopoly ...	In 48 hours ...	...	...	...	10	...	30	...	150	...	
		Within a fortnight ...	...	...	...	40	...	300	...	1,000	...	
	Vizagapatam ...	In 48 hours ...	...	...	...	...	...	...	...	80	...	
		Within a fortnight ...	...	...	...	...	...	...	...	500	...	
	Nilgiris ...	In 48 hours ...	...	...	20	100	...	10	2	20	...	Pack-bullocks 70.
		Within a fortnight ...	...	...	30	300	...	30	20	40	...	Ditto 500.
Mysore ...	Kadur ...	In 48 hours ...										
		Within a fortnight ...				700				350		Details are not given.
	Bangalore ...	In 48 hours ...	...	...	...	...	...	100	...	200	50	Deputy Commissioner states that probably a much larger number than he has given could be collected within a fortnight if liberal terms were offered to owners.
		Within a fortnight ...	...	...	...	...	...	400	...	800	100	
	Mysore ...	In 48 hours ...	...	...	...	...	...	...	...	70	15	
		Within a fortnight ...	...	...	...	...	...	...	...	160	30	
	Chitaldrug ...	In 48 hours ...										
		Within a fortnight ...				1,300				800		Details are not given.

APPENDIX LIV.

Notes and Suggestions on the Organization of a transport train for Foreign Service from Bombay, and on the improvement of the Field Column Carriage. By Colonel F. P. Mignon, Commissary General, Bombay Army.

["*Better to have 10,000 men with perfect Tranport, which ensures their efficiency, than double that number with imperfect Transport and all the evils which follow in its train—an embarrassed strategy, neglected sick, and an ill-supplied Soldiery.*"—LORD STRATHNAIRN.]

ORGANIZATION OF TRAIN.

Nearly every Officer who has written on the subject or has given evidence before Committees and Commissions agrees in opinion that it is necessary that the Transport should be a branch of the Commissariat and subject to the entire control of the Commissary General. We have the opinion of Sir Hope Grant, G.C.B.; Sir John Michel, K.C.B.; Sir W. Power, K.C.B.; Colonel Mackenzie, chief of the Quartermaster General's Department in China; that of Commissariat Officers employed in China, New Zealand, and in Abyssinia; andthe opinion of the Committee appointed by the War Office, 1865, of which Lord Strathnairn, G.C.B., G.C.S.I., was President, recorded in the following words:—

Transport to be a branch of the Commissariat.

"*After careful deliberation, the Committee have agreed that the Army Transport should be organized as* ONE SERVICE, *and as Transport is so intimately connected with, and is of such vital importance to Supply, it must necessarily be under the direction of the Officer at the head of the Administrative Staff of the Army, who is responsible for the supply; it would in fact be impossible to enforce such responsibility without giving absolute control over the means by which the supplies are collected and conveyed. The Committee accordingly recommend that Army Transport should be placed under one direction and control to be vested in the Officer responsible for the supply of the Army.*"

Opinion of Committee on Transport and Supply, 1865.

2. The Government of Bombay accepted these views in their minutes on the organization of the Land Transport for the Abyssinian Expedition in 1867.

Opinion of Bombay Government.

3. The separation of Supply and Transport having been thus declared most impolitic, injudicious, and indeed unfair to the department of Supply, the machinery to work the whole must be considered, and how far the constitution of the Commissariat can be reckoned on for this purpose.

The Commissariat establishment of the Bombay Army is barely sufficient for current garrison duties; the entire strength of the department would not suffice to meet the wants of a proper system of Transport, on service, for its own quota of troops, leaving not one Officer for Commissariat duties. But by assistance from Bengal and Madras (so promptly rendered during the Abyssinian Campaign) and by placing the duties at as many cantonments as possible in charge of Regimental or Station Staff Officers, a sufficiency of Commissariat Officers might be made available for the most important charges of the Train.

Officers, source of supply.

4. Considering the arrangements necessary for the formation and conduct of a Transport Train for service out of India, and the task which at this very time devolves on the Commissariat in meeting the wants of the force for the voyage, and also at its base of operations, a division of labour becomes a positive necessity and is a main feature of the following scheme, under which, *with sufficient assistance in officers*, it is believed the army would be best supplied, the State best served, in the knowledge of business and the experience which the Commissariat Officers would bring to the work, the adjustment of accounts facilitated, economy ensured, and antagonism avoided.

Necessity for division of labour.

Advantages of proposed scheme.

5. The Director of the Train to be a Senior Commissariat Officer, subordinate to, and receiving his orders direct from, the Commissary General of the Force; but the staff of Officers and subordinates of the Train to be entirely distinct from the Commissariat and under the orders and at the entire disposal of the Director.

Director a Commissariat Officer; his position.

6. The other Officers of the Train to be partly Commissariat, but chiefly and necessarily Regimental, merely attached for the campaign; the Officers in charge of the main depôts, however, to be in all practicable cases Commissariat Officers.

Executive and Depôt Officers.

7. The Director to perform only administrative duties; the Depôt Officers to be disbursing Officers, preferring their accounts direct to the Account Department; the Divisional Officers of the Train to send their Returns of Stock and Stores and Pay documents, &c., to the Depôt Officer, who would examine, classify, and embody the whole for submission to the Accounts Department.

Depot Officers to adjust accounts.

8. The Commissariat and the Transport each to have its own separate establishments and its own responsible Head, each with its distinct organization for its operations, as also for the record and final adjustment of its transactions.

Supply and Transport Establishment distinct.

9. The mass of the Transport Train must of course be derived from the country of operations, and in its organization the greatest difficulties will have to be met. Officers entrusted with this duty must have efficient aid in subordinate establishments and Interpreters. They should be Commissariat Officers and precede the force to purchase animals and equipments.

Officers to precede the Force to make purchases.

10. They should each be accompanied by a couple of smart Inspectors and half a dozen Muccadums accustomed to manage mules or camels (as the case may be) and a small office establishment; good Interpreters are essential.

Establishment for purchasing.

11. These officers should render their accounts to the Depôt Officers at the base of operations, for embodiment in the accounts of the Train, and on completion of their duties would rejoin the Commissariat Department.

Account of purchases for Train to be sent to Depot Officers.

ESTABLISHMENTS AND THEIR DUTIES.

12. The lists of establishments allowed for the Persian and Abyssinian Expeditions have been consulted; but it is useless to draw out comparative statements to arrive at a conclusion that this or that estimate is heavy, and the expense unnecessary in the absence of the saving that resulted or may be expected from the successful application of any system. We may overdo establishments (most unlikely) and lose a few rupees, and we may lack establishments (highly probable) and lose tens of thousands of rupees. The Train, like the Commissariat, to be of any use, must be efficient; experience has proved that the cost of establishments is but a drop in the ocean of expense which can be saved by working efficiently and intelligently.

Date on which Establishments are based.

13. The following are the establishments recommended :—

Head-Quarters of the Train, Director's Establishment.

THE HEAD-QUARTERS OF THETRAIN.

1 Director, a Senior Commissariat Officer.
1 Assistant Director, a Regimental Officer.
3 Writers.
1 Interpreter.
4 Peons (mounted).

An Assistant Director is necessary; he will be the Inspecting Officer of the Train and carry out the duties at the head-quarters in the unavoidable and temporary absence of the Director.

DEPÔT AT THE PORT OF EMBARKATION.

14. Immediately a force is ordered for foreign service the following establishment, estimated for a force of two Divisions, should be entertained and the depôt at once established at Bombay; its duties would be to take charge of all animals, purchase, prepare, pack and ship equipments, entertain followers and drivers, and forward the whole on to their destination; and to keep and prefer direct to the Account Department the accounts and returns of all its transactions :—

Duties of Depôt at port of embarkation.

Establishment of Depôt at port of embarkation.

1 Commissariat Officer in charge.
1 Assistant (a regimental Officer).
1 Paymaster (a Regimental Officer).
1 Quartermaster (a Regimental Officer).
1 Veterinary surgeon.
1 Conductor.
2 Sergeants.
1 Head and 12 Clerks (or more if necessary).
1 Shroff.
4 Inspectors, 1st Class.
10 Inspectors, 2nd Class.
20 Nowgunnies.
20 Packers.
6 Peons.

15. The Paymaster and Quartermaster of the Depôt should see that the Pay and Acquittance Rolls and Registers of Followers, that the Day Book, Ledger and Return of Equipments and Dead Stock are commenced and kept up, day by day, on the entertainment of the first man and the first article purchased, and *not* after preliminary arrangements have merged into a state of hopeless entanglement. A want of a proper system at the commencement must necessarily tend to cause confusion and difficulty in the adjustment of transactions.

Paymaster and Quartermaster's duties.

16. The organization of the Establishments and drivers should be at once commenced; the duty required of the men, pay, rations, clothing, passage to and from their homes, and all other terms of their engagement to be clearly explained to the men, to prevent discontent or disappointment.

Organization of Followers to be commenced at once.

Preparation of equipments.

17. In like manner the preparation of the Equipments in India should be at once attended to; there is no stock, no surplus, everything has to be made or improvised.

18. Establishments and Drivers of the Train proceeding from India should be embarked complete in every respect with their equipments, clothing, pay papers, &c., in order, in charge of the Officers *under whom they are to serve.* The system and organization should, as far as practicable, be matured here and not at the port of debarkation.

Establishment to embark complete.

19. The Commissariat Officer in charge should be the responsible Head of the Office and a disbursing Officer, rendering his accounts direct to the Account Department. It is believed it would simplify accounts and allow of the expenditure being better understood and more under control were all transactions all over the country brought together, recorded, and rendered from this one office; the numbers of the Clerks would of course have to be increased and the work, to be of any use, done in an efficient manner.

The Depot Officer to render accounts.

Pay of Establishment.

20. The pay of the subordinates to be fixed as low as is consistent with securing able and intelligent labour,—lower than field rates, but to be raised to those rates for such as may be hereafter sent on service.

Final settlement of accounts.

21. The Depôt Officers should be kept at work during the whole period of active operations; and on the return and breaking up of the Train should settle the pay of the followers, dispose of the animals and equipments, and finally close the accounts. No expense should be spared in keeping the Depôt establishment in thorough working order; it would repay the State a thousand fold whatever its apparent costliness may be—experience has proved this.

22. DEPÔT AT THE PORT OF DEBARKATION.

Establishment of depôt at port of debarkation.

1 Commissariat officer in charge.
1 Assistant for general duty (a regimental officer).
1 Paymaster (a regimental officer).
1 Quartermaster (a Regimental officer).
1 Veterinary Surgeon.
2 Conductors.
2 Serjeants.
1 Head and 12 clerks (or more if necessary).
1 Shroff.
4 Inspectors, 1st Class.
8 Inspectors, 2nd Class.
8 Weighingmen.
6 Peons.
2 Second Muccadums and 50 store biggarees.
2 Dhobies.
2 Sweepers.
2 Puckaul bheesties.

Veterinary and Artificers' establishment for the Depôt.

2 Native Vets or Salootries.
1 Head nalband.
12 Nalbands.
4 Cattle doctors.
1 Head smith.
12 Smiths.
1 Head carpenter.
12 Carpenters.
1 Head moochie.
12 Moochies.
1 Rope-maker.
4 Rope-makers.
12 Hammermen.
12 Bellows-boys.
6 Puckaul bheesties.

Duties of Depôt at port of debarkation.

23. This depôt should land and receive charge of all cattle, followers, and equipments shipped and invoiced from the depôt at port of embarkation, distribute them to Divisional Commanders under the Director's orders, and record all transactions connected therewith. It should receive and dispose of, in like manner, all local purchases, or purchases made by officers specially deputed for the purpose. It should provide the necessary establishment for the feed of the animals and the rationing of the followers, drawing such supplies on daily or weekly requisitions from the Commissariat Department. It should, as far as possible, organize and maintain a local transport as an auxiliary to the Government train.

Duties of the office.

24. The officer in charge should be a senior commissariat officer; he should be a disbursing officer rendering his accounts direct to the Account Department. The accounts should embody all transport charges in the country of operations. The Divisional Commanders should submit their accounts and returns to the depôt office. The Paymaster should be the depôt officer's assistant in all matters of accounts and the Quartermaster in all matters of stores and equipments.

Duties of artificers' establishment.

25. The number of the artificers' establishment will depend upon the nature and description of the transport used. A veterinary establishment is provided, as the depôt should receive and tend all sick animals. The depôt should also in its work-shops put together and repair carts and equipments of all kinds, examine them on arrival or return, and forward them to the front in a serviceable state, and be in a position to comply with requisition for materials for repairs, stuffing of saddles, &c., from the Depôts in the front and from divisional commanders.

Final duties.

26. On the termination of the campaign the depôt should perform all the duties of the embarking office, ship the animals and invoice the return of the equipments, &c., &c.

Divisions to be of 1,000 animals only.

27. In this scheme all divisions are recommended to be of 1,000 pack animals; or, if of wheeled transport, of 500 carts with 1,000 animals; these numbers are capable of being better worked and better supervised than larger and unwieldy divisions; the work is ample for the establishment if efficiency is to be secured.

28. PACK DIVISION DRIVERS—NATIVES OF INDIA.

1,000 Mules or Camels, divided into 5 Troops of 200 each.

Establishment of a Pack Division with drivers, *natives of India.*

1 Regimental officer to command.
1 Regimental officer 2nd in Command.
3 Writers.
5 Inspectors, 1st Class.
5 Inspectors, 2nd Class.
5 Weighingmen.
5 Head Muccadums.
20 Second Muccadums.
500 Drivers.

Divisional Artificers.

2 Salootries or Native Vets.
10 Nalbands.
5 Moochees.
2 Blacksmiths.
2 Bellows-boys.
2 Carpenters.
2 Puckaul Bheesties.

Duties of Divisional Commanders.

29. Officers to command divisions should be nominated as early as possible; some to join the depôt at port of embarkation that the organization of the divisions, the entertainment and payment of their Followers, may proceed in conjunction with the depôt officer to obviate double registration and double labour; others should be deputed to outstations, to recruiting centres, there to entertain and organize their followers and establishments and bring them to the seaboard for embarkation. Recruiting agents should be largely employed; the number of drivers required cannot otherwise be obtained. We should not wait for the men to come to us, but use every endeavour to induce enrolment, bearing in mind that ten thousand men may be required.

30. Under a proper system Divisional Commanders should embark with their establishments complete, and they would then land and be ready then and there either to march with the Division, or take charge of 1,000 animals at the base of operations and leave for the front complete in every respect within two days.

31. They should keep a return of all equipments and a register of all followers and see them paid in their presence, forwarding the vouchers complete to the depôt officer for embodiment in the depot accounts, with a transcript of the cash account and return of equipments, and for which a small office establishment is provided.

32. They should be responsible for all the equipments in charge and all stores under transit being furnished with Way Bills, &c.

33. They should receive from the Commissariat Department all the rations for the men and forage for the cattle, accounting for the same in the usual manner.

34. The command of divisions should be entrusted only to officers of standing and experience, and they should be empowered to punish offenders for the maintenance of discipline, and to act at their discretion in all cases of emergency.

Distribution of establishments.

35. For divisions with drivers, *natives of India*, the supervising establishment should be native an actual military element is not necessary, but see paragraph 56.

Inspectors.

36. The inspectors on good pay should be carefully selected, active and intelligent men, able to read and write English and keep accounts, and there is no reason why they should not have complete control over the men. The establishment has been fixed at one 1st class and one 2nd class inspector to every 200 animals, head muccadum 1 to 100, the 2nd muccadum 1 to 25, and drivers 1 to 2 animals as in India.

Rationing Establishment.

37. There should be a Weighingman to each Troop of 200 animals to receive, weigh, and distribute the rations to men and cattle.

Artificers' Establishment.

38. This establishment should be provided with field forge and all tools complete, with a sufficiency of materials for repairs, in the way of iron bar and rod, nails, screws, leather, rope, twine, needles, &c. These should accompany their divisions on the march, or, if working on a line of communication, a portion should be located *en route* at outposts and reduce the impedimenta.

Medicines for Cattle.

39. The native farrier or salootrie should be provided with a box fitted with tin canisters and bottles for simple medicines, with scalpel, clyster pipe, and syringes.

40. PACK DIVISION WITH FOREIGN DRIVERS.

1,000 mules or camels, divided into 5 troops of 200 each.

Establishment of Pack Division with *Foreign Drivers.*

1 Regimental Officer to Command.
1 Regimental Officer 2nd in Command.
3 Writers.
5 Interpreters, 1 for each Troop.
5 European Serjeant Inspectors, 1st Class.
" " " 2nd Class, or Havildars from N. I.
5 Weighingmen (Hindoostanie Mussulman).
20 Muccadums, selected by the men themselves.
500 Drivers.

Divisional Artificers.

2 Salootries or Native Vets.
10 Nalbands.
5 Moochies.
2 Blacksmiths.
2 Bellows-boys.
2 Carpenters.
2 Puckaul Bheesties, with field forge, tools, &c., complete.

Distribution of Establishment for Foreign Drivers.

41. For a division of the train with foreign drivers, such as Arabs, Persians, Egyptians, &c., &c., men of irregular habits, untrained, unaccustomed to restraint, and generally headstrong and unruly, the inspectors to be European Serjeants, two per troop of 100 drivers. The muccadums, 1 to 25, to be selected and nominated by the men themselves. The nationalities should be kept distinct and distributed in order, to the several Divisions and troops, so that they might each consist, as far as possible, of men of the same religion, tribe, and district. (See paragraph 58.)

Interpreters for Foreign Drivers.

42. There should be an Interpreter to each troop. He should be carefully selected and be a trustworthy man; the cheerful working of the drivers will depend in a great measure on the intelligence and willing obedience of their Interpreters.

Rations to be suitable and sufficient.

43. The foreign drivers would generally be Mahomedans, and the ration scale should be a suitable one and not limited to the issue for Followers from India. These men are more European than Oriental in their diet, and no discontent should be risked by an injudicious, an unsuitable, or an insufficient issue of food.

44. CART DIVISION, DRIVERS NATIVES OF INDIA.

If sent from India, 500 Carts with 1,000 Bullocks.

Division of Bullock Carts, Drivers *natives of India.*

1 Regimental Officer to Command.
1 Regimental Officer 2nd in Command.
3 Writers.
5 Inspectors, 1st Class.
5 Inspectors, 2nd Class.
5 Weighingmen.
5 Head Muccadums.
20 Second „
500 Drivers.

Artificers' Establishment.

Artificers' Establishments for Carts.

2 Salootries or Native Vets.
5 Blacksmiths.
5 Harmmermen.
5 Bellows-boys.
5 Carpenters.
10 Nalbands.
2 Moochies.
3 Puckaul Bheesties.
Portable forge, tools, materials, &c., complete as before mentioned.

Organization of Cart Division.

45. The duties and organization of this establishment should be the same as that given for the Pack Division with drivers natives of India.

Bombay Hackery for the Train.

46. The Bombay bullock-hackery, as used everywhere in this Presidency, could easily be procured in large numbers and at a cheap cost, more especially at Bombay, Panwell, and near Nagar. It is much lighter than the Government platform cart, and quite sufficiently strong and durable for ordinary campaigning; it is easily repaired; the native artificers are accustomed to it. Wheels would require retiring; one set of spare wheels to every five carts and spare yokes and traces and double yokes for four bullocks should be taken.

WAGON DIVISION, DRIVERS NATIVES OF INDIA.

Division of Mule Wagons with Drivers *natives of India.*

If sent from India, 500 light Wagons with 1,000 Mules, or larger Wagons with four Mules each.

Establishment for Mule Wagons.

47. The establishment to be the same as for the Cart Divisions. The duties and organization of this establishment should be the same as for a Pack Division with Drivers natives of India.

Value of Wheeled Transport.

48. The Cart Divisions should be the most valuable portion of the train, and there are but few countries in which they cannot be used. The wagons could be utilized on occasions as ambulances. From an economical point of view carts should be employed as far as possible, as two mules or two bullocks in draught will do the work of five in pack.

HIRED LOCAL TRANSPORT.

Local Transport to be hired, if possible.

49. As an auxiliary to the Train proper is likely to be a very economical arrangement, it is sound policy to encourage the carriers and give them a direct interest in our work; this might indeed be of high political importance to the Force. It would therefore be better to hire than to buy whenever and wherever such is possible, and to buy only where native carriers are unwilling to serve or are not to be

had, or where their carriage could not be as economically transferred to the country of operations as a Hired Transport.

Establishment for *Hired Pack* Transport.

50. The following establishment should suffice :—

For a Division of 1,000 Pack Camels or Mules of Foreign *Hired* Transport—

1 Regimental Officer, to Command.
2 Inspectors, 2nd Class.
2 Interpreters.
10 Muccadums.

The Inspectors to be capable of keeping the accounts, framing pass notes, way bills, &c., the Muccadums, to be selected by the men themselves, receiving a small salary over and above the stipulated rates of hire.

Establishment for *Hired Cart* Transport.

51. A similar establishment to that for *Hired Pack* Transport should be allowed for *Hired Carts*.

COOLIE TRANSPORT.

Establishment for *Hired Cooly* labour.

52. A similar establishment should be allowed for every Division of 1,000 *coolies* as Transport.

Management of Hired Foreign Transport.

53. The Hired Transport would require to be worked with tact and judgment; its supervision should be effective, yet careful and judicious, without unnecessary interference. It might afford the most valuable and important assistance to the Force.

54. Although all Hired Transport should arrange for its own repairs, shoeing, &c., &c., still, as its efficiency is of great importance, some assistance should be readily available. The following establishments would probably suffice :—

Artificers' Establishment for Hired Transport.

Pack Transport.	*Wheeled Transport.*
2 Nalbands.	3 Blacksmiths.
3 Moochees.	3 Bellows-boys.
	3 Carpenters.
	2 Nalbands.

These establishments should be located at the depôts on the line of route.

FIRST LINE OF TRANSPORT THE PROPERTY OF GOVERNMENT.

Weight-carrying power of Train.

55. Assuming the Train to consist of 20 divisions, 15 divisions each of 1,000 pack mules *or* camels and 5 divisions each of 500 carts with 1,000 bullocks *or* mules, giving a total of 20,000 animals, of which, for purposes of calculation, 5,000 are taken as camels, the train would give a carrying power of say 2,500 tons, as follows :—

10	Divisions	of Pack Mules,	at 160 lbs. each	= Tons	714 5
5	„	of Camels,	at 400 „	= „	892 17
5	„	of Carts,	at 800 „	= „	892 17
20	„	of 20,000 animals	= Tons 2,500,		

and the abstract of the establishments would stand as under :—

	For 10 Divisions of Pack Mules or Camels with Drivers natives of India.	For 5 Divisions of Mules or Camels with Foreign Drivers.	For 5 Divisions of Cart with Drivers natives of India.	Total for 20 Divisions, with 20,000 animals.
Commandant (a Regimental Officer)	10	5	5	20
2nd in Command „	10	5	5	20
Writers	30	15	15	60
Interpreters	...	25	...	25
European Serjeant Inspectors, 1st Class	...	25	...	25
European Serjeant Inspectors, 2nd Class	...	25	...	25
Native Inspectors, 1st Class	50	...	25	75
Native Inspectors, 2nd Class	50	...	25	75
Weighingmen, Natives	50	...	25	75
Weighingmen, India Mussulmans	...	25	...	25
Head Muccadums, natives of India	50	...	25	75
2nd Muccadums, natives of India	200	...	100	300
Drivers, natives of India	5,000	...	2,500	7,500
Muccadums, Foreign, selected by the men	...	100	...	100
Drivers, Foreign	...	2,500	...	2,500
Salootries or Native Vets	20	10	10	40
*Nalbands	100	50	50	200
Moochees	50	25	10	85
Blacksmiths	20	10	25	55
Hammermen	...	...	25	25
Bellows-boys	20	10	25	55
Carpenters	20	10	25	55
Puckaul Bheesties	20	10	15	45

* Calculated for all divisions of mules, 1 nalband to 100 animals.
This abstract does not include the Depôt Establishments.

NOTES ON FOREGOING SCHEME.

Guards for depôts and divisions.

56. In the absence of a military organized train the army should furnish the guards necessary to accompany all convoys and for service in Oriental countries; this may be said to be the least expensive and only feasible plan. In the foregoing scheme the military element is reduced to a minimum; it is in fact only with divisions with

Foreign Drivers that a single soldier is employed, but although the military element is unnecessary as a part of the *working* establishment of the Train, still, dealing with so heterogeneous a mass with followers of all nationalities numbering several thousands untrained and undisciplined, brought together for the first time to work as a whole, it is most necessary that a Guard, say a Havildar's party, as a nucleus of power, should be attached to each Depôt and to each Division (if not under escort of or accompanying troops) to uphold authority, enforce obedience, and promptly punish disaffection and insubordination. This is most important, and is essential for the preservation of order and the regularity of work in an Indian Transport Train. The Guard should be under the immediate orders of the Transport Train officers.

Drivers to be natives of India.

57. The materials for the Train are generally bad, and there is little or no time to improve them. To the want of a sufficient nucleus and an organized Transport and the heavy expense which results therefrom when a Force takes the field must be added the concurrent loss from the neglect, the dishonesty, and the ignorance of the men we have to depend upon. Bad as are our materials, they might be many times worse as experience taught us in Abyssinia. In India labour is cheap and abundant, and if sufficient inducements in shape of pension to family on death or adequate gratuity for wounds are offered, there should be no necessity to go to other countries for our establishments; of the capabilities of the Punjab and of Bengal we have ample knowledge, and in Bombay, Poona, Nagar, &c., we could raise many men fairly obedient and manageable, dependent upon us, and with whose language, habits, and customs we are familiar. Entertaining foreign drivers we know to be expensive; it has always resulted in failure either partial or entire, and it appears unnecessary when men can be got from our own provinces. Collect animals from every point but place them in charge of drivers from India; this appears the soundest policy and the cheapest.

Foreign Drivers how to be employed.

58. Should the demand be so large as not to be met in India, and the entertainment of *foreign* drivers become a necessity, they might be almost exclusively employed with *European troops* for the conveyance of camp equipage, baggage and ammunition, &c., under *European* convoy. They would be well looked after, under some discipline and would offend no prejudices.

Limitation of loads.

59. All officers should be held personally responsible that the limitation of load is not exceeded. This is a constant and just cause of complaint, and is the faithful source of inefficiency, and should be promptly dealt with. Divisional Commanders should weigh the loads occasionally and discard all surplus weight, reporting each instance for the information of the General Officer Commanding.

Labour for loading.

60. No special labour is provided for loading pack animals. Such an establishment would ordinarily be desirable more especially at depôts; but they necessarily augment the non-effective element and are a source of weakness. Troops should assist to load their own quota of carriage: with convoys the muccadums should arrange with the drivers of their squads to work together and assist each other; it is more a question of time than labour.

Weight of loads.

61. The weights to be carried should be limited to—

Elephants	800 to 1,200 lbs., according to size.
Camels	300 to 400 „ „
Mules	160 lbs.
Pack bullocks	160 „
Wagons of 2 mules or bullocks ...	... 800 „
Wagons of 4 „ ...	... 1,600 „
Carts with 2 bullocks ...	... 800 „
Maltese carts, 1 mule ...	... 450 „

Weight of equipments.

62. The equipments of cattle weigh as under, and as 20 lbs. may be allowed to be the weight of the driver's kit, it will be seen that the net weight to be carried as above shown is ample for continuous work :—

Elephant,—Gaddees, guddala, peytee, saleeta, ropes buntha, and ropes loading ...	314 lbs.
Camels,—Saddles, saleeta, chursa, and loading rope	114 „
Mules,—Saddle, saleeta, and loading rope ...	48 „
Pack bullock,—Saddle, saleeta, loading rope ...	59 „

Mule Equipments.

Mule Saddle.

63. A new pack-saddle has lately been approved and introduced in Bengal; it has an iron frame with leather pads, the loads being secured with straps and sling on hooks. It is somewhat similar to the Otago pattern and appears best suited for large mules. It is an expensive article. Punjaub pads are good, but unless very carefully fitted and secured, are apt to cut the back at the straps which hold the two pieces together. The Bombay pad is cheap, serviceable, and indestructible, and perhaps the best: the saleeta used with it is most useful, prevents loss from leakage and torn grain-bags, and allows of several small packages being safely carried together.

Girths.

64. The girths should be of strong cotton tape or webbing; leather hardens and is not as durable.

Head stalls.

65. Head stalls should be of either English leather or of leather tanned in the English way; country-made articles of country leather are generally worthless.

Picketing Chains.

66. Picketing chains are preferable to rope; if well made and of galvanized iron they would not be stouter than a substantial dog-chain. They should be obtained from England, as nothing really suitable is to be got in the local markets.

Tobras.

67. Should be of leather with the corners rounded off.

The description and dimensions of the several articles of mule gear are given at page 103 of th Commissariat Code.

Camel Equipments.

Camel equipments.

68. These, as used in India, are of a very good description and admirably suited for all service, and nearly every article can be repaired or patched up on occasion by the drivers themselves; the articles comprising the gear of a baggage camel are laid down at page 101 of the Commissariat Code.

Pack Bullock and Draft Bullock.

Bullock equipments.

69. The equipments well suited for service are detailed at pages 108 and 109 of the Code.

Tethering Ropes.

70. Good tethering ropes should be taken, more especially for pack bullocks, with hold-fast knots of the description given at page 131 of the Commissariat Code.

Buckets.

71. Every man should have a small galvanized iron bucket, with 20 or 30 feet of half inch rope.

Water Bags ("Kullees.")

72. Every mule should be provided with a water bag or "kullee," and the transport officer in charge at each station will see this bag filled prior to the march commencing. (A.F.F.G.O.)

Sickles ("Koorpees.")

73. Every cattle attendant should be supplied with a good saw-edged grass-cutting sickle, the handle to be rivetted to the sickle and not merely pushed on as usual.

Paulins.

74. The transports should be well provided with paulins, say one to every cart and one to every two pack animals, for the protection of stores *en route* and when halting. The painted paulins are the best; they should be made of the lightest and least expensive material, merely to last for the special service: a more costly and durable article is not necessary. They should be pierced with a few eyelets all round, with two feet of small cord attached to each eye for tying, and could then be used not only for the protection of stores but of the drivers as *tentes d' abri*. They should be of the following sizes:—

For Elephants	...	...	...	12	feet by	10	feet.
„ Camels	...	...	...	8	„	6	„
„ Mules and pack bullocks			...	7	„	6	„
„ Carts	...	...	...	10	„	9	„

Numbering of Followers.

75. The followers of the train should be numbered under a system of tallies or metal tickets. It may be impossible to keep up registers or nominal rolls. Each man would be known by his number, renewals and casualties being marked by the issue of a new ticket and a new number.

Numbering of divisions.

76. The divisions of the train should also be numbered as—

No.	1	A	Division,	No.	2	A	Division—Mules.
„	1	B	„	„	2	B	„ —Pack bullocks.
„	1	C	„	„	2	C	„ —Camels.
„	1	D	„	„	2	D	„ —Carts.

Arming of followers.

77. The necessity or advisability of arming the subordinates and drivers of the train should be considered with reference to the state of the country, &c. The inspectors and muccadums should under any circumstances be armed with short swords.

Family remittances.

78. Followers of the permanent establishment should be allowed to fix the payment they wish to be made to their families during their absence; and this payment should be made monthly, one month in arrears,—that is, for January in March,—and be continued until return, discharge, or death is communicated to the disbursing officer; on his transfer from one division to another it must be stated that he is under stoppages or he may receive his full pay plus the payment made in India to his family.

Followers entertained merely for the expedition should be allowed to tender cash to the paymaster or officer in charge of the treasure chest and receive a remittance transfer receipt for transmission to their families by post; this could be done by the divisional commander on behalf of his followers in one list to the Paymaster, on each issue of pay.

Establishments to be informed of the pay and privileges.

79. All followers entertained for service should be distinctly informed of their privileges, pay, &c., &c.; disputes and disappointments would be thus prevented. They should be informed whether they will receive rations free or not on board ship and on shore, and on what scale; whether their pay will cease on their disembarkation or discharge, or whether they will receive pay or passage back to the stations at which they may have been entertained; whether they are to receive any issue of warm clothing and to what extent. The superior establishments should be informed of their privileges also, as regards rations and passage, and whether compensation or table money will be allowed. All followers should be given to understand that their pay and such issues as above, as may be sanctioned, will be the extent of their claim; that no batta, gratuity, or other allowances, such as compensation for failure of any article of food (the issue being made as far as practicable) will be given. For service beyond sea of a temporary and exceptional nature some inducement to secure early enrolment should be held out, such as pension to family, say of one-fourth of salary in case of death on service or a gratuity of six months' pay for wounds which may incapacitate for work.

Points for early disposal.

80. Much correspondence would be saved and the business of organization greatly expedited by the points noted in the following paragraphs, under *clothing*, *rations*, *pay*, and *passage* meeting with early consideration and disposal. Circumstances and the nature of the service will of course influence the decisions to be arrived at; the following are therefore merely suggestions for consideration and are based on the experience of past necessities, it being borne in mind that liberal offers facilitate work and secure early enrolments, which might otherwise be indefinitely deferred in the hope of a rise or of a bonus.

81. It is very desirable that the followers of the train be dressed alike and in some distinctive uniform. Should a gratuitous issue of warm clothing be made, the materials might be of one colour and the collars and cuffs of the great coat and mirzies of another. This would add but very slightly to the cost and secure the desirable uniformity.

Clothing.

82. The following was the scale of issue to native followers for the China and Abyssinian campaigns:—

1 Country blanket.
1 Cloth great-coat.
1 Lascar's mirzie, lined.
1 Pair cloth pyjamas.
2 Flannel banyans.
2 Flannel drawers.
2 Pairs woollen socks.
1 Pair shoes or boots.

A waterproof sheet is a most desirable addition to this list, and the flannel banyans and drawers might be reduced to one each for a first issue.

83. The boots should be English; the country-made articles, from badness of material and workmanship, wear out in a week. It is of the very first importance that the drivers should be in possession of good boots; this was subsequently recognized during the Abyssinian Expedition and boots were obtained in large numbers from England.

84. Clerks and inspectors received the following clothing, &c.,—

2 Cholera belts.
2 Flannel shirts.
2 Pairs worsted socks.
1 Waterproof sheet.
1 Pair gaiters.

Such an issue is not generally suitable; the men are of various creeds and castes, and it would be better and more acceptable to allow them to supply themselves, the Government issue being limited to a pair of English boots and a waterproof sheet, articles which are not usually or readily procurable in the bazars; for the rest an allowance might be made of rupees twelve, which would about represent their value.

85. The followers should not be allowed to embark until they are completely equipped.

86. Writers and inspectors, being Eurasians, Parsees, and others accustomed to meat diet, should receive the European scale of rations. Chinese artificers should also receive the European scale, all minus liquor.

Rations.

87. Persians and Egyptians should also receive special rations. The following might be acceptable:—

Rice or flour	2 lbs.
Dholl	4 oz.
Ghee	2 oz.
Salt	$\frac{3}{4}$ oz.
Sugar	3 oz.
Tea	$\frac{1}{2}$ oz.
or Coffee, ground, in lieu	$1\frac{1}{2}$ oz.
Currystuff, mixed	oz.
or Tobacco in lieu	$1\frac{1}{2}$ oz.
Mutton or goat	8 oz.

twice a week when procurable.

88. It is worthy of consideration whether the scale of rations to public followers on service should not be assimilated to that of the issue to native troops. They have to perform as arduous, if not more arduous, duties, and their physical condition is of great importance.

89. Officers of the commissariat employed with the transport train should receive the pay of their departmental rank, with the exception of the Director, who, if not an Assistant Commissary General, 1st class, should receive the pay of that grade.

Pay.

The staff pay of the Assistant Director to be that of a Deputy Assistant Commissary General, 1st class.

„ of Divisional Commanders to be that of a Deputy Assistant Commissary General, 2nd class.

„ of 2nd in command to be that of a Sub-Assistant Commissary General, 1st class.

„ of Paymaster, Quartermaster, and other Regimental Officers temporarily employed, to be that of a Sub-Assistant Commissary General, 1st class.

90. The following were the ruling rates of pay to the subordinate establishments employed during the Abyssinian Expedition, with free rations and warm clothing:—

Clerks, from Rs. 250, Head, to Rs. 60, Junior.

	Rs.
European Serjeants, 1st class Inspectors	120
European Serjeants, 2nd „ „	80
Havildars, 3rd „ „	40
Native 1st class Inspectors	120
Native 2nd „ „	80
Moonshees or Interpreters	50
Weighingmen	30
Head muccadums	20
2nd muccadums	12
Drivers	10
Salootries or native vets	Various.

	Rs.
Head nalbands ...	40
Assistant Nalbands	30
Head moochies ...	25
Assistant moochies	22
Head blacksmiths ..	45
Assistant blacksmiths	22
Hammermen ...	13
Bellows-boys ...	9
Head carpenters ...	45
Assistant carpenters	22
Head Rope-makers	45
Assistant rope-makers	22
Biggaries ...	10
Peons	10
Dhobies ...	15
Sweepers ...	15
Puckaul Bheesties...	24
Hand Bheesties ...	12

Passage.

91. Clerks entertained for service in Abyssinia were allowed a free passage for a baggage pony, paying for its forage and also for a servant, and this privilege was extended to inspectors as regards baggage and a free passage to a servant, in G. R. 3097 of 4th September 1867.

92. Europeans and East Indians are usually allowed 2nd class accommodation on board ship; this should be extended to Parsee and other clerks, overseers and inspectors of the superior establishments, whose domestic habits are the same as those of Europeans and Eurasians; when European rations are not available for issue to this class of servants, they should be granted table money.

93. Passage by sea or rail back to the place from which they were ordered, or at which they were entertained, should be granted to all Public Followers with field rates of pay to date of arrival at Bombay only, and ordinary Indian pay to members of a permanent establishment or batta at 4 annas a day to followers temporarily engaged for the expedition, until their arrival at their destination.

SUGGESTIONS TO ECONOMIZE TRANSPORT.

Regimental Transport, advantages of.

94. A system of regimental transport would render regiments doubly efficient and allow of army transport proper being much more easily worked. Colonel Holland, C.B., the late Commissary General, referring to the Punjab regiments in Abyssinia, wrote as follows :—

*"The Bengal Regiment arrived in Abyssinia provided with baggage animals complete, sufficient for the carriage of tents, baggage, ammunition, &c.; the organization was entirely regimental and the animals became, so to speak, the property of the corps, every man of which, from the Commissioned officer down, was interested more or less in the efficiency of the animals and equipments as affecting the marching condition of the regiment and its chance of getting to the front. The drivers in like manner belonged to the regiment and were, it is believed, in many instances closely bound to it by the ties of relationship; discontent was unheard of amongst them, because the number of men under the charge of each Commanding Officer was so few that their wants could be easily attended to and their grievances speedily redressed. This admirable system could be easily extended and indeed, in the case of Lieutenant-Colonel Chamberlain's Regiment, if I remember right, it was done to some purpose; the regiment, having a proportion of spare animals, undertook to carry some fifteen or twenty days' provisions, with which it started by forced marches to overtake the main force under Lord Napier. This relief to the Commissariat in this instance was most seasonable, and proved with what advantage an extension of the Regimental system might be applied when required."**

Regimental system economical.

95. The general adoption of this system would be economical; it is admirably suited to the native army and has proved entirely successful. Expenses of transport cannot be judged from the apparent economy of centralization; inefficiency and neglect upset all calculations. If Commanding Officers were personally interested in the state of the baggage animals, and the movement of the regiment rested upon the care taken of the transport, the economy must be on the side of the system which prevents loss from the irresponsible use of carriage and entire dependence upon the train for such a transport as may be demanded and must be supplied. The regiment which can carry its baggage, ammunition, and fifteen days' provisions, without the intervention of the train, is a power in itself.

Regiments and Departments to supervise their own Transport.

96. The next best course is to provide each regiment with its complement of carriage and hold it responsible for its efficiency, the train officer arranging for the return and utilization of such animals as may be surplus owing to the expenditure of the stores for which the carriage was originally supplied; and this system might be observed with all departments requiring specific transport for continuous and fixed duties.

Caste Messes in Native Regiments.

97. It would, it is believed, add to the efficiency of native regiments and much reduce the weight of the sepoy's baggage if some system could be introduced regimentally to obviate the necessity of each man cooking his own food: messes of caste men would not interfere with caste prejudices.

Cooking pots.

98. The cooking pots in use with European regiments might be improved. They are certainly strong and durable (great recommendations), lasting ordinarily four years, but they are both costly to maintain and unnecessarily heavy for use in the field, where a saving of transport is of importance. The primary cost of a set of cooking pots for a regiment is about Rs. 1,500, being of copper they require tinning twice a month, and this costs about 40 rupees or say nearly 500 rupees a year, for which sum a cleaner and much lighter set could be got for a whole regiment, from most hardware shops in England, replaceable every year, if necessary. The form of the present utensils might also be improved to allow of a greater surface exposure to fire, be made in nests, and of thick iron sheeting tinned. Such cooking

* NOTE BY SECRETARY.—The mule transport of the mountain batteries was still more extensively employed.

pots would last a campaign and cost less than the establishment now necessary in the field simply to tin those in use. Two mules (or one camel) are allowed for their conveyance per company, the weight being about 300 lbs. The English articles would weigh less than half, and half the carriage would be saved; it is believed the camp kettles of a Company of Infantry at home weigh 136 lbs. only.

Indian Tents, excessive weight of.

99. The Camp equipage of the army is of a prohibitive weight for use except on ordinary marches, or in a country where transport can be both largely and easily procured. Long experience has doubtless proved the necessity and led to the adoption of the present tents as protection from the excessive heat of *this country*, but for service *out of India* they may be said to be practically useless, as transport could not possibly be provided for them. Sportsmen, who expose themselves during the hottest season of the year, have discovered that tents, however thick, do not exclude heat; that the actual heat must be borne, and that the *shade* of the tent is all that can be utilized to moderate it; close the walls and the heat becomes unbearable, raise the walls and the air circulates and the hot-house feeling of heat disappears, although perhaps by the thermometer it may be greater.

The hot season is generally the healthiest of the year. The great fatigue and exposure to which our troops were subjected during the mutiny proves that simple heat (under ordinary precautions) is but seldom the cause of serious sickness or death. A large single-poled tent with sides of double the size of English bell tents and made of the same materials, with an outer fly 5 feet from the inner, would perhaps be found a sufficiently effective protection from heat, cold, and rain, and would weigh about 160 lbs., a mule load. The pole could be of bamboo; ropes, pegs, &c., proportionately lighter than now used, and it is believed the cost would be less than half of the present Indian tents. The bell tents used in Abyssinia weighed 40 lbs., and those with inner fly 60 lbs. each.

Ambulances.

100. Our "sick carts" are very susceptible of improvement. Those in general use are much too heavy and are unnecessarily strong; however necessary strength may be, the reduction of weight is more necessary still, unless the line of route is to be constantly blocked by over-burdened cattle. The two-wheeled ambulance for general purposes of service, to be really useful, should not weigh more than 7 to 8 cwt., and should be made for bullocks of from 12½ to 13 hands.

A four-wheeled ambulance is a great desideratum. The subject of ambulances has been under the consideration of the Government of India, and an improvement may shortly be introduced.

Doolies, &c.

101. For the carriage of sick, doolies are generally used and are, for all serious cases, the very best transport; but *six* men have to be employed for the carriage of *one* man. Cacolets for mules, if the weight with pad saddles could be brought down to about 100 lbs., would be most useful in the majority of cases.

A PERMANENT TRAIN ADVOCATED.

Necessity for permanent Transport Train.

102. If the organization of Army Departments during a time of peace is necessary to meet the exigencies of war, if the Rules and Regulations of the service in their daily application are to form the bases of experience for the field, if the machinery is to be one perfect whole ready for the immediate illustration of power, then the organization must extend to every branch of an Army and not stop short at the drill and discipline of its troops.

Considering the value and the importance of the work which a transport train has to perform,—that the force cannot move, cannot be fed and cannot fight without its efficient assistance,—the maintenance of a sufficient nucleus at all times is a paramount necessity; and it would appear positively cheaper to do this during long years of peace than enter on a campaign totally unprepared. Money freely spent by the State and the devotion of its servants may again, as it has in the past, do much; but there must be a needless expenditure of both, in the absence of the means for the practical application of duties which can only be acquired by experience.

Experience of past campaigns.

103. The Bombay Army has thrice within the last twenty years been engaged on service beyond sea and probabilities point to another expedition. What does our own experience teach us? That in Persia, after much loss of time, after great labour and at a very heavy expenditure of money, we collected a transport at Bushire, an advance of a few miles was made, a battle fought and the force returned to its former camp; although months had elapsed we were not prepared for a forward movement, and before our arrangements were completed peace was proclaimed. In Abyssinia the necessity for an efficient nucleus was again established in a marked degree; the Director in his report stated that "*amongst the muleteers and muccadums a few were collected who had belonged to the field column carriage under the Commissariat. The rest were the offscouring of the Bombay streets, consisting of broken-down Native tradesmen, discharged Europeans and Eurasians from other departments, and the class termed 'loafer.'*"

His Excellency the Commander-in-Chief, Lord Napier, when inspecting this heterogenous mass, "*expressed himself as under the gravest apprehensions in regard to the stability of a Transport formed upon such a nucleus.*"

Waste of money from want of a nucleus.

104. Enormous sums of money were spent and much valuable time lost before anything like organization could be established, or the materials moulded into working order, and much greater delay would have occurred had it not been for the Punjab train and also the Regimental Transport brought into the field by the Punjab corps. It is hardly an exaggeration to state that half the expense would have been saved had a system of Army Transport existed and been maintained in time of peace and forwarded to Zoolla to form the nucleus of the field transport.

Indian system useless on Foreign service.

105. In India the Commissariat can deal with large masses of transport with great ease; the contract system and native agency system are understood and have been successfully practised for centuries; out of India, in a foreign country, with every condition changed, these systems would fall to pieces ten miles from the base of operations.

106. In India the difficulties of transport are not known. We take the field with the tents, equipments, and impedimenta of a royal gala; we have before now paved the way of an army with the bones of its transport animals, and tens of thousands have been got to replace them. Out of India no such lax system can hold together.

Indian system wasteful.

107. For foreign service an organized system becomes a necessity. Whatever the nature of the operations, of the country and of its resources, the first or main line of transport, organized as efficiently as possible, *must* be the property of Government, a part of the force itself.

Organized system necessary for Foreign service.

THE IMPROVEMENT OF THE FIELD COLUMN CARRIAGE.

108. The field column carriage is in charge of Commissariat officers at all stations who have to attend to the heavy duties connected with its pay, equipment, and in fact with all matters of interior economy, in addition to their own legitimate duties, and the consequence is too great an amount of work for proper supervision.

The field column carriage a Commissariat charge.

109. An additional Commissariat Officer should be appointed to each large centre, for the exclusive charge of the transport, assisted by intelligent inspectors on more adequate pay than the present incumbents receive.

Additional officers required.

110. The field column carriage of the smaller stations should be massed at the larger: the extension of railways may have rendered this practicable; it should consist of both pack and wheeled transport, not exclusively of pack animals as now.

The Transport to be at large centres.

111. The position of the muleteers and of all other followers, such as drivers and dooley-bearers, should be improved. They should be enrolled into a corps similar to that of the store and tent lascars; their work is hard and pay low. Batta when marching and an annual clothing allowance are granted to artillery bullock drivers; these should be extended to all followers: the men would then be decently clothed and in some kind of distinctive uniform—a real want.

Position of followers to be improved.

112. If it is necessary to keep up field column carriage it should be efficient and worth the money it costs—efficient not only for a given service but for all service in and out of India. To allow of this the nucleus must be thoroughly efficient and consist of intelligent and trustworthy men.

Field column carriage to be fit for general service.

113. After improving the *personnel* we might improve the *matériel* of the field column carriage, which, as a nucleus for service, should consist mainly of pack mules and wagons and carts for mule and bullock draught.

Constitution of field column carriage.

114. Camels for service in India can always be hired,—not so mules; they are cheap to maintain, easy to feed, and easy of management, but on the other hand they are delicate, soon getting out of condition in unsuitable localities and, above all, are most difficult to ship beyond sea.

Value of camels.

115. Mules, for general purposes, may be considered the best of all transport animals; they can be worked in any country and under almost every condition of service, are hardy and long-lived. To prove the economical value of mules it need only be stated that some of the Persian mules employed in the expedition of 1856-57 served also in Abyssinia, and that a number of these animals are still at work, although a period of twenty-two years has elapsed since they were drafted into the service. In the expedition to Pekin in 1860-61 mules sent from Bombay were found to be the best and most serviceable transport with the force.

Value of mules.

116. A heavy demand for transport exists at all the large stations; it cannot be met by substituting camels for mules, whereas mules and bullocks can both be utilized in times of peace in pack and in draught, and a twofold advantage gained by their retention.

Draught cattle generally useful.

117. It may be taken for granted that, in and out of India, wheeled transport can generally be used,—in India almost everywhere; even in Abyssinia carts were used. The Director reported as follows:—

Wheeled transport for service.

"The first passage of carts up the Senaffee Ghaut, consisting of a convoy of eighty carts in sole charge of a native military inspector, was so successful that every effort was made to increase this kind of carriage."

It has been said that "where field artillery can go, wheeled transport can follow"; this may not always be the case, but, except in a very hilly country, wheeled Transport would be nearly three times more economical than pack animals, camels alone excepted.

Of the great value and general utility of wheeled transport there can be no question. It has been advocated by the majority of general officers from Sir Hope Grant to Sir Garnet Wolseley, and its value has been tested in several campaigns.

118. By introducing wagons of light yet durable construction as a part of the field column carriage for both mule and bullock draught, we should add largely and economically to our means of army transport, and organize in times of peace a service which would be of great value on an emergency. There should be no additional expense, as they could be utilized daily for the ordinary commissariat transport duties of every station in the presidency. The Commissariat at present largely employ carts, and work both field column carriage mules and gun-bullocks at a considerable saving of expense. All that is required is an improved wagon, good serviceable harness, and a recognized system to maintain the whole in a perfect state of efficiency, and while securing the performance of remunerative work during peace we should possess an important auxiliary during war.

Employment for wheeled carriage.

119. Pack mules carry a load of 160 lbs., which is as much as ordinary-sized mules should carry, the equipments making the total load over 200 lbs., whereas two mules in a light wagon of about 8 or 9 cwt. would draw 800 to 1,000 lbs., according to the nature of the country and state of the roads;

Pack contrasted with wheeled transport.

four mules about 1,600 to 1,800 lbs. in a larger wagon of, say, about 12 cwt, and labour and loss of time from loading and unloading would be minimized. Therefore two mules in draught do the work of five in pack. Bullocks also would be most serviceable in such wagons, would draught per pair as heavy if not heavier loads, and would moreover require no harness.

It has been found from experience that two-wheeled carts are not so useful as wagons in a hilly country, and they certainly could not be economically used for mule draught, but with pole and yoke would be most suitable for bullocks; perhaps the common Bombay hackery is as good as anything in this way for bullocks.

The Maltese cart.

120. The Maltese cart weighs 5½ cwt., is suitable for one mule with a load of 500 lbs. on a good road, but each mule would require a driver. If fitted with a pole and yoke, it could be used with a pair of bullocks.

Commissariat trolly.

121. The Commissariat trolly weighs 13 cwt. and is good for cantonment work on first-class roads, but it is heavy draught, from the smallness of its wheels.

Improved wagon a desideratum.

122. An approved four-wheeled wagon is a great desideratum and would tend to economy. It should be on springs, which prevent unnecessary wear and tear and allow lighter materials being used, but experience at Aldershot must have led to the adoption of the best wagon for general purposes. A light wagon for two mules, of about 8 cwt. and a heavier and larger wagon for four mules, of about 11 to 12 cwt., should be obtained from England, of the approved pattern, for trial in this country, and with a good muster for guidance it is probable they could be made cheaper here than in England.

Harness to be good.

123. The harness for the mule wagons should be strong and well made. Condemned artillery harness is generally used for cantonment work with the Commissariat carriages.

Ordnance and Gun Carriage Factory to supply Wheeled Transport.

124. The Ordnance and the Gun Carriage Factory, to which every detail of the business is familiar, should supply not only all the ambulances but also the transport train carts and wagons, being allowed such an Artificers' Establishment as may hereafter be found necessary for the purpose of maintaining the whole of this important branch of Army transport in a thoroughly efficient state for active service.

Advantages of efficient field column carriage.

125. The establishment of the field column carriage should be fixed, its complement revised, its organisation improved. We should then possess a valuable nucleus susceptible of ready expansion, thoroughly reliable and trustworthy from its association with the Troops and its dependence upon the State; we should have the sure means of meeting the sudden and urgent calls that must arise for its use in situations and in times when a contract establishment would be useless; we should be able to mobilize a small force without delay and yet thoroughly well equipped; and we should command the means of forming and organizing reliably and efficiently, at a saving of both time and money, a larger transport train to meet the first wants and the first movements (always the most difficult and the most important) of an army in the field.

APPENDIX LV.

Memorandum on Land Transport by Colonel A. W. Lucas, C.B., Bombay Staff Corps.

1. Having observed the great difficulties which have again been experienced in securing at very short notice efficient land transport for the present campaign in Afghanistan, which difficulties have occurred in all our former wars, often tending for some months after the commencement of hostilities to delay our operations, at times even imperilling the safety of our troops for want of supplies, munitions of war, &c., &c., I have considered whether it would be possible to form the nucleus of an efficient transport train, capable of immediate expansion to field strength to take the place of the field column carriage of animals, as per margin, now kept up in India, and at a comparatively small increase of expense; the existing establishment, though very useful in time of peace, being of little value for active service.

Elephants.	
Camels, sandee or riding.	
Camels, baggage.	
Mules, draught.	
Do pack.	
Bullocks, draught.	

2. The organization I now speak of is specially meant to apply to the Bombay Presidency, with which I have been connected for so many years; it would, however, be applicable to the other Presidencies, and with certain modifications, be suitable for the British Army.

3. Before entering on the details of the system I desire to enunciate, it is necessary to touch on one or two points which materially affect the question.

4. First.—Whether the transport train should be under the Quartermaster-General or the Commissary-General? It is certain that the department which it is desirable to place it under in the field should have the control as well in times of peace.

5. From what I have observed during my service, I am convinced that the supply and transport should be under one head, thus doing away with divided responsibility, so injurious and inconvenient in the field.

6. The provisioning of both men and animals (a most important point in regard to efficiency) must rest with the Department of Supply, for economy of labour and convenience of feeding.

7. The head of the Supply Department should have a voice in the selection of the sites the Transport and Cattle Depots are placed in the field, to allow of the full benefit of the resources of the country to be availed of; and, further, that officer would best know the descriptions of all supplies, &c., most needed to be sent to the front.

8. When the heads of the several departments separately press for carriage all are equally clamorous; and the Transport Train Director, although he sends on all stores he possibly can, those most urgently needed often remain behind.

9. Under these circumstances, I am convinced that the transport train should be under the Commissary-General.

10. Second.—The organization I propose utilizes the services of many officers and men serving under the immediate orders of the Commander-in-Chief; and, as there are also several other reasons in its favour, I propose that a change be made in the Commissariat Department by the transfer of its control from the Governors of the several Presidencies to that of the Commanders-in-Chief.

11. The Indian Commissariat is essentially a Military Department, and has, I am glad to say, always been found efficient both in quarters and in the field. In former years, when the proportion of European troops was so much smaller in comparison with natives—the latter requiring in the field few supplies and much less carriage—the Department being under the Governor did not tend to inconvenience. Now, however, when so large a proportion of British troops have to be provided for, the general officer commanding in the field, immediately a campaign commences, exercises the control of the Department of Supply as he does of the Transport; and I submit that he assumes this additional and onerous duty at a great disadvantage, never in times of peace having any control or working knowledge of the Commissariat. The proposed change gives this control at all times to the Commander-in-Chief, and thus to the Divisional and Brigade Commanders under him; and on proceeding on field service the general officer commanding would be well acquainted with the manner of working both supply and transport, instead of, as at present, when pressed by other duties in the field, having to exercise the control without previous experience.

12. OFFICERS.—I now proceed to the organization. There should be a Transport Train Officer (Field Officer or Captain) nominated to command the divisional portion of the train at the head quarters of each of the three divisions of the army, to have the entire control and working of the men, artificers, cattle, carriage, equipments, and dead stock, in fact to exercise all the duties of a Commanding Officer.

13. In drilling and instructing the men he would have to teach Europeans and different castes of natives to work well together.

14. These officers' appointments to be of five years' tenure: they might be granted a staff salary of rupees three hundred per month in times of peace; in war they should be allowed the pay granted for Divisional Transport Train Officers.

15. To assist the above, two of the Regimental Transport Subalterns (of whom hereafter) should be attached to each division of the train: a three months' tour of duty each annually would provide the number throughout the year. The tour of duty should be for separate portions of the year, and this would be the only time they would be detached from regimental duty.

16. I propose that a Regimental Transport Officer be appointed from the subalterns of each regiment serving in the presidency; he should, prior to nomination, qualify for the appointment by a few months' service with the train, say at the head quarters of the division his regiment is serving in, to learn how to select animals for purchase, their age, soundness, general fitness, treatment when sick, feeding, loading, weight of loads to be carried, and all particulars in regard to equipments and dead stock; in fact, attain a thorough knowledge of his duties as a Transport Train Officer. These officers, in addition to passing the lingual test in the higher standard, should be encouraged to pass colloquial examinations in the different languages of the men employed in the train.

17. The duties as Regimental Transport Officer in quarters would be in addition to their regimental duty.

18. When the strength of the transport train animals admits of it, one of the above officers might be placed in charge thereof at the station at which his regiment is serving: he would perform regimental duty as well.

19. On a regiment changing its station, full regimental carriage to be made over to the transport subaltern, as also when it proceeds on field service: this officer would have the whole management thereof during such periods.

20 A small staff allowance of rupees sixty per month for transport subaltern officers of British regiments, and of rupees thirty for those of native regiments, should be drawn by such officers whenever employed in charge of their regimental transport in times of peace. During their tour of duty with the divisional head quarters of the train, or in charge of the station train duties, they should all draw at the rate of rupees sixty per month.

21. On a campaign they should have a superior allowance. The stipends are small, but, as it would be known that qualifications in this branch would be a claim for employment on formation of a Field Service Transport Train, I think it would be sufficient to secure the services of efficient officers.

22. The appointment of these officers should also be limited to five years. Any officer in addition to the above, desiring to qualify in the transport train branch for employment for field service, might be allowed to undergo the course.

23. All officers qualifying as above to have T. T. placed after their names in the Army List, to show they are duly fitted for employ in that branch of the service.

24. A proportion of the men of each British regiment might, at the option of their Commanding Officers, be allowed to attend a course of instruction in transport duties at the Divisional Head Quarters of the Train.

25. With this organization the three Sub-Assistant Commissary-Generals, third class, might be done away with; the staff pay so saved would go towards the staff salaries now recommended.

26. To provide for the warrant and non-commissioned officers and privates of the Train, I propose that every regiment, British and native (excepting only the Native Irregular Cavalry, which provide their own carriage), should furnish ten men per regiment to the Transport Train, their places not to be filled up in their regiments.

27. On a regiment marching or proceeding on field service, the ten men received from the regiment would form a portion of the train supplied for regimental carriage, and they should be transferred to the station the regiment proceeds to.

28. The system recommended would give each regiment, troop of artillery, &c., its own carriage under regimental charge on the march, and on field service, carriage for supplies, munitions of war, engineer, park, siege trains, hospital stores, &c., &c., would be furnished by the General Transport Train through the Commissariat.

29. In regard to the men from native regiments, in place of transfers from the corps, Regimental Commanding Officers should allow their regiments to fall short of strength to the extent of ten men per regiment, suitable men to that number to be enlisted by Transport Train Officers; this, I urge, is essential, not only for efficiency, but to ensure the speedy expansion of the train.

30. The men should be enlisted from the different provinces from which we draw our cattle, men who have been brought up with the description of animals they would be required to serve with, *i. e.*, for draught bullocks from Gujerat, Kattywar, Oomerkote, Rajpootana, and Mysore; camels from Bickaneer, Rajpootana, Upper Sinde, Beloochistan and the North-West Provinces, and from the Rewarees or camel breeders in Bengal.

31. Camels from the Hills, Upper Sinde, Cabool, &c., should, as far as possible, be selected; they are hardier, and are the only description of camel which can work in the cold of the hills and on rocky ground; they also answer well on the plains in the heat, whereas the camels bred in the plains are utterly worthless in the cold or mountain passes, and die off at once when so exposed; the Cabool or Hill camels can only, however, be obtained to small extent.

32. Care in the selection of the required men would furnish a most valuable body of soldiers who would thoroughly understand the management of the cattle they have to serve with, and be well drilled.

33. When immediate increase of the Train for field service became necessary this system would enable the Officer Commanding to put his hands at once on a large number of qualified cattle attendants, which these men could secure amongst their own people and villages: additional animals would also to a great extent be obtainable in like manner.

34. The attendants of the present establishment of field column carriage are so badly paid in times of peace, that efficient and effective men cannot be obtained, and a number of broken-down and worn-out men have in consequence to be employed, most of whom are not fit for promotion, and only perform their ordinary duties from being so closely supervised by their officers; all such should be replaced by men enlisted as above.

35. Only the few really efficient and smart men to be retained if found fit for enlistment.

36. The Train to have the regulated proportion of warrant and non-commissioned officers selected from the body of men procured as I suggest. These would replace the present establishment of muccadums and inspectors.

37. A proportion of sergeants should take over the Inspectors' duties of the Transport Branch of the Commissariat. From these alterations a portion of the staff pay on the new organization would be met.

38. The drill masters and drill establishment of the train to be appointed from the men drawn from British regiments.

39. The native cattle clerks now serving with the Commissariat to be transferred to the Train on the stipends they at present draw for performance of necessary office work.

40. Service with this Train should be made as attractive as possible, hence the pay of the men should be liberal: the staff pay of the European warrant and non-commissioned grades should be the same as provided in the Regulations; British privates should receive a slight addition to their regimental pay. In regard to natives, their pay should be slightly in excess of the pay of a Native Infantry regiment.

41. It must be borne in mind, that the men to be employed in this Train would be picked men, all fit to form the warrant and non-commissioned grades, on the Land Transport Train being increased to field strength; Europeans and natives trained to work together. The duties would be very heavy and responsible; and to ensure efficiency, the men require to be liberally treated.

42. The present proportion of field column carriage would suffice to form the nucleus of the Train, but it is of course desirable that there should be as many animals present as is possible, having due regard to expenditure; therefore at stations, where additional carriage is hired, as demands arise, an increase of train animals to meet such expected demands might be granted.

43. Under present arrangements the shoeing of animals, making up and repair of equipments, carriage, dead stock, &c., &c., are all performed by contract from the local markets; the consequence is on preparing for field service the necessary staff of artificers are taken up at high rates, and, being perfectly ignorant of the duties to be performed, great inconvenience and loss are the result.

44. The staff of artificers required to perform all such duties should be enlisted; the contract system is of course somewhat cheaper, but the work carried out as recommended would be of much better quality, and on the expansion of the Train for active service the arrangement would prove to be economical

45. With respect to the field column elephants, beyond their transfer to the Train, I should not recommend change: elephant mahouts (attendants) are a peculiar class, and the small number of men required can always be secured; it is, too, a very popular service with the natives.

46. I regret, in absence of data, I am unable to give the strength of the present field column carriage kept up in the Bombay Presidency, and thus the difference of cost in the change of organization.

47. I am, however, of opinion that the establishment of men to be drawn from regiments without increase of expenditure would quite cover the increased pay of the remainder of the men; thus in times of peace the only increased cost would be a portion of the staff salaries to commissioned, warrant and non-commissioned officers, and the small excess of expenditure in having artificers in place of the Train work being performed by contractors. In fact, the increased expenditure, compared with the great gain in efficiency, would be inappreciable.

110 British soldiers. 300 Native ditto.

48. It is true regimental commanding officers would have ten men less per regiment in garrison, but as these would, on the line of march and in the field, serve with the regimental transport, the whole of the men of which would be properly drilled, armed, and effective soldiers, the regimental baggage escorts in the field would be greatly reduced in strength: thus they would actually have a larger number of fighting-men in the ranks.

49. The men might be armed with the regulation breech-loading short rifle, to be slung over the back, and a short sword in frog belt.

50. There should be a suitable uniform for the train: there should also be a regulated supply of warm clothing provided for, approved musters of which should be retained at the head quarters of each division of the Train; and whenever active service to a cold climate is imminent, the necessary supply, if not obtainable at once in the local market, should be applied for from England by telegram.

51. Under present circumstances some months or so are lost on field organization in deciding on the description of warm clothing to be supplied, and at last when fixed it has to be so hurriedly made up in the local markets as to be of little use.

52. The followers are not trained in the packing and carrying of such, consequently a great portion is lost before it is required to be worn. All this in trained men would be obviated, and a great amount of suffering would be saved.

53. The statements annexed, A, B, C, D, each show the full strength for active service of a division of mule wheeled transport, ditto of bullocks, ditto of baggage camels, and of pack mules.

54. The field service train to be completed to 20 divisions of 2,000 animals each; in case of war to consist of 40,000 animals, either in equal proportions of all classes of carriage or of draught mules, or bullocks, or pack mules or camels, as the country in which operations have to be carried out may render desirable.

55. A portion of draught carriage in any campaign, however difficult the country, is advisable, as when encamped it is not only economical, but saves a great deal of labour.

56. It is essential that all officers and the men to be employed in the Transport Train should study the treatment and diseases of the different kinds of cattle, as in almost all cases they alone on service can treat such. When it is remembered that very often the Land Transport animals are scattered from the base to the advance of our operations on the march, and at small depôts extending to some 300 or 400 miles, it is apparent that a sufficient staff of veterinary surgeons could not be secured or maintained for treatment of sick animals.

57. The above organization would give a very effective nucleus for a Land Transport Train for war, if retained in an efficient state. Officers to complete the war establishment could be selected from those qualified in Transport Train duties and from regimental transport subalterns, the British men from volunteers from regiments not proceeding on service. Natives would be secured in the manner proposed; these last could be enlisted for short service of two or three years, and to receive a small gratuity on discharge at the termination of the campaign.

58. The officers, warrant and non-commissioned, being all thoroughly trained, could in very short space instruct the new men, and the train should immediately on formation work well and easily.

59. I have now given a sketch of what would change the present ordinary carriage establishment to an organization fitted for immediate expansion whenever desired to a war Land Transport Train.

60. In conclusion, I would now refer to the important subject of the terrible suffering of the wretched transport animals on a campaign; under the existing system, it is well known that in all our campaigns our route is lined with their carcases; they die by thousands; as they fall from overloading, fatigue and weakness, so they perish slowly from starvation, thirst or cold; their sufferings are beyond the conception of any who have not been eye-witnesses to the facts. Common humanity requires that as far as possible these evils should be remedied.

61. To show that this suffering to animals and very heavy loss to the State can be prevented, I beg to instance that among the few Government camels which served with the transport Rajpootana field division throughout the mutiny, although they carried heavier loads and were much harder worked than the other portion of the transport supplied under contract, the casualties were very few, and on return of the animals to cantonments all the Government camels were in first-rate condition.

62. The Egyptian camels which served in the Abyssinian war carried from five hundred to six hundred pounds each, and were constantly at work; but officers attached to the Commissariat were in charge of each convoy, the animals were carefully tended and were properly fed, and at the termination of the campaign all were in excellent order.

63. I am certain the present very heavy losses and the great suffering of the animals can be obviated by the required measures being adopted in times of peace to provide qualified attendants ready for service for war.

DUNMORE, NEAR TEIGNMOUTH, SOUTH DEVON., *12th February 1879.*

ALFRED W. LUCAS, COLONEL, C.B., *Bombay Staff Corps.*

WAR STRENGTH—A.

Division of Mule Wheeled Transport.

PARTICULARS	PER DIVISION.		Giving a carrying power of	REMARKS.
	No. of wagons.	No of horses and mules.		
			Lbs.	
Wagons of 4 mules each	200(a)	800	448,000	(a) Each conveying 2,240 lbs..
Spare mules	... ...	80	...	
Carts of 2 mules each	425(b)	850	361,250	(b) Each conveying 850 lbs.
Spare mules	... ...	85	...	
Light carts of 1 mule each	100(c)	100	50,000	(c) Each conveying 500 lbs.
Spare	... ...	10	...	
Riding mules for warrant and non-commissioned officers, inclusive of spare	... ...	75	...	
Total ...	725	2,000	859,250	Affords a carrying power of 383 tons 11 cwts. 3 qrs. 14 lbs., including spare animals.

War Strength—A—*continued.*

Establishment.

Commandant, Field Officer, or Captain	1	
Subalterns	2	
Veterinary Surgeon	1	The wagons and carts should be light; a few only for transport of very heavy Ordnance or Engineer Park stores being of heavy build.
Conductors	2	
Sub-Conductors	2	
Sergeants	20	
Corporals	40	
Drivers	1,050	A portion of the wagons and carts should be provided with springs.
Weighingmen	4	
Head Farrier	1	The harness,—200 sets of mules for wagons, 425 sets of mules for carts, with chains, straps, &c., for use when required for leaders, and 100 sets single harness.
Shoeing Smiths	10	
Head Smith	1	
Smiths	3	
Hammermen	4	
Bellows Boys	4	The harness to be of strong material, of the description used generally for Artillery mules; one-third of the harness to be fitted with breast straps.
Head Carpenter	1	
Carpenters	4	
Head Saddler or Leather Worker	1	
Assistant- do do.	5	
Puckallees, with bullocks and equipment	10	

Equipments, &c.

Brooms, Goa	160
Brushes	1,000
Buckets, watering, zinc or leather	500
Bridles, double, with bits, &c., complete	65
Currycombs	1,000
Dusters	2,000
Fringes, eye	2,000
Gram bags, leather	2,000
Hand rubbers	1,000
Heel ropes	4,000
Head chains	2,000
„ stalls	2,000
Jhools, cumbly	2,000
Mallets, wooden	80
Pegs, iron	6,000
Prickers	1,000
Paulins, prepared	800
Steelyards, weighing 250 lbs.	20
Saddles, riding, with girths, &c., complete	65
Watering bridles	2,000
Whips	1,050

War Strength—B.

Division of Bullock Transport.

Particulars.	Per Division.		Giving a carrying power of	Remarks.
	No. of carts.	No of bullocks.		
			Lbs.	
Carts with 4 bullocks each	250(*a*)	1,000	400,000	(*a*) Each conveying 1,600 lbs.
„ „ 2 „	409(*b*)	818	347,650	
Spare bullocks	...	182	...	(*b*) Each conveying 850 lbs.
Total	659	2,000	747,650	Affords a carrying power of 333 tons 15 cwts. 1 qr. 22 lbs., inclusive of spare animals.

Establishment.

Commandant, Field Officer, or Captain	1
Subalterns	2
Conductors	2
Sub-Conductors	2
Sergeants	20
Corporals	40
Drivers	1,000
Weighingmen	4
Nalbunds	10
Head Smith	1
Smiths	3
Hammermen	4
Bellows Boys	4
Head Carpenter	1
Carpenters	4
Puckallees, with bullocks and equipments	10
2nd Class Cattle Doctors	2

WAR STRENGTH—B—*continued.*

Equipments, &c.

Buckets, watering, leather or zinc	500
Brooms, Goa	160
Currycombs	1,000
Coorpas, for grass	50
Gunnypaut, feeding	2,000
Headstalls, leather, with chain	2,000
Hand rubbers, coir	1,000
Hatchets, English, for kurbee	200
Jhools, gunnypaut, lined with cumbly	2,000
Juttrasses	2,000
Line rope, coir	180
Mallets, iron	160
Paulins, prepared	700
Pegs, iron	2,000
Ropes, nose, cotton	2,000
„ driving	2,000
„ loading, coir	659
Steelyards, weighing 250 lbs. each	20
Whips, country	1,000

WAR STRENGTH—C.

Division of Pack Mules.

PARTICULARS	Per Division.	Giving a carrying power of	REMARKS.
		Lbs.	
Pack Mules	1,818(a)	363,600	(a) Each conveying 200 lbs.
Spare	182	...	
Total	2,000	363,600	Affording a carrying power of 162 tons 6 cwts. 1 qr. 20 lbs., inclusive of spare animals

Establishment.

Commandant, Field Officer, or Captain	1
Subalterns	2
Veterinary Surgeon	1
Conductors	2
Sub-Conductors	2
Sergeants	20
Corporals	40
Head Smith	1
Smiths	3
Hammermen	4
Bellows Boys	4
Head Carpenter	1
Carpenters	4
Drivers	1,000
Weighingmen	4
Head Farrier	1
Farriers	10
Puckallees, with bullocks and equipments	10

Equipments, &c.

Buckets, watering, zinc or leather	500
Brushes	1,000
Breechings, and breast straps	2,000
Bridles, watering	2 000
Brooms, Goa	160
Currycombs	1,000
Chains, heel	2,000
Cruppers	2,000
Girths, saddle, cotton web	4,000
Headstalls, leather, with chain	2,000
Mallets, iron	80
Nose bags, leather	2,000
Paulins prepared	200
Pickers, iron	2,000
Pegs, iron	4,000
Pads, saddle, pack	2,000
Ropes, loading, cotton	2,000
Rubbers, hand, coir	1,000
Reins, leading	2,000
Sulleetahs, gunnypaut	2,000
Saddles, pack, mule	2,000
Steelyards, weighing 250 lbs.	20

WAR STRENGTH—D.

Division of Pack Camels.

PARTICULARS.	Per DIVISION.	Giving a carrying power of	REMARKS.
		Lbs.	
Pack Camels, complete with equipments, suleetahs, loading ropes, &c, ...	1,818(a)	727,200	(a) Each conveying 400 lbs.
Spare	182	...	
Total ...	2,000	727,200	Affording a carrying power of 324 tons 12 cwts. 3 qrs. 12 lbs., inclusive of spare animals.
Establishment.			
Commandant, Field Officer, or Captain	1		
Subalterns	2		
Conductors	2		
Sub-Conductors...	2		
Sergeants	20		
Corporals	40		
Camelmen	1,000		
Camel Doctors, Native	2		
Head Smith	1		
Smiths	3		
Head Carpenter	1		
Carpenters	4		
Puckallees, with camels and equipments	10		
Weighmen	4		
Equipments, &c.			
Ballatungs, of cotton rope	2,000		
Brooms, Goa	160		
Chursas, leather	2,000		
Currycombs	1,000		
Doomchees	2,000		
Gorepunds	2,000		
Gunnypaut, feeding	2,000		
Headstalls, leather, with rope	2,000		
Jhools, gunnypaut	2,000		
Mallets, iron	160		
Nathies	2,000		
Nuckails	2,000		
Pegs, iron, small	2,000		
Paulins, prepared	200		
Ropes, loading, cotton	2,000		
Rubbers, hand, coir	1,000		
Shackles, leather, with chain	2,000		
Saddles	2,000		
Sulleetahs	2,000		
Steelyards, 250 lbs. each	20		

APPENDIX LVI.

Various papers on Army Transport.

Memorandum on Army Transport by Lieutenant-Colonel Low, 13th Bengal Lancers.

The subject of army transport must be one of the first considerations of any Army Organisation Committee, not only on account of its importance but for the pressing reason that at the present moment we have none.

The late campaign brought it forcibly home to all military officers that we were devoid of efficient transport, and it will have been well worth the cost of the war if one of its results is the establishment of a really working transport service.

Granted a working transport service, and the army will make short work of any war which it may be called on to engage in, simply for the reason that the power to strike, and strike rapidly, has been given to them; but it is equally sure that, unless this power is given to it, the army is reduced to being a defensive one, and assuredly we shall reap some day, in disaster in war, the result of our indifference in time of peace.

Having at various times made notes and written reports on this subject, I now send the following proposed plan of a system of army transport service in hopes of its being useful.

It is necessary that any transport service established in India should contain certain main principles. These are as follows:—

(1) that the expense to the State should be moderate in time of peace and not extravagant in time of war;

(2) that the system should be capable of expansion in time of war and reduction in time of peace;

(3) that it should admit of the animals being employed for ordinary purposes of commerce in times of peace, yet ready to take their places and serve the State in time of war.

Of these, the third is the most important, for while such systems as the regimental transport, or Government keeping up at all times efficient transport, are no doubt possible if expense is entirely disregarded, yet both these systems fail in the one essential point of enlisting the people of the country in our interests.

I hope however to show that a system is ready to our hands containing this essential point as well as the principles laid down—a system which could be brought into action at once, moderate in expense, and capable of rapid expansion or reduction.

The number of troops for which Government might think it desirable to keep up transport, if taken at about the number lately in the field, would probably be accepted as, as much as was necessary.

Engineers	2,800	placed in the margin.
Artillery		
British Cavalry	1,500	
British Infantry	7,000	
Native Cavalry	4,000	
Native Infantry	21,000	
	36,300	

I take these numbers to be, roughly, 36,300 men, and divided as

It is required therefore to organise a transport service which could put into the field and give power of movement to 36,300 men; and as no army is fit to act unless it can carry with it a certain amount of provisions, the required transport must also be prepared to carry 15 days' supply.

While the system I advocate is such that it will admit of the transport being expanded so as to move double these numbers, it would, I submit, be something quite new for the head of the army to be able to say to the Director of Transport "I am going to place 36,000 men on the frontier; carriage for them is to be ready in a fortnight."

I believe this can be realised.

I attach on separate sheets these papers:

Statement A—gives a calculation of the number of mules required;

Statement B—gives the cost of an efficient transport in time of war and in time of peace;

Statement C—gives the provinces and districts from which the animals are procurable.

Before proceeding further it may be well to observe that, though I have taken the mule only as the transport animal, I do so for the reason that it is the best-known, and the first line of transport should consist of mules, but I do not under-rate the value of ponies, camels and bullocks; and if the supply of mules or rather till the supply of mules meets the requirement, the next best animal should be brought under contract, resuming their places as the reserve, and to be only brought under contract on signs of war as soon as the supply of mules meets the demand.

My opinion is that in less than a year the whole of the first line of transport in mule carriage would easily be obtainable.

The second line of carriage should be wheeled carriage, and this is treated of further on.

Of the three attached statements I take statement C first, as it leads directly to the development of the proposed organisation.

In this statement I have spread the required number of animals over the whole of India, for though it is true Bengal could supply many more than the number allotted to it, yet an Indian transport ought to be widely spread—

1*st*.—Because we should have the power of rapidly concentrating a certain proportion at main points which are far apart, such as seaports and frontier routes.

2*nd*.—Because the policy of *Divide et impera* should not be forgotten.

The number required has been averaged over the main mule-breeding districts, for practical experience could alone say the numbers a district could provide, whereas in this case they vary so much in situation, soil and climate. But it is certain that mules will not be forthcoming in districts where they cannot be profitably employed in time of peace. It is equally certain that the larger number of districts, such as the majority of the Punjab districts, could, and actually do, employ treble and more; consequently the table of averages, though not pretending to be correct in single instances, is within the mark as a whole.

Having thus briefly noticed statement C, I come to the organization I would recommend.

I can best illustrate this by supposing I was engaged in organizing the transport. The districts would have all been numbered off in the transport books, and I will suppose I am visiting the Rawal Pindee or No. 20 district. The first village I enter might have perhaps fifteen mules, nine of which were over three and under fourteen years old. To the owners of these animals I would say—"Government will give you, through me, one rupee per month for each of these animals. Government does not want them now, and may never want them at all. Keep them therefore and use them as you have been accustomed to. All that Government ask is that you will agree to give the use of the mules in time of war. You must then bring them, with their saddles, &c., arranging amongst yourselves that at least one man should accompany every three mules. On Government calling for the mules, you will receive war rates of pay from that day till the animals are discharged; when they will revert to peace rates of one rupee per month. This present agreement to last twelve months, after which notice of three months on either side may end the bargain. The one proviso being, that when Government has called for the services of the mules, the notice cannot be given till the mules are discharged. Meanwhile the

mules must be branded with the district mark $\frac{R}{50}$, and here is Rs. 36, the first quarter's payment, in advance."

I omit here details, such as precautions to be taken to prevent Government from being cheated, the necessity of periodical inspections, &c., &c. I omit also showing, how easily such a system could, by arranging it in the contract, be made available for movements of troops in ordinary relief. My object here is only to trace the outlines of a system of transport combining the principles laid down at starting and suitable to the condition of the people. Its success must necessarily depend on its being acceptable to the people providing the animals, and on this point I have invariably found the owners of animals ready to jump at such a proposal, while I have found that all native gentlemen and those who have influence that I have been able to consult were agreed as to such a plan being eagerly accepted by the people at large.

The above is briefly the system I would recommend. It is simply to pay a small premium in time of peace to secure efficiency in time of war.

It is expansive, for, at short notice, the number of animals under contract could be increased to meet any possible requirements, and this could be done without exciting the public mind, while it is a plan capable of reduction at three months' notice to meet smaller requirements. It is also one which is thoroughly understood by the people and in keeping with their customs and traditions, and one to which they would readily agree and in which they might be expected to act honestly.

The process I have described would be going on all over the country by the transport officers, and it may, I think, be believed that such a transport service would be the result as India has never yet seen.

I now refer to statements A and B.

If the number of mules in the former are not understated, its object is attained. The calculation is based on the scale laid down in the late campaign, *viz.*, two maunds per mule, which is very much under what the commonest mule can carry, and I need hardly point out that with efficient transport such a hard-and-fast rule would not be required, for the measure of an animal's load should be apportioned to his condition and strength, but, for the purposes of this paper, the Kabul scale has been taken, and this gives a total of 70,000 animals as the required number.

In Statement B the cost of a permanent establishment is given. This is a necessary adjunct of any efficient transport. Officers and men should be drawn from the regular army and the cavalry branch of it, and they should be seconded *pro tem.*, their places being filled up, which would give thus trained men for the transport and render it capable of reduction at will.

There are many points in considering Statement B which require notice, such as the men needing only ponies which they should themselves provide, their arms, equipment, &c., all of which should be of the simplest description, and, throughout, *use*, not *show*, should be the object; but my object in this paper is, as I have said, to avoid details and only attempt to show that a transport system on comprehensive principles is ready to our hand.

The total monthly cost is given at Rs. 87,270 in time of peace and Rs. 8,57,270 in time of war.

I have taken one rupee per month as the premium to give in time of peace, as I believe it could not be done for less now; but it is obvious that if it was found—as it probably would be found if we had two years of peace—that it could be done for less, the premium would be reduced, and very possibly it might be found possible to fix yearly a war rate at a much lower figure than Rs. 12 per month per animal.

But, taking these figures as probabilities, it may be worth while to see what such a transport would cost in a series of years, throwing a war into the account.

Thus, if we suppose a period of four years in which there was war for four months, the cost would stand as below:—

	Rs.
Three years and eight months' peace, or 44 months × 87,270 ... ... =	37,29,880
Four months' war or 4 × 8,57,270 ... ... =	33,29,080
TOTAL	70,58,960

or, in round numbers, £ 700,000.

This can no doubt be compared with transport expenses in the late campaign.

The consideration of the second line of transport remains.

In the proposed system the mule is taken as the first line, with its reserves left in the country of ponies, camels, &c., which could be utilized in any prolonged strain; but the second line should be wheeled carriage. As a general rule, roads follow quickly on the advance of troops in any serious campaign; but there is no necessity for Government to keep up, or even to keep under contract, animals for this second line; the only requisite are the carts, and a certain number of these should be always kept ready at stations near the bases of supply, such as Multan and Rawal Pindee; if these carts were ready and the transport established and in working order as sketched, there would be no difficulty in hiring the necessary bullocks or ponies for the carts should occasion arise to use them. But a large number of carts are not procurable at short notice. The carts therefore should all be ready beforehand, and since they are not easily damaged and do not cost anything to keep, the cost is only the initial one of making them.

Carts would probably not be required for shipment with an expeditionary force sent by sea, so that they would be considered as requisites for wars on our frontier, and if 3,000 carts were built and stored at convenient points, there would be no difficulty in procuring the 12,000 head of cattle required for their draught, always supposing the first line of transport to be in working order and the country not already drained.

Looking at the subject in a commercial light, it would seem that it would pay over and over again, for it would reduce the period of war from weeks to days, from months to weeks; but whether or not this opinion is correct, until an efficient transport is raised, we are not secure, and every day's delay makes us less secure.

In fact a transport service has become a necessity, and even if it be necessary to retrench in otheer points to meet the necessary expenditure, it would be a thousand times better to do so and give the army an efficient transport service, for such a service would give power of movement to the army, and is worth more to it than a couple of extra divisions.

The advantages of the proposed system are seen at a glance. It is expansive. It is capable of reduction at short notice.

It is moderate in expense, considering the enormous gain of strength it gives.

It is a system by which Government knows to a fraction from year to year or from quarter to quarter what it is going to spend; for it will be observed that it does not contemplate large stores of perishable materials, but simply takes the animal used in daily commerce as he stands, with the saddle he has been accustomed to work in; and finally, it is a plan which is suitable to the conditions of the peasantry that supply the animal and likely to meet their ideas of right, and consequently has a fair chance of being a success.

If this paper contributes in any degree to secure so desirable an object, it will not be without its use.

R. C. LOW, *Lieut.-Col.*,
Commandant, 13th Bengal Lancers.

STATEMENT A.

Showing number of mules required for an army of 36,000 men with fifteen days' supply of food.

		Mules.
7,000 British Infantry, required		15,435
1,500 British Cavalry, „		6,036
2,800 Artillery and Engrs. „		11,267
4,000 Native Cavalry „		9,900
21,000 Native Infantry „		26,334
	TOTAL	68,972
	Spare	1,028
		70,000
Abstract—		
For carriage of troops		20,653
Ditto 15 days' food		44,810
Spare animals		4,537
		70,000

The details from which above is taken are below. These calculations do not profess to be exact, or to show more than that the number given is ample. They will, however, be found to be approximately correct.

The number of mules required for 1,000 British Infantry with carriage for fifteen days' food is 2,205, as follows:—

	Mules.	
For Carriage of kits	350	
Tentage	90	
Hospital	15	
Guard tents	3	
Cooking utensils	14	
Tools	20	
Medical stores	4	
Arms of sick	10	
Officers and men	40	
Ammunition	200	
Armourers	10	
Quartermaster's stores	15	
Tentage and baggage for followers and kahars, say, 1,000 men	82	
		853
Food—15 days' supply for 1,000 men and 1,000 followers, about 950 mds.	475	
15 days' supply for 853 + 475 mules=1,328, at 3 seers	747	
		1,222
Spare animals		130
TOTAL		2,205

The number of mules required in 1,000 British Cavalry with carriage for 15 days' supply is 4,024, as follows:—

	Mules.
As for British Infantry	2,205
Additional—	
Tentage and baggage for 500 syces and food for them for 15 days	135
Food for 1,000 horses for 15 days	750
Food for 500 ponies	180
Food for additional 1,159 mules	650
TOTAL	3,920

The number of mules required for 1,000 Artillery is, as for Cavalry, 4,024.

One thousand Native Cavalry require 2,475, as follows :—

		Mules.	
As for two regiments of 500 each.	Officers and men	80	
	Hospital ...	20	
	Quartermaster's stores	80	
	Horse hospital		
	Forge ...		
	Ammunition	100	
			260
Food—15 days' supply for 1,000 horses		750	
500 ponies		180	
1,000 men		375	
500 grass-cutters			
100 followers			
400 kahars			
1,665 mules		830	
			2,135
	TOTAL		2,475

One thousand Native Infantry require—

	Mules.
Officers and men ...	80
Hospital	20
Quartermaster's stores	40
Men's tentage, followers and kahars	80
Tools	10
Ammunition	200
Food for 15 days for all	285
Spare	80
Food for 815 mules for 15 days	459
TOTAL	1,254

Carriage for animals' food has not been allowed in the cases of animals carrying food for others, as unloaded animals would not be taken on but sent back to bring up more supplies.

STATEMENT B.

Cost of transport organisation in time of peace.

PERMANENT STAFF—

	Rs.
1 Director of Transport with staff in addition to pay of rank	1,000
BENGAL—	
2 Superintendents with staff of Rs. 500	1,000
2 Assistants with staff of Rs. 200	400
2 Assistants with staff of Rs. 150	300
10 Native officers on Rs. 100 rising to Rs. 200 by service, say 10 at Rs. 150	1,500
5 Sowars per district at Rs. 20 with grass-cutters' ponies in army— 5×40×20	4,000
20 Non-Commissioned officers at Rs. 25, rising to Rs. 30, say 20 at Rs. 28	560
3 Officers with Rs. 150 each	450
TOTAL	9,210

BOMBAY—

	Rs.	
1 Superintendent with staff	500	
1 Assistant	200	
1 Ditto	150	
5 Native officers at Rs. 150	750	
10 Non-Commissioned officers at Rs. 28	280	
100 Sowars at Rs. 20	2,000	
1 Officer	150	
		4,030

MADRAS—

As Bombay	4,030
Premium to owners of 70,000 animals, Re. 1 per month	70,000
TOTAL	87,270
In time of war permanent staff	17,270
War rates, at Rs. 12 per animal	8,40,000
TOTAL	8,57,270

STATEMENT C.

The total number of animals required is 70,000 mules. Of these, speaking roughly,—

35,000 might be taken by Bengal.
17,500 ditto ditto Bombay.
17,500 ditto ditto Madras.

The number required from Bengal should be run over as large an area as possible. The chief mule-breeding districts lie north and west of Allahabad. Those near the mountains would give more, those in

the plains less, than the numbers allotted, but calculating by averages the number would be obtained as follows:—

			Mules.
Oudh			750
Rohilcund			2,000
North-Western Provinces—			
Allahabad	Muttra		
Jhansi	Meerut		
Cawnpore	Saharunpore		
Furruckabad	Bijnore	13 districts at 750 each.	9,750
Etawah	Delhi		
Allygurh	Kurnal		
Agra			
Punjab—			
Umballa	Mooltan		
Loodiana	Dera Gazi		
Hoosbiarpore	Dera Ismail		
Jullunder	Bunnoo		
Ferozepore	Jhelum	20 districts at 1,125 each.	27,500
Sealkote	Shahpur		
Goojerat	Hazara		
Lahore	Kohat		
Montgomery	Peshawar		
Umritsur	Rawalpindi		
		Total ...	35,000

Memorandum by Lieutenant-Colonel G. Nicholetts, *Commandant, 29th (or 2nd Biluch) Regiment, Bombay Native Infantry, on the formation of a transport train, called for by the Quarter Master General of the Army in letter No. 990 F.C. of the 26th March 1879.*

Collection of carriage.

No Government could afford in time of peace to keep up an amount of carriage sufficient for such a force as is now operating in Afghanistan; but the difficulties attending the collection and management of carriage would be much reduced if the resources of the country in that respect were more accurately known.

It would not be difficult to register the names of all owners of camels, carts, and mules in a district, and the number of each which the owners might be expected to furnish if called upon. These registers might be periodically revised by the civil officers; and after each revision, returns might be made to General Officers commanding districts of the amount of carriage available within their commands, and a general compilation of these separate returns might be made in the Quarter Master General or Commissary General's office. A skeleton map of the country, with each civil district marked on it, and the available carriage of each district entered, would then show at a glance whence carriage could be most conveniently drawn, and to what extent; and the civil officers, when applied to, would at once know from this register what individuals to call upon.

The owners would gain by this, as the pressure might be more equally distributed than it is now; and as all their names and possessions would be registered, they would find it very little use trying to evade any call made on them by running away and taking their animals with them, as they often do at present.

It would, I believe, be very beneficial to Government, and cause much less hardship to individuals, if the system of contract was had recourse to more generally than it is now, more particularly with regard to convoys.

To mention one advantage only. When carriage is got by requisition from civil authorities, a great deal of it belongs to men owning perhaps two or three animals only. When any, or perhaps all, of these die early in a campaign the loss to the owner is great, and the pay that he has received does not nearly cover it. This has been the case in many instances to my knowledge in the present campaign; and it is difficult to see how in such instances compensation can be refused.

On the other hand, if the contract system is adopted, the pay given at present rates to the contractor for large numbers of animals would enable him to take this risk upon himself; and it would be his interest to see that every possible care was taken to reduce mortality.

Organization of carriage.

As soon as carriage is collected, the question of organization arises; and for this purpose it may be divided into three heads—

(1) Regimental carriage;
(2) Departmental;
(3) Supply convoys, &c.;

and the principles to be kept in view in organizing a transport corps would appear to be, that it should be such as would ensure the carriage being—

(1) always adequate to the wants of the force;
(2) always ready for movement;
(3) always in the best possible condition.

Director of transport.

The first requisite in an organization would seem to be a Director of Transport, whose duty it would be to supervise all the transport officers under him, to keep the component parts of the force adequately supplied with carriage, to have a sufficient reserve in hand for the supply of deficiencies, to purchase animals on account of Government if necessary, and to arrange for reinforcements from the rear—in short, to keep himself at all times perfectly acquainted with the actual and probable requirements of the force, and to give his earnest attention to the production of the means by which those requirements may be met as soon as they arise.

The real requisite would appear to be transport officers for brigades, assisted by Native non-commissioned officers and soldiers drawn from regiments not on field service, and selected for their ability to keep accounts and, if possible, for some acquaintance with the nature of the animals they would have to deal with.

Transport officers of brigade.

The brigade transport officer would have charge of the departmental carriage of his brigade, and would have in his hands the payment of all carriage, departmental and regimental.

Non-commissioned officers and men of transport corps.

The non-commissioned officers and soldiers would be told off to all departmental carriage and, if necessary, to that of European corps and batteries, in a proportion of about one non-commissioned officer and one soldier to 100 camels, or more if requisite.

These men would assist in keeping the camel accounts, and would see that the animals under their charge were properly fed and looked after by the camel-men,—points on which the men themselves cannot always be trusted, as many are too stingy to buy food when necessary; others are servants and not owners and are careless about other people's property, and others are only too glad to get rid of their camels in order to be discharged from a disagreeable service.

These officers would be on the lines of communication, each in charge of certain stations, and the carriage under their control would be organized in the same way under non-commissioned officers and soldiers. In case of convoys, these latter would always, as far as possible, accompany the divisions of carriage to which they were attached.

Transport officers of supply.

As a large number of European soldiers now pass in the Native languages, it might be possible for European regiments and artillery to look after their own carriage. But as this would involve a good deal of exposure, and a knowledge of language does not necessarily suppose a knowledge of natives, it would probably be better to organize it in the same way as departmental carriage, but to give it over to regimental charge in every respect except as to payment.

European regiments and artillery.

The carriage of Native regiments should be entirely handed over to them, except as to payment, which should be in the hands of the transport officer. This carriage requires no assistance from non-commissioned officers and men of the transport corps.

Native regiments.

The payment of carriage should be entirely in the hands of the transport officers for several reasons. The camels of a brigade are a pretty constant quantity, but the number with regiments is always varying. Transfers from one regiment to another, and from regiments to departments and back again, are continually happening. For instance, a force is ordered to move with 15 days' provisions per regiment. This at once necessitates the transfer of a number of camels which have hitherto been in some other charge. To take over regimentally all the accounts connected with these fresh camels would involve much work, and to transfer them all back again when the camels are given up would involve more; whereas when the owners of all carriage are in the transport officer's books, and he pays them all, temporary transfers produce no confusion, and cause no increase of paper work.

Payment of carriage of brigade.

Again, camel-men are sometimes very troublesome people to deal with; they are always changing their "itlanamas" with one another, and making mistakes about them. Now, when all payments are in the transport officer's hands, he knows the men and the state of their accounts, and mistakes are not likely to happen.

Before the transport was organised by the appointment of transport officers to brigades, as it is now, regiments had great trouble about the payment of camel-men. Camels were taken away from them and others sent in their places. Some of their owners had "itlanamas," some not; some acknowledged to having received pay, some denied it. Consequently, it was very difficult, and in some instances impossible, to settle the accounts.

Since the transport officers were appointed and have taken this into their own hands everything has gone smoothly; and it does not matter whether a certain number of camels are with one regiment or another, or with Commissariat or Ordnance. If the camels permanently leave the brigade, the transport officer enters the last payment in the "itlanamas" and strikes them off his books; and if any question arises about them afterwards, it is known where they came from, and the transport officer has their accounts; whereas at first, before the introduction of transport officers, it might be necessary to write to half a dozen regiments before the necessary information could be got.

Summary.

To summarise the above, it is proposed—

1st, that the available carriage in every collectorate in India should be registered and periodical returns made of it;

Of transport officers of brigade and of communications.

2nd, that, on the breaking out of war, a transport corps should be formed of director of transport and of native non-commissioned officers and soldiers;

3rd, that the director of transport should give his time and attention chiefly to the keeping up the supply of carriage for the force;

4th, that a transport officer should be appointed to each brigade to take charge of the departmental carriage and to keep the accounts of the whole carriage of the brigade, regimental as well as departmental;

5th, that the carriage of European troops should be handed over to charge of regiments and batteries, but should be furnished with non-commissioned officers and men from the transport corps and paid by the transport officer;

6th, that the carriage of Native troops should be in regimental charge in all respects except as to payment;

7th, that departmental carriage should be entirely under charge of the transport officer, and supervised by non-commissioned officers and men of the transport corps;

8th, that the carriage of "supply" should be organized in the same way and be under the control of transport officers appointed to the different stations on line of communication.

Clothing and food of camels.

In such a country as Afghanistan, where the carriage of an army must necessarily consist for the most part of camels, and where extreme cold is at times endured, where the grazing is scanty and for the most part unsuitable for the animals brought from India, it is indispensable that the utmost attention should be paid to their clothing and food.

No camel should be allowed to come above the passes in cold weather without ample warm clothing, which should be made up and served out by Government; and there should be no cut-and-dried rules about food.

I believe there is a rule in the Transport Regulations that if camels get less than a certain number of hours' grazing per day, they are to have food given them, but not otherwise.

This test is a most fallacious one; for in one case camels may get on their ground at once, and find food plentiful enough for a good meal, whereas in another case they may be wandering about for the same number of hours and only picking up a little at long intervals. In these two cases the quantity of supplementary food required is evidently not the same; and as the necessary amount can only be determined on the spot, it should be left to be regulated by the local authority. But it should be always a liberal allowance; for the camel is a delicate animal, and soon dies if subjected to much fluctuation in the quantity of its food when kept in hard work.

The allowance of food to camels in the Crimea was 9lbs. of barley meal and 12lbs. of chopped straw, and, failing the latter, 18lbs. of the first. There probably was little, if any, grazing in the Crimea; but the same may be said of most parts of Afghanistan that we have marched through.

G. NICHOLETTS, *Lieut.-Col.*,
Comdt. 29th (or 2nd Biluch). Regt., Bombay Native Infantry.

CAMP KOKERAN;
The 27th May 1879.

Memorandum on the organization, constitution, and working of a transport service in time of war, by MAJOR SIR B. P. BROMHEAD, *40th Native Infantry.*

The transport is a service only called into existence on the outbreak of a war, when special and extraordinary arrangements become necessary for the proper and uninterrupted supply of the troops engaged with provisions and war *matériel* of every description; and when the extra strain thrown on the commissariat demands that its resources shall be supplemented by special arrangements made by specially deputed officers. The transport service, however, is simply a branch of the commissariat, and officers serving in it must remember that the chief commissariat officer with the division to which they may be attached is the head of their department, and all their reports and references must be made through his office. On the other hand, commissariat officers should not interfere with any arrangements that transport officers may make for the care of their animals and the efficient working of their train, so long as they are in accordance with the spirit of these regulations. They should, moreover, afford every assistance in collecting carriage, cattle, and fodder (in an enemy's country it may sometimes happen that the commissariat is the *only* source whence forage and supplies can be obtained); they should give them timely notice of all transport required; and, finally, it is their duty to make them necessary cash advances, and to examine and settle all their accounts. It is absolutely necessary for the efficient service of the army that the most perfect *entente cordiale* should exist between the two departments; that they should work willingly together; and help each other in every possible way.

SECTION I.—WHEELED CARRIAGE.

A Bullock Train.

Establishment.—The following establishment is considered sufficient for the efficient organisation and working of a bullock train:—

Superintendent of Transport		
Assistant Superintendents (one at *each* end of the line, and one at *each* intermediate station, either where a branch runs off the main route, or where it may be necessary to "break bulk," *i.e.*, to unload the carts and redistribute the loads. For example, for a train working from Jhelum to Peshawar, with a branch to Kohat, and the Indus at Attock, unbridged, 5 Assistant Superintendents would be necessary, *viz.*, 1 at Jhelum, 1 at Peshawar, 1 at Kohat, 1 at Rawul Pindi, 1 at Attock.)	As may be necessary.	
Writer, for *each* terminal station		1
(In the example given above, one writer would have been required at Jhelum, another at Peshawar, and a third at Kohat).		
Jemadar, at *each* camping ground		1
An extra one at terminal, or important stations, if considered necessary by the Superintendent.		
Chalandars, or native guards, at *each* camping-ground		2
Carpenter, at each camping-ground		1
Mistri (lohar) and his assistant ditto ditto		1
Nalbûnd (farrier) ditto ditto		1

In addition to the foregoing each European officer should have a few mounted orderlies placed at his disposal. They are indispensable. It would be advisable not to have them changed.

Pay of Establishment.—Superintendent of transport—staff salary per mensem Rs. 300 in addition to pay of rank, and half staff pay of his permanent appointment (if he holds one).

Assistant Superintendents—per mensem Rs. 150 in addition to pay of rank, and half staff pay of his permanent appointment, if he holds one.

	Rs.
Writer, per mensem	25
Jemadar, per mensem	12
Chalandars, per mensem	6
Carpenter, mistri and assistant, and nalbund.	

It is necessary that these men should be kept at every camping-ground, or at as many as can possibly be arranged for. But so long as they are not required to go out of British territory, they need not get any pay at all, as they will make their legitimate profits out of the cartmen whose carts it will be their business to repair and whose bullocks they will shoe. If, however, they are required to go out of British territory, they must be paid at the following rates :—

Carpenter, per mensem	15	And free rations.
Mistri, lohar, ditto	15	
Do. assistant ditto	5	
Nalbund ditto	10	

And in addition, the carpenter should be supplied free with nails, screws, &c., and, similarly, the lohar with iron for wheel tires, linch-pins, &c., &c.

NOTE.—These men must be treated liberally, or either they would not cross the frontier, or else desert at the first opportunity; besides, they could not themselves procure the necessary materials. In the recent campaign when the bullock train was extended from Peshawar to Jellalabad, the transport officers used to ascertain from the lohars and carpenters what their probable requirements for a month would be, purchase what was necessary in the Peshawar Bazar, and send it out.

Travelling allowances.—Superintendents and Assistant Superintendents of Transports should be reimbursed the amount of their actual expenses incurred necessarily in the discharge of their duties. Their bills should be supported by receipts for each payment made. The bills of Assistants must be countersigned by their Superintendent.

Free rations.—When serving beyond the frontier, all the native staff—writers, jemadars, chalandars, carpenters, mistris, their assistants, and nalbunds—are entitled to free rations at the rate allowed to all camp-followers.

Formation of a train.—The first thing the Superintendent has to do is to collect carts. He should write to the civil officers of adjacent districts for their assistance, specifying the number and description of carts required,* and where they are to be sent to. It would greatly simplify the cartmen's accounts if district officers would send one sharp man in charge of each *batch* of carts that they despatch to the *rendezvous*, who would bring with him a roll of his men showing the date on which each was entertained. They should be asked to do this. Next, arrangements must be made to receive the carts. A writer, and the authorized establishment must be entertained, and their duties explained to them, a suitable camping-ground must be selected, shade, water, and good drainage being sought for. Necessary books, tickets, and stationery, must be obtained. As the carts arrive they should be numbered and entered into a "long roll," and their drivers each provided with a ticket properly filled up. It is most important that this numbering, and writing up of the tickets, and long roll, should not be delayed, or put off, for a single day. Strict attention to this will save endless trouble and confusion. The number and initial letter of the district from which it comes should be painted (white) on each cart in some conspicuous place, thus—$\frac{U.}{1709.}$ which would signify that the cart had come from Umballa, and was No. 1709 on the roll. As far as possible, carts should be kept separate by villages and districts. The men are extremely averse to being sent away from their own mates, and incalculable trouble and mischief will ensue from any attempt to break up the regular gangs—in the Punjab they call them '*tokes*.' It is easy to understand this: the men from one village all know each other, they will work cheerfully together, help each other in every way, and things will get on famously. Try and separate them by sending off some with this train, others with that, and there will be rows and confusion at once. These gangs, or *tokes*, generally have one man amongst them whom they all look to as their head, and who is their spokesman on all occasions. It is a good plan to work through this man, and hold him responsible for the conduct of his gang. Directly the carts arrive, the drivers should be warned that they must carefully keep their carts in repair, and their bullocks well-fed and clothed (each bullock should have a good *jhool*) and in good condition. Failing in this they will be liable to be summarily turned out of the train, forfeiting any arrears of pay that may be due at the time. There must always be some difficulty in procuring an adequate supply of bhoosa, &c., for such a vast number of beasts as would be collected. The Superintendent should give timely notice to the civil authorities of his probable daily requirements in this respect at each camping-ground along his line, for the cartmen cannot be allowed to go wandering off into cities and bazars in search of what they want. It will be one of the duties of the jemadar at each camping-ground to see that everything is duly paid for.

As soon as the train is ready to commence work, the Commissariat Department will inform the Superintendent where, and for what, its services are first required. The carts to be loaded should be sent down to where the loading will have to be done on the day before that fixed for starting, as the loading and checking take a long time. It is a fair day's work to load and despatch 200 carts with regularity. The loading is done under Commissariat arrangements and supervision, but the transport officers should see that the loads are properly secured, that the carts are not overloaded, and that tarpaulins are provided for each. Whenever possible an Assistant Superintendent of Transport should be present, when the loaded carts are made over, to check their contents with the invoice which he will receive. In his unavoidable absence, the jemadar, accompanied by a chalandar, must do this work. It is only necessary to count the cases, bales, or packages, in each cart: they have nothing to do with the contents. The invoice, or chalan, is finally made over to the chalandar, who should start with his charge before daybreak on the following morning, accompany the train as far as the next camping

* The 4-bullock cart is the only one that should be employed. Those in the Punjab are very good ones, and on metalled, level, roads may be relied on to carry an average load of 25 maunds each. On cutcha roads or in hilly country, they should not be loaded above 10, or at the most 12, maunds. Next to a 4-bullock cart, a 2-bullock one is best: but a 5-bullock one, or a 3-bullock one, should not be accepted. They carry no more respectively than the 4-bullock and the 2-bullock cart, and the odd bullock is only a pretext for extra hire. In this last campaign, 8 annas a bullock a day was paid, halting or marching, empty or full: and after march it was raised to 10 annas a bullock. These rates were much too high. It would be ample and fair to pay Rs. 40 or Rs. 45 per mensem per 4-bullock cart. Payments should be made to the cartmen themselves, never through chowdries.

Beyond the frontier, of course higher rates must be paid according to circumstances.

From Peshawar to Jumrood, 12 annas a bullock was paid, and thence to Jellalabad, 14 annas.

NOTE.—Buffaloes are no use for draught purposes, and should be rejected, or got rid of as soon as possible. They are very slow, and quickly give in if the weather is at all hot.

ground, and there make it over to the fresh staff, while he will return with the next down train of carts, bringing with them a receipt from the jemadar at the camp for so many carts delivered all correct. This plan was found during the recent operations to work very smoothly and effectually.

It must be remembered that the same carts, bullocks, and drivers, must go right through from where they are loaded to where they will discharge, and therefore the train cannot proceed faster than at the rate of one march a day. It is impossible to change the bullocks en route, unless the carts are the property of Government, and only the bullocks hired. But where the cart and bullocks are the property of one man, it is obviously impossible to separate them. The system, detailed above, of despatching 200 carts a day from the base of supply, will ensure a steady stream to be discharged at the front: but if some particular articles—say tents, gun-cotton, &c., are urgently called for, arrangements should be made for their despatch by the regular bullock train which exists on all main roads, and which travels at the rate of 40 or 50 miles a day.

Duties of the Staff.

Assistant Superintendents.—These officers will generally be placed in charge of different sections of the line, and it will be their business to keep it in efficient order, and to see that every subordinate under them thoroughly understands his work, and does it. To ensure this they must occasionally visit the camping-grounds in their sections, instruct and correct when necessary, and report all deficiencies, &c., to the Superintendent, as well as the measures taken to rectify them. They must be especially careful *never to allow a block to occur.* At places where it is necessary to break bulk, great care and energy are requisite, or delay, confusion and loss, may ensue. If fatigue parties on such occasions are required, they must be arranged for through the staff officer of the station, if not available coolies must be engaged. If advances for the cartmen are necessary the Commissariat will make them, the Assistant noting on each man's ticket the amount advanced, and date of payment, and sending to his Superintendent an acquittance roll of the men paid. Each Assistant should keep an official "diary," in which he should enter daily in a brief, simple, narrative form all occurrences connected with his work which may be useful for future reference, thus—

> *September 7th.*—Started off 200 empty carts which arrived yesterday, made arrangements for extra supply of bhoosa at and camping-grounds (see letter book) also for a nalbund at Received a train of 200 loaded carts from discharged loads all correct. Got an advance of Rs. 5,000 from Executive Commissariat Office, paid cartmen as per roll (copy posted to Superintendent) and wrote up the drivers' tickets. Gave an order for 6 couple spare cart wheels, required at and .

The only other book that an Assistant need keep is a letter book. This must contain copies of all his letters, indents, and acquittance rolls, and, with the diary, should be shown to the Superintendent when opportunity offers.

Jemadars.—The jemadar at each camp is responsible that each train on arrival is examined carefully—1*st*, to ascertain that the contents of each cart tally with the invoice, and 2*ndly*, to see that the carts and bullocks are in good condition and fit to continue their journey. He must give the chalandar in charge of the train a receipt for the number of carts delivered "all correct" or as the case may be, and on the back of the invoice (which is made over to the fresh chalandar) he must note also the date on which the train arrived at and left his camp, the name of the chalandar in charge, and whether the invoice is correct or not. In any case, where the contents of a cart on arrival do not tally with the invoice, he must report at once to his section Superintendent, giving all details including the number of the cart, and the driver's name. He must see that all repairs are executed at once, that the bullocks are properly watered and fed, that all supplies purchased are paid for, and that the train is started betimes in the morning. He is also responsible for the cleanliness of the camping-ground. The carts as they move on to it should be ranged in regular parallel rows of about 50 each. In an enemy's country, they should be placed in a ring, poles inwards, and the bullocks fastened to the poles. He should also see that sick and diseased cattle are kept separate; those that die must be buried at once.*

Chalandars or native guards.—One of these men will accompany each train, empty or full, from his own camp to the next one. He should go carefully through the invoice with the jemadar and chalandar from whom he takes over charge, or to whom he makes over charge. His place on the march is with the rear cart. He should see that the carts keep well locked up on the road, and allow no straggling. If a cart breaks down, he must have a new wheel put on at once. No train should start without carrying a few spare wheels in case of accident. On no account must he allow the load of one cart to be distributed over several others; and if any break of bulk unavoidably occurs in transit he must be particular to have it noted in the invoice.

Carpenters, lohars and malbunds.—These men, with the implements and materials for driving their trades, must be kept at each camping-ground. With a little management this can generally be effected. They must execute all necessary repairs immediately a train arrives, and the jemadars of camping-grounds will see that they are paid by the cartmen for all work done.

Books and Accounts, &c.

The Long Roll.—This is about the most important book in the Superintendent's office; a specimen page is given in the appendix. It should contain each cartman's number (corresponding with that on his cart), name, village and district, the description of his cart, date of entertainment, &c., and a memorandum of all payments made to him. If this book is carefully kept up to date, it will always be easy to tell at a glance what each individual has been paid, and how much is due to him.

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* All natives who have anything to do with cattle can recognise the "foot-and-mouth" disease. It is easily cured if taken in hand at once. The mouth should be washed out with alum and water, and the feet stuffed with carbolic acid and tow, if they are very bad, cut freely between the hoof, and stuff them as directed.

For "cattle-disease" there is no remedy. The affected animals should be destroyed at once, and buried.

The Ledger—must be kept in the usual form. The Cr. side will show all sums drawn, or received from the Commissariat or from treasuries, &c., and the Dr. side all sums expended, for whatever purpose.

The Letter Book—will contain copies of all memoranda and letters written, all indents and all bills, numbered in regular sequence.

Tickets for cartmen.—It is impossible to attach too much importance to the value of the "ticket system." If attended to from *the very first*, it will save endless trouble and confusion in the end. The day he arrives at the base depôt, each cartman should be given a stout cardboard ticket properly filled in. A form for the ticket is given; in it are all the particulars found in the "Long Roll." The plan would be to have the men up one at a time while the Long Roll is written up. The tickets can then be rapidly prepared from the Long Roll, and the number painted on each cart to correspond with that on the ticket. The ticket system acts as a valuable check in making payments, prevents imposition, and saves trouble to everybody.

NOTE.—All stationery, books, stamps, tickets and envelopes, &c., should be supplied by the Commissariat Department.

Discipline.—It is most necessary to keep up a strict system of discipline amongst the subordinate native staff, and amongst the cartmen. Fines are not advisable for many reasons. It is better, as regards the former, to dismiss them at once; or, if they are soldiers, to remand them to their regiments. As regards the cartmen, if they allow their bullocks to get out of condition through want of care, or under-feeding, or their carts to be delayed through want of timely repairs, they should be put on lower rates of pay, or lose pay for the days during which they are unfit for work. But there is a crime to which they are prone, which demands prompt and severe punishment. It is tampering with the loads on their carts. It is a common thing for them to rip open a sack of flour, rice, or whatever it may be and help themselves to the contents. If such an offence can be proved against a man, he should be flogged on the spot, and turned out of the train, and forfeit all arrears of pay due to him at the time.

NOTE.—The employment of native non-commissioned officers, and sepoys, or sowars, as jemadars and chalandars, is recommended. They should be smart, active men, and able to read and write—at all events, the jemadars. If the operations of a bullock-train are extended beyond our own territory, it is almost indispensable that these men should be soldiers.

Guards.—Within British territory it is not considered necessary to have a military escort with the daily train. In an enemy's country of course guards must be provided. The transport officer on the spot would give the Brigade Major, or Assistant Adjutant General, timely notice of the hour at which the train will be ready to start, stating the general nature of the stores being conveyed, and the number of carts in the train, and the military authority will detail a guard of whatever strength they deem sufficient.

Hints for an officer in charge of a convoy or in charge of carts in a hilly country.—The officer should keep with the rear-most cart. On level roads, or going up hill, keep the carts well locked up. Going down hill, allow a little space between each cart, as in case of a sudden stoppage, they are liable to run on to each other, and seriously damage the cattle, or the carts and their contents, or all three. If there are 4 bullocks to a cart, take 2 out, and fasten them on behind. They will hang back if the cart runs down too quick. In descending steep hill roads with a *khud* on one side, if it is necessary to scotch one wheel, scotch the one nearest the *hill*, because the unscotched wheel is liable to run round, and in this way the bullocks and cart will be safe; otherwise they might be driven over the *khud*. Going up-hill, stop frequently to rest the cattle, and immediately have all the wheels scotched to save the carts from running back, or dragging on the bullocks' necks. In case of an attack make the train close up as much impossible. If cattle are shot, and it is necessary to abandon a cart, destroy its contents if it is as possible to save them. If the attack is likely to be a serious one, in consultation with the officer commanding the escort, determine where a stand is to be made, and endeavour to close on the spot indicated. Use every effort to keep the drivers in their places and to prevent any crowding, confusion, or panic. When forming camp for the night, place all the carts in a ring, poles inwards, and the cattle inside. All convoys should carry half a dozen picks and shovels on the leading cart. They come in useful in many ways.

Appendix I.

CARTMAN'S TICKET.

DRIVER'S TICKET.—(*Front.*)

No._____ Name_____ Cart_____

Comes from Village_____

Tehseel or Thana_____

District_____

Was entertained on the_____

Arrived at_____ on the_____

Remarks.—

(*Transport Officer's Signature.*)

Obverse of Ticket.

No.	Amount.	Name.	Rate of pay per month.
Date of payment.		Up to and for what date.	Initial and remarks of paying officer.

Appendix II.

The Long Roll.

Successive Numbers.	Name.	Cart.	Wherefrom.			Date of entertainment.	Date of arrival at
			Village.	Tehseel or Thana.	District.		
1							
2							
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27							
28							
29							
30							
31							

The Long Roll.

Successive Numbers.	Memorandum of Payments made to each man.																Total.		
	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Rs.	A.	P.
1																			
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Section II.—Pack-Animals.

Elephants, camels, mules, ponies, &c.—In time of war, while a cart-train would be confined to main roads, and would be used chiefly for pushing forward supplies of all kinds to what may be termed the base of active operations, it would, in this country at all events, be generally the case that for forward movements beyond that base, camels, mules, and other pack-animals would be brought into requisition, because of their greater mobility; inasmuch as they can travel across country, and over roads impassable by carts, and can also keep up with the troops whose supplies thry are conveying. It is, therefore, assumed that pack-animal transport is always employed with an army in the field, the animals being used, not only for the conveyance of its baggage and stores when marching, or making expeditions, but also for keeping up a constant stream of supply from the base to its head-quarters, as they continue to advance into an enemy's country. The simplest and best way of working this effectively is to have a system of *Divisional Transport*, under the control of a Director, with a staff, as hereinafter detailed, under him.

Establishment.

Director of Transport—(each army corps or column) 1, salary Rs. 500 a month.
Superintendents—For each division 1, salary Rs. 300 a month.
Assistant Superintendents—As many as necessary, at Rs. 150 a month.
The following scale is considered necessary :—

For all the elephants not exceeding 100			1	Assistant	Superintendent.
„ every 500 camels, ...			1	„	
„ „ 1,000 mules, or ponies	...		1	„	
„ „ 1,000 pack-bullocks	...		1	„	
Writers for office of Director of Transport			2	at Rs. 30	each.
„ „ each Superintendent		„	1	„ „ 25	„
„ „ „ Assistant		„	1	„ „ 25	„
Jemadars for „ „ Supdt.		„	1	„ „ 25	„
Jemadar's assistants, or *naibs*, to each Assistant Superintendent, 5 at Rs. 10 each.					

In addition to the above, each European officer should have a duffadar and 4 sowars placed entirely under his orders.

Note.—It is not necessary, or even advisable, that these men should be taken from regiments present with the force. Commanding Officers would naturally object to such a deduction from their strength, and would never give their best men under any circumstances. The plan would be to order up a troop specially for orderly duty in the transport department. Their services are quite indispensable, especially when on convoy.

Travelling allowances and free rations—Will be allowed under the same conditions as to the bullock train.

Formation and organisation.—In communication with the Commissariat Department and the civil authorities, the Director of Transport will collect all the animals he can at the place assigned as the base of operations, and where the army will assemble. In addition to those that he may collect by his own efforts, he will take over the whole of the carriage of every regiment, or battery, &c., as it arrives. In this way an enormous amount of transport will soon be at his disposal. He must at once commence to tell it off to the different divisions of the army, placing the proper officers in charge in accordance with the scale given above. Each division should have sufficient carriage assigned it, allowing a large percentage for sickness and casualties, to move it at a day's notice, and a large reserve must be constantly kept up not only to keep the divisional carriage up to its full effective strength at all times, but for general carrying and forwarding purposes not immediately connected with the movements of troops. The *modus operandi* would be briefly this: When a move is to be made, regiments, batteries, and departments will indent on the Superintendent of their own division for the number of camels, &c., required. He will send it to their camps at the hour asked for, in charge of his own assistants (who should throughout the campaign never be separated from their own squads); they will superintend the loading and unloading of the animals, keep with them on the march, and see that they are properly cared for afterwards. When a division is halted for several days, its carriage at the discretion of the Superintendent may be used for ordinary supply purposes; but they (the animals) should not be allowed to proceed more than one day's march from the troops who are dependent on them in the case of a sudden move being ordered. When a point distant from the base of operations and supply has to be kept provided by means of a train of camels, or mules, &c., it is infinitely better to establish regular camps and depôts along the road, and change at each, than to let the same animals and men go right through. They should go laden one day, and return the next without loads if possible. Camels suffer much from cold, but more from wet, but the two combined will carry them off very quickly unless they are well looked after in every way. At all standing camps regular lines should be chosen for them, and surrounded with high walls to protect them from wind. Great attention should be paid to drainage, and in a cold wet climate, a stout *jhool* made of sacking, and a waterproof sheet—such as was issued to every native follower in Afghanistan—are absolutely necessary for each camel. It is not only to keep them alive, but hundreds that survive become so numbed and weakened from cold and exposure that they cannot carry a proper load, or do a good day's work when it is required of them. It is cheaper to pay a few hundreds of rupees for these articles, than several thousands as compensation for dead camels,* to say nothing of increased efficiency. It is equally important to attend to the feeding and watering of all pack-animals, especially of camels. It should be the first care of Assistants and Superintendents to ascertain where are the best grazing grounds for them, how far from camp, whether an escort is necessary or not, &c., &c. If grazing is near and plentiful, it is a good plan to send out all your spare camels, load them with forage enough for all, and bring them in at once. Bhoosa too is necessary for camels, and should be got in and stored in large quantities at all halting stations. When taking over charge of a number of camels, examine them carefully, and reject all that are sick, weakly or too young to work. The surwans also must be inspected, and old men and others evidently unfit te stand work either rejected, or made to keep an efficient servant. (*a*) Each assistant must keep a "long roll" of his surwans, showing how many camels are each man's property, when they were entertained, &c. He will make them all payments, provide them with tickets properly filled up, and be responsible for the efficiency and discipline of his squad. Five hundred camels are quite as many as one officer can thoroughly look after. The number is also convenient for this reason that it is sufficient to move a British regiment (with 15 days' provisions) on the Kabul scale, or 2 Native regiments or a battery of artillery, and 1 Native regiment. Throughout the campaign he should never be separated from his charge; and to prevent any mistakes every one of his camels should be branded with his own private mark. (*b*) Mules and ponies should be branded on the hoof. The ticket system is just as valuable for camel-men as for cart-drivers, and should be rigidly adhered to.

* NOTE.—At the lowest computation 50,000 camels died during the recent operations in Afghanistan, and compensation, at Rs. 60 per camel, would have to be paid for them.

Females, except in rare instances, should not be taken.

NOTE.—The indents for carriage should be made over to Superintendents, who at the end of a march should simply write on the back of them—"Certified that camels were supplied to, and used by, the regiment for days, *viz.*, from to ." (Signature and date.) Underneath this the Commanding Officer of the Corps concerned should certify thus:—"The above statement is correct, and I hereby certify that out of the total shown above camels for days were used for private carriage, and are chargeable to the regiment." (Signature and date.) The indents should then be sent to the Divisional Commissariat Officer, who can recover the money due in the usual manner. By this system, no carriage is kept up by regiments for a day longer than is necessary, and yet it is always at hand when wanted. It is a great hardship on officers who have to pay for their carriage to keep it up when they may be halted for weeks together. Moreover, this way of working must greatly simplify the accounts. Transport Officers would very soon learn what carriage a regiment is entitled to, and, besides, companies would not be likely to indent for more than the authorised scale.

Duties of the Staff—Superintendents.—These officers will be held responsible that the transport of the division to which they are posted is always up to full strength, and in good working condition. They will inform the Director whenever they require fresh animals sent up from the reserve to replace casualties. They must give their utmost attention to the selection, cleanliness, and drainage of their cattle lines; and above all that the animals in their division are well-fed, well-clothed, and well-cared for in every respect. Any measure for their good that occurs to them, if it seem to require superior sanction, they should report at once to the Director, and obtain it. The surwans and drivers too must be looked after and arrangements must be made at all standing camps to provide them with some kind of shelter. Old, feeble men are no good for hard work, and together with all weak and sickly animals, should be weeded out.

Assistant Superintendents—Must help in all these duties, and are responsible for the efficiency of their own squads, as the Superintendent is for that of the whole. They must send in a "morning state" of the animals every day to the Superintendent, who from them will compile one for the whole

(*a*) NOTE.—There should be at least one surwan to every 3 camels.
(*b*) Branding can be effectively carried out with roughly-cut wooden letters, and a mixture of tar and oil.

division. This state will show the number of camels, &c., present and fit for duty, number sick, number away on command, casualties since last report, &c., &c. The Superintendent will send a copy of the "state" daily to the Director, and another to the Assistant Adjutant General of the Division, for the information of the General Commanding. Assistant Superintendents will each have their own share of the divisional cattle lines, and be responsible for its cleanliness and drainage, and also that their camels are properly clothed, watered, and fed. They will keep their "long roll" carefully up to date, and they will also have the payment of their own men. As soon as possible after the 1st of each month, they will submit to the Superintendent an acquittance roll of their men for the preceding month. All camels that die before the 16th of a month should be paid for, for half a month; on, or after that date, for the full month. The Superintendent should examine, check and countersign the rolls, and then send them to the Commissariat Department, who should disburse the money forthwith.

No payments should be made through jemadars or chowdries.—The Assistant should pay every surwan himself. It is impossible to lay too great stress on this. It is hard to estimate how much of their hard-won earnings remains in the chowdry's hands if payments be made through him. The rates of pay would be settled by the Director of Transport, in communication with the Commissariat Department. They would vary according to circumstances. Each Assistant must keep a ledger, a simple Cr. and Dr. account showing all sums received, and all sums expended; and a letter-book, into which must be copied all memoranda, letters, bills, &c., despatched under his signature.

Jemadars and Naibs.—The naib should be told off to squads of 100 camels each (or 200 mules or ponies each) and the jemadar exercise supervision over the whole. It is the duty of these men to keep the surwans and drivers up to their work and to see that they do not neglect, or ill-treat, their animals, that they are regularly fed, and watered, and clothed. In the lines, their own squads should be kept separate as far as possible, and they must carefully see that in cold and wet weather *jhools* and water-proofs are put on.* They must at once report any sickness, or sore-backs, &c., and they are responsible that all deaths, and the dates on which they occur, are correctly reported. On the march they must keep with their own squads, keep them in their places, and prevent straggling; they must also take care that the animals are not overloaded. In the plains 5 maunds may be put on a camel, but on hilly roads 4 maunds should never be exceeded. Good mules will carry almost as much as a camel, especially on hill roads; small mules and ponies proportionately less. The jemadar and naibs must also take care that pack-saddles, girths, and ropes, &c., are always kept in good repair.

General instructions regarding the management of camels, and for officers on convoy duty, &c.—One important thing to remember is that camels† should never be loaded one minute longer than is positively necessary. If they have a long and difficult march to get through, it will exhaust their strength before it is commenced to be kept standing about for hours before they start with their loads on. When it is the baggage of a regiment to be conveyed, the men will do the loading, and if every load is got ready by them, it need not take many minutes to put them up, as there are plenty of hands. If it is a case of despatching daily trains with stores to the front, the loads should be arranged in readiness on the night before at the Commissariat godowns, and in the morning there should be either an adequate fatigue party or a detachment of kahars (of whom there are always hundreds in camp doing nothing) ready to load up at once. The train could then get over the best part of its march in the cool of the morning, and the animals could get rest and food the same day. They should not be allowed to drink for at least two hours after coming in, and if they have drunk on the road not until the following morning. On the road they must never be pressed. Let them go at their own pace, and on hill roads let them halt frequently. There should always be a few picks and shovels with the leading camels. They are most useful to smooth bad bits of road, &c.; a sowar should ride with the leading camel. The officer's place as a rule is with the rearmost one. He should keep his duffadar with him. Every train must be accompanied by a few spare camels;‡ they should be kept behind. If a camel sits, or falls with his load—or if his load shifts, or falls off—have it pulled on one side, and the animal fastened to it. It will be picked up by one of the spare camels at the tail of the train. On no account let the train be stopped for such a cause. The men, surwans, naibs and sowars, &c., must be well drilled into this. The drivers are reluctant to lose sight of their animals, and will stop the convoy if they can. If a camel is utterly done, and refuses to rise, try the effect of giving him a bottle of rum. If within a mile or two of camp, he will bring in his load all right, if more, he will get in without it.§ When camels are worn out and unfit for work, they should at once be sent away to good grazing depôts previously fixed upon in the rear. It will take them at least six months to recover condition. When discharging loads consisting of general stores for the army, the convoy should be marched to the Commissariat enclosures, and unloaded as fast as possible. The consignment can be arranged at leisure by the Commissariat staff, but the important thing is to get the loads off, and let the animals get food and rest.

It is very necessary for every transport officer to have a supply of carbolic acid always ready for use, or if a good strong carbolic acid ointment were made up and issued in large quantities it would be better still. It is invaluable for sore-backs and sores of every description.

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* The jhools should have a slit in the middle for the camel's hump on either side; it must be long enough to touch the ground when the animal is sitting, and thus to protect the stomach from the wind. The waterproof is thrown over all, and on the march is most useful to throw over the load.

† With obvious modifications all these remarks apply in an equal degree to all pack-animals.

‡ 5 per cent. should be sufficient, but more may be necessary.

§ Rum has a marvellous effect on camels in cases of exhaustion, and a supply for this particular purpose should always be allowed and be at hand. It is just this. The animal is worth at least Rs. 60 to Government. If left on the ground he will die and must be paid for; if he can be brought into camp he will ultimately recover and the money will be saved.

APPENDIX—FORMS.

Morning state of transport animals belonging to the_____Division and in charge of Lieutenant_____A._____B., Assistant Superintendent.

Dated CAMP_____*the*_____*1879.*

Detail.	Elephants.	Camels.	Mules.	Ponies.	Bullocks.	REMARKS.
Present—fit for work	...	416	...	...	...	
On command at Ali Musjid ...	...	117	Should return to camp this evening.			
On command	...	...	...	...	...	
On command	...	...	...	...	...	
Sick and unfit for work	...	13	...	...	...	
Died during the week	...	...	...	...	...	
TOTAL ...	...	546	...	...	...	

Assistant Superintendent.

FORM FOR SURWAN'S TICKET.

SURWAN'S TICKET,—(*Front.*)

No. Name
Responsible for how many camels
Wherefrom
Date of entertainment
Any remarks by Transport Officer

Signature.

SURWAN'S TICKET,—(*Back.*)

No. Name
No. of camels to be paid for Rate per camel

Date of payment.	Amount.	Up to and for what date paid.	Initial, and remarks of paying Officer.

Long Roll (for Surwans).

Succession Nos	Names.	Number of camels.	Rate per camel.	Total.	Wherefrom			Date of entertainment.	Remarks.
					Village.	Thannah.	District.		

The Long Roll (for Surwans).

Succession Nos.	Memorandum of payments to each man														Total.		
	Amount.	Date	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Amount.	Date.	Rs.	A.	P.

Memorandum on Army Transport by COLONEL J. G. MEDLEY.

The Army Organization Commission having invited opinions on other questions than those to which answers were specifically asked, I take the liberty of troubling them with a few notes on the all-important question of Army Transport.

I need not enlarge on the weakness of the present system, or rather want of system, which has been so signally displayed in the late (and present) campaigns, for it has been sufficiently patent to every one. I come at once to the question itself.

I think that no system will ever be satisfactory that does not provide in the first instance for the working unit of the Army, *i. e.*, the Regiment or Battalion in the case of Cavalry or Infantry, and the Battery or Company in the case of the Artillery or Sappers. A fighting unit without transport is as nearly useless as if it were without arms, and a Commanding Officer might as well make over his rifles to the care and custody of another Department as depend on that other Department for enabling him to move.

Several things are gained by the provision of Regimental transport. You relieve the *Army* transport from a certain portion of its unwieldy burden, and utilize the Regimental organization in reducing to order a certain (and not inconsiderable) part of an incongruous and undisciplined mass; you ensure better care and treatment for the men and animals employed; and you make each fighting unit complete in itself for a certain time, thereby giving a mobility and elasticity to the whole force which it never had before.

Of course it is not intended to propose that a Regiment should be provided with transport for an indefinite time, or with an unwieldy train, which would hamper it in action or on the march. What the minimum and maximum should be must depend on a variety of considerations, and could best be settled by a Committee of experienced Regimental Officers.

I should myself say that every Regiment should have sfficient transport attached to it to carry—(1), four or five days' rations, the men themselves carrying for two days more in their havresacks; (2), the first reserve of ammunition; (3), the great coats and knapsacks; this would differ according to the climate and time of year; for a hot weather campaign, tents of some kind might be carried instead of the great coats.

The weight of the above should be as follows, per man:—

Five days' provisions, at 2	...	...	...	=	10 lbs.
Thirty rounds of ammunition	...	...	...	=	3 „
Great coat and valise	...	...	...	=	15 „
			Total	...	28 lbs.

leaving the soldier about another 28 lbs. to carry, *i. e.*, his rifle and accoutrements, 70 rounds of ammunition, and two days' rations.

[In India I would certainly carry 30 rounds out of the 70 for him.]

Taking the strength of the Regiment in round numbers at 1,000, so as to include a little extra baggage for the officers, medical stores, entrenching tools, &c., we get 28,000lbs., or 350 maunds, as the total weight to be carried; requiring 70 camels or 140 mules or ponies, or 35 light carts—certainly not an inordinate number to accompany a Regiment on the line of march, and the great majority of which would of course be left in the rear in time of action. Provided with such a transport train of its own, with men and officers trained to load and look after the baggage, a regiment could be readily detached from the main body, and able to march in two hours after getting the order; self-contained and independent of all extraneous assistance for at least a week; with money in hand to purchase supplies, this time of course might often be considerably extended.

With regard to the rations, it seems a pity that nothing has been done to simplify the soldiers' food, and at the same time render it more palatable and nourishing. With the various modes now in use of preserving meats, soups, vegetables, &c., and with biscuits, sausages, and similar kinds of protable food, it would seem an easy matter to feed the soldier well without having to be constantly baking bread or driving about herds of lean cattle to turn into the everlasting stew of beef.

In the same manner what with compressed hay and horse biscuits, our Cavalry and Artillery should not be hampered so much (as I understand they were with the Kandahar column, for instance) by the paucity of forage.

The whole subject of the best campaigning food for men and horses would seem to require to be taken up *de novo*.

The question of the best and most portable kind of drink for the soldier is also worth a little study. Nothing can well be more nasty and unrefreshing than warm water out of a bottle; a little rum in it is certainly a vast improvement, but cold tea or coffee or thin cocoa (as any sportsman knows) is the best drink to do work on; the raw materials for these drinks are all very portable, and the means for making them or heating them when required are easily carried.

With English soldiers, too much attention can hardly be paid to this question of food and drink, *and to its being ready at hand and at the right time.* I am convinced that many reverses have been sustained in this country by men being over-exhausted by a long march or the heat of the sun, and by there being no refreshment at hand. That is a strong reason why such arrangements up to a certain point should be *regimental*, and not entrusted to a separate department.

It is impossible I think to doubt that transport animals when attached to a regiment, would be better cared for than under the present system. The comfort and convenience of the regiment would be felt to depend so largely upon its train that every one would be interested in looking after it. What the particular organization should be, I do not pretend to say; it must depend of course largely on the nature of the transport employed.

The late experience of camels is certainly not cheerful; they are always unwieldly and awkward brutes, and I fear a British soldier could seldom be taught to load or drive them.

With ponies or mules, the aid of the soldiers (whether European or native) could largely be drawn upon for their care, and this of course would reduce the number of camp-followers.

Wherever carts can possibly be employed (and this means wherever horse artillery can go), they

should certainly be used as the most convenient, economical, and in every way the best mode of transport. With two mules or ponies to each, and the soldiers ready to lend a hand with drag ropes, they should, if light and strong enough, be able to go over everything having the semblance of a road. If possible the bodies should be readily removable from the wheels, so that in very bad places the cart could be carried over in pieces. I understand that the American wagons are particularly suitable, the corresponding parts being interchangeable.

The utility of a regimental transport train will obviously be increased if it is so arranged as to be divisible if possible amongst the Companies. This is a matter of detail which need not here be worked out.

The train itself would be in charge of one of the regimental officers, aided by a certain number of non-commissioned officers and soldiers; but *all* the officers and men of the regiment should be able and ready to assist when necessary.

In this as in other matters, a regiment should, as far as possible, be self-contained, and (what all are pretty well agreed on) the number of camp-followers should be reduced to a minimum. Not only should the men be trained to load, drive and take care of their own baggage animals, but they should be their own cooks, bakers, tent-pitchers, and water-carriers.

By all means feed, clothe, and, when possible, shelter soldiers properly, but then, *work them hard;* they are all the better and more cheerful for being taught to do everything for themselves, and not to rely upon others. To coddle men and make them helpless under the pretext of taking care of them is the worst possible way to turn them into good soldiers. It is a general subject of complaint that our Indian Service Regulations have a direct tendency this way, and make a man helpless and delicate, rather than helpful and strong, and, so far as I have observed, I think the complaint is well founded.

In the same manner I would say too much attention is paid to the minutiæ of drill and to firing accurately at a target, and too little to the real requirements of actual service, to make the men capable of undergoing long marches and considerable fatigue, to be steady under fire, and to fire deliberately in return, to be able to entrench and hut themselves rapidly, and, as said above, to rely only on themselves for everything.

Much of this, no doubt, can only be learnt in actual war, and really constitutes the difference between the veteran and the recruit. But something of it may be acquired in peace, and to attain this very useful end and somewhat lessen the expense of the Army to the State, I would strongly advocate the employment of the Army in the cold season on road-making and other public works as far as possible. I know Public Works Officers say that it is not economical—probably not, as far as only the cost of the works is concerned; but the subject has to be looked at from more than one point of view, and if the employment of soldiers, as above recommended, trains them better for war, keeps them in better health, and makes them better soldiers all round, the extra money expended is really well laid out, or rather pays for itself indirectly. As to its popularity, I know it was said that the regiments employed on road-making in Hazara some years ago had never been so healthy or so free from crime, and the men so cheerful as they were then, and what is true then ought to be true now.

If we want to keep the frontier tribes in order, and the hill country in subjection which we have now added to our territory, the only effectual way to do that is to permeate it with good roads, and there could not be better or more useful work for the troops.

I should now like to add something on another phase of the transport question, that is, its applicability to carrying *the men themselves* on service, rather than their baggage. I remember, during the Oudh campaign, after the capture of Lucknow, how difficult or rather impossible we found it to catch the flying parties of rebels. Cavalry were useless against forts in the middle of a jungle, and by the time the Infantry had arrived, the fort was evacuated.

I remember also how Nicholson pursued the Siálkot mutineers in the middle of the hot weather, carrying his European soldiers on ekkahs, and eventually overtaking and destroying the enemy at the Trimmu Ghât.

Mounted Infantry have often been recommended, and in the Civil War in America were found most useful. In this country, however, I should be strongly inclined to advocate an Ekkah Corps as more economical of horse flesh, and giving greater facilities in every way. An ekkah could easily carry two soldiers, their arms and accoutrements, 100 rounds of ammunition, great coats and valises, and a week's provisions; it could go over any track that does duty for a road, and can travel at this rate from 20 to 40 miles a day.

[Ordinary laden ekkahs plying between Rawalpindi and Murree, 39 miles, regularly make the journey between sunrise and sunset, the last 15 miles being steady collar-work the whole way.]

The men should take it in turns to drive. On approaching the scene of action, the horses would be hobbled; a few men left in charge, and the remainder would be ready to fight.

I think the power of moving a body of Infantry in this manner by double or triple marches would often be a most valuable one, and I beg to commend it for consideration.

I have said nothing about the reduction of the transport or ekkah train in time of peace, or how far either should be kept up. Of course the full complement would not be retained, but a sufficient number should be kept to train and accustom the men to their use, and I think employment might be found for them to a large extent with little expense to the State. So long as a good skeleton organization was retained, it would be easy to supplement the numbers on the outbreak of a campaign or to make up the full complement temporarily by drafts from regiments not going on service.

I have also said nothing about divisional or hospital transport, not having anything particular to say about them.

LAHORE,
The 30th September 1879.

J. G. MEDLEY, *Colonel,*
Royal Engineers.

Addendum to Memorandum on Army Transport, by COLONEL J. G. MEDLEY, R.E.

Since writing the above memorandum, I have had the advantage of discussing the subject with an experienced officer of the Quarter-Master General's Department, who was employed during the late Afghan campaign, and who has favored me with the following criticisms on my proposals in regard to regimental transport.

The first objection made is, that although the regimental train would be very useful while the regiment was on the move, yet directly it halted at a standing camp, its carriage would be required to return and bring up another regiment from the rear, as no General would consent to keep the regimental carriage idle.

But I see no valid objection in this; the regimental train would be simply lent for the time and sent away complete with its own officer and men, who would be under the orders of the transport department until they returned to their own regiment. It might, of course, so happen that the regiment had to march before its train returned, but a little good management and forethought should prevent this.

A further objection is made to my proposals for reducing the number of camp-followers (by making the soldiers do much for themselves that is now done for them), on the ground that every soldier employed in this maner is a deduction made from the fighting strength of the force, and that doolie-bearers and grass-cutters (for example), who may be said to form the great majority of the camp-followers, cannot well be replaced by soldiers.

As a matter of fact, even with our present arrangements, I do not see why grass-cutters should not be dispensed with. If there is grass or green fodder to be had, it can generally be procured by purchase; if it cannot be bought, or if the people of the country cannot be impressed to procure it, the horses must be sent to graze, or must go without, or fall back on compressed hay, if there is any. I never heard of grass-cutters in a European war.

Doolie-bearers are a more difficult matter no doubt, as the sick and wounded must be carried along. But carts should be employed as much as possible, and the men carrying empty doolies (or the empty doolies themselves) should be utilized for other purposes.

But there is a better answer to the above objections than the above, which will apply not only to the camp-followers named, but to all other camp-followers; and it is this: *let every camp-follower be an armed and trained fighting man.*

At present these men are simply an encumbrance to an army—so many extra men to feed and protect. Under the above rule, they would be so much extra strength—an armed and disciplined *second line.*

As on board a ship, whether a man of war or merchantman, every steward, cook or other "non-effective" has his place and duty allotted to him in case of fire or ship wreck, so should the "non-effectives" of an army be able to take their places in time of action, and should, under all circumstances, be capable of defending themselves.

It may be said that this will require us to draw our camp-followers from different classes or castes from those now customary, and this may be admitted, though not to the extent that might be supposed. I only say that the advantages of the arrangement are so obvious and reasonable that it will be worth while to pay extra or to do anything that may be necessary to secure the proper kind of men; and that in this, as in other matters, we must get rid of our Indian prejudices where a certain good result is to be obtained. It used to be thought impossible to get the same class of men to dig like laborers and fight like soldiers, until necessity led us to raise the 23rd and 32nd Pioneers, who have been found so useful that it is only a pity we have not many more of such regiments.

I have already remarked on the superiority of carts over other means of transport. Since inspecting the different kinds of carts now being sent up to the army, all to be drawn by bullocks, I am more than ever convinced that what is really wanted is a light two-wheeled cart to be drawn by two ponies or mules. It should be made chiefly of wrought-iron and bamboo, so as to combine lightness with strength, and should carry about 10 maunds; and I would strongly advocate a prize being offered for a pattern cart of this description. By substituting wheeled for pack transport we not only obtain economy of animal power, but we save *sore-backs*, the great drawback to pack animals, besides all the delay incidental to packing. As remarked before, the bodies, wheels and axles of the carts should be readily removable, and all similar parts should be interchangeable. The width (between wheels) should be as small as possible, and a light water-proof cover should go over the body.

J. G. MEDLEY, *Colonel,*
Consulting Engineer to the Government of India for Guaranteed Railways at Lahore.

LAHORE,
The 31st October 1879.

No. 22—2711, dated 9th September 1879.

From—Brigadier-General, H. H. A. WOOD, C.B., Commanding Deesa Field Brigade,

To—The Secretary, Army Organization Commission, Simla.

Referring to paragraph 4 of your letter No. 167 of the 11th ultimo, I have the honor to forward a few additional suggestions on Transport for submission to the Commission.

Transport.

In continuation of my remarks on transport and the bamboo coir cart constructed by Major Heyland, I would further recommend the formation of large farms in India for breeding mules.

The mules should be bred from she-donkeys, which, as I before observed, can be procured anywhere, fed on almost anything and require no care.

A few stallions (inexpensive country-bred horses would do) would be sufficient on each farm.

The donkeys might be usefully employed in the cart in times of peace up to within two or three months of their foaling in substitution, as far as possible, of the present expensive field column carriage, and as their foals (the mules) grow up, they too might be utilized in the same way, this, leaving out the question of cheapness of the original animal, and its keep generally, would be a great saving.

I need not point out the advantage of securing a sure supply at hand of hardy, wiry transport animals at a small cost to Government, instead of having as hitherto to rely on foreign aid for them when they can only be obtained at very high prices in uncertain numbers, and at times and in places where the supply depends upon circumstances beyond control. For instance, with respect to price, those purchased for Abyssinia by Colonel Clarke Kennedy in Syria were delivered at Suez for £26-10 each.

I would further propose that native soldiers over 5 years' service of good character with a proportion of non-commissioned officers should be selected from the different regiments and employed at these farms (the men being liable to be remanded to their regiments in case of misconduct), the time thus employed being allowed to count towards pension, the same as if they were present with their regiments.

Homesteads being erected on the farms would make this service highly popular and eagerly sought after; the necessary number of men should accompany the animals in times of peace when employed as field column carriage. In war time this transport corps would not only supply muleteers, also efficient escorts to baggage and stores, the men being fully trained soldiers armed with Snider ..es slung over the shoulder, so as to give them the full use of both hands.

By the disposal of these men (who should be kept properly equipped and armed as above proposed) at the various farms, the necessity for locating other troops in these particular districts might be dispensed with, and thus, though at first sight this may seem an expensive scheme, it is, if examined, not really so, as either fewer men would remain with the present regiments, or the number of regiments might be reduced, the men employed at these farms being sufficient to ensure the good order of the localities in which they are situated.

For the several farms I would propose that one European and two native commissioned officers be appointed, in the first instance, to each farm, these might hereafter be increased, if necessary, and as farms enlarged. The European officer should not only be responsible for the animals in his charge, but also for the discipline of the men, and should keep a register of births and deaths as well as records of epidemics and ordinary diseases.

As it requires no training or special knowledge for these appointments, these officers should be selected for their good temper and tact, and generally from amongst those fond of field sports and of a country life.

I would also recommend an inspector of the whole of the farms in India, with one or two veterinary surgeons under his orders, who should accompany him on his tours of inspection and be prepared at other times to visit any of the farms in case of epidemics.

The farms should be inclosed by a cactus hedge (*Euphorbia nivulia*), and alongside the hedge Babool trees (*Accacia arabica*) should be planted. Planted thus, they would not only be in no way injurious to the grass, but would afford a certain amount of shelter to the animals, and be, in the loppings alone, a source of considerable income.

I may add that if during the recent campaign in Afghanistan some similar system of transport had been in existence, probably not only would Government have been spared the loss of about 65,000 camels and the lives of numbers of defenceless followers, but also the spectacle of a force being unable to move for want of carriage.

In the meanwhile the farms would have been steadily on the increase.

Notes on Transport.

It was most remarkable that, lately, on the return of certain regiments from Afghanistan, the *hired* mules and ponies were in better condition than the Government mules and ponies that were handed over to regiments.

Why was this?

That can easily be answered:

The hired mules were tended by their owners, who had experience in managing them.

The Government mules were tended by any coolies that could hastily be hired.

These men had no interest in the animals under their charge: stole their grain—did not care whether the animals were galled or not, and were the most difficult men to manage.

The regiments (European) had little or no previous knowledge of the packing, much less of the care and feeding of baggage animals. In several cases, the animals arrived as it was getting dark at the lines of the regiment to which they were to be attached, frequently on the eve of a march before dawn. What was the result? Loads badly packed and animals unevenly and often very much overloaded, thereby showing the European soldier at a disadvantage to the native troops of the frontier force and others who were accustomed to the packing and management of mules and baggage animals.

I think it will be agreed, on all sides, that our transport system is far from being what it ought to be.

During the recent campaign, animals were bought by Committees, only to be condemned by fresh Committees on reaching the front. Saddlery was badly fitted, and I knew of a case where several baggage animals, passed at Peshawar by a Committee as fit for service, had, a day or two after their arrival at Jellalabad, to be cast by a Committee as unfit for service; and yet these animals had not carried up any loads. Officers who volunteered for service, and who were attached to the transport service, might have worked most zealously; but it is possible that their experience of the management of baggage animals was but very slight.

It is obvious that if you have not a *trained transport* service during times of peace, you cannot expect to *organise one* during war. I would suggest that all transport should be done under regimental system. Why should not all regiments in India possess their full *war* equipment of tents and trans-

port? If this should prove too large an undertaking, could not the experiment be tried with those regiments in the Punjab and those nearest to the frontier? Should, however, this be deemed unsuitable, I would strongly urge that every regiment be supplied with a certain amount of baggage animals for reserve ammunition and puckals, a certain number of days' rations, and, if small tents were likely to be used on being ordered suddenly on service, according to the situation of the regiment, baggage animals for the conveyance of the same. If European privates' tents are in the possession of regiments, a sufficient number of camels, for the carriage of the same, should always be attached to the regiment; and, although these animals might, when not required for regimental work, or practice of regiments, in loading the animals and making up of the loads, be used for general public service, I would have them completely given over to the care of commanding officers of regiments, who would be held responsible for their efficiency as much as any other Government or regimental property entrusted to their charge. These animals should then be allotted by the commanding officers to the different troops and companies, who would vie with each other in the welfare of the animals belonging to them, as well as in the celerity and security with which their kits, tents, ammunition, &c., could be made up into loads and packed. Nothing but constant practice at this last-named occupation will ensure loads being properly made up, and securely and evenly distributed.

I cannot help thinking that, with the two European cavalry regiments stationed at Rawal Pindi and Sialkote, a good trial might be made of the animals now used as grass-cutters' ponies being bought by Government, or, better still, if the regiment could be provided with mules sufficiently numerous to carry the whole of the regimental transport.

Instead of paying the double grass-cutters Rs. 8 per month, and making them find the ponies, I think the State would be better served, and with very little more expense in the end, if the grass-cutters were paid Rs. 5 per month, and were provided with animals, mules, if possible, by Government, who would, of course, also feed the same. The extra quantity of baggage animals could always be used in cantonments for public service, which would greatly reduce, if not altogether dispense with, the present moveable column system.

It has been urged, I know, that this arrangement leads to difficulties between the commissariat, or other public service, and the commanding officers of regiments to which their animals would belong, and that, probably, would exist to a slight degree with commanding officers who were proud of the condition of the animals under their charge, and who would be apt to think that the animals were unfairly worked when taken away from the regiment; but that would be but a small matter compared with the gain to the regiment, suddenly ordered on service, of being in possession of a complete transport service, the characters of the attendants of the animals known to their troop officers, the men accustomed to make up loads and to distribute them evenly and to secure them properly, and officers, non-commissioned officers and men accustomed to the habits, feeding and care of the baggage animals attached to their troops, as well as to the habits and management of the attendants of their animals, who would be on the same footing as the syces attached to a regiment.

For a cavalry regiment, 400 strong in the field (as that is about the strength one could really calculate on) equipped with tents of the pattern suggested for baggage of men on the Kabul scale, together with the regimental number of puckals, ammunition reserve, forge and veterinary stores, armorers' tools, &c., and Quarter-Master's stores, but *without provisions* for men or grain for horses, as that could only be ascertained by the number of days for which provisions would have to be carried, 263 mules would be required. The grass-cutters' poines for 400 horses would amount to 200. If mules were substituted for these, and mule puckals (12), as well as reserve ammunition mules (27), were always entertained with the regiment, there would only remain mules for forge and veterinary stores (9) armorers (1), Quarter-Master's stores (14).

Thus only these 63 additional mules would be required, to be enabled to move the whole of the regimental baggage at a few hours' notice.

E. A. WOOD, *Major.*

Memorandum on the merits of a pack-saddle used by the Shans and Kakhyens of Upper Burma, by Brigadier-General F. W. JEBB, *Adjutant General, Madras Army.*

When in command of an escort to bring Mr. Grosvenor and party from Manwyne in Western China across the Kakhyen hills to Bhamo in Upper Burma, a convoy of 500 small mules and ponies were employed for the transport of camp equipage, ammunition and baggage, &c. I was very much struck with the good qualities of the pack-saddle used by the natives of those parts. It was far lighter and handier for packing than any I had seen before.

This saddle consisted of two parts, the pad and a wooden trestle, the latter being detached from the pad by simply lifting it up.

The soldiers used to load these trestles on the ground in front of their tents, taking care to preserve as nearly as possible an even weight on each side. When the animals were driven up with their pads on, two soldiers would let up the loaded trestle, and place it gently into position between two wooden stays on the pad. The animal was then loaded and ready to proceed without a single strap of any kind being required to secure the trestle to the pad.

The country traversed was of the roughest. Several ranges of hills, some about 5,000 feet in altitude, had to be crossed, and the track was often so narrow and precipitous, winding in deep water-courses, that it was marvellous how the animals made their way along safely. The distance passed over was about 100 miles; and at the end of the journey I don't remember hearing of a sore-back amongst the whole train of animals, although the loads often exceeded 200 lbs. in weight, and when the tents happened to get wet, the parts forming a load would become fully 300 lbs.

In 1878 I procured one of these saddles from the late Mr. T. T. Cooper, Political Agent at Bhamo, and handed it over to Colonel Loudon, late Commissary General, Fort St. George, who in a private note spoke highly of its design and lightness; but as it was too small to fit any of the commissariat mules, I don't think it ever had a proper trial in this country.

I write this memorandum because I am not aware that such a saddle as I have described has ever been in use in India. Where all the loading can be done before the beasts of burden come into camp, the placing of the loaded trestle on the animal's back is but the work of a few seconds, and the whole train gets into motion in the shortest possible space of time.

OOTACAMUND, *The 23rd August 1879.*

F. W. JEBB, *Brigadier-General, Adjutant General, Madras Army.*

Dated Amballa, 26th October 1879.

From—Major O. BARNES, 10th Bengal Lancers,

To—The Secretary, Army Organization Commission, Simla.

I regret that active service and aftewards ill-health prevented my submitting the report on transport called for.

I would ask permission now to make the following remarks which may be of service.

In conveying a load the least economical of all methods is that where the strength of the beast of burden is unaided by mechanical appliance.

Nearly all our carriage on service is of this kind. We have given in to the dictum that wheels cannot go where we want to.

In a small degree we have tried carts, but of the very worst description. Each cart is in itself a load, and the clumsiness of its make eminently disqualifies it for military service.

If we wish to get the best kind of carriage, we should look about for a country where the conditions are similar to those of this country, *i. e.*, small mules or ponies, hilly or unmade roads, and scarcity of cart-makers.

Many countries answer this description, but the only one which has fairly tackled and beaten the difficulty is America.

Australia and New Zealand have followed the American lead and reaped success.

A most perfect system of carriage will be found in all the new territories of the United States.

The cattle are small mules like the Punjab mules; carts are made of a pattern eminently suited to the work required, and are easily kept in repair while the harnessing and care of the mules are well worthy of imitation in India.

I think it would well repay Government to investigate fully the American method of transport.

My health compels me to proceed to Europe next week, but should it be considered desirable to investigate thoroughly and report on the subject now under notice, I shall be happy to undertake the work required.

I was present both in Abyssinia and Afghanistan, and know what is wanted.

Dated Kuram, 8th June 1879.

From—Major A. P. PALMER, 9th Bengal Cavalry, Supdt. of Transport, Kuram Field Force,

To—The Chief Commissariat Officer, Kuram Field Force.

With reference to memorandum No. 433, dated 3rd March 1879, from the Assistant Quarter-Master General, Kuram Field Force, requesting me to state my views *in extenso* on the subject of transport, I have the honor to furnish the following notes for the consideration of the Major-General Commanding:—

Camels.

For transport service in a country like Afghanistan, it is obviously important to secure hardy camels, and such as are accustomed to broken and stony ground, as the "ship of the desert" is quite out of his element, and soon succumbs when he has to face a steep hill, or do work on grazing to which he is unaccustomed.

The following is a list of the districts where the most suitable camels are procurable:—The Rawul Pindi district and north of the Jhelum, Khoora, in the Kohat District, Nurra near Attock and Kalabagh. The "Pahwinda" and Wazeerie camels, though light and small, are invaluable if properly selected, and those from Herotie are very fair, but Government must be prepared to pay at the average of Rs. 115, in times of scarcity, for their camels.

No camels should on any account be sent to work beyond Thull, which are indigenous to the lower Punjab, the North-West, or Central Provinces of India, and the following up-country districts should be avoided when purchases are made for Government:—Shahpore-Jhung and Mungrana, Montgomery, Mooltan, and Dera Ismail Khan, where "Pahwindahs" are unprocurable.

As railways increase in India, the annual carriage will, of course, proportionably decrease, so to provide for the wars of the future beyond our frontier considerable encouragement from Government to camel and mule breeders will be necessary, prizes being given at fairs, and other inducements held out, and the present most ill-advised tax on baggage animals removed, or only levied in the districts where indifferent animals are produced.

Camel attendants.

Great losses to Government will always result if ignorant and inefficient *surwans* are employed; and, when a sudden call for the collection of carriage for an army takes place, the difficulties lately experienced must repeat themselves, unless some system is adopted in time of peace, whereby reliable men can be obtained as required. A sort of conscription is the best thing that I can suggest,—a register being kept by district officers, in all camel-producing areas, of men who understand the work, the household to which such men belong, being required to periodically produce for inspection, one or more able-bodied relations, who are liable for enrolment as Government surwans.

To check desertions, descriptive rolls of men so enrolled would have to be carefully made out, and a deserter, if apprehended, severely punished, the head of his household being fined and made to produce

an efficient surwan in lieu of the deserter. Surwans should, in my opinion, be attested, and so render themselves amenable to military and martial law.

Minor organization.

Having procured efficient camels and attendants, the next thing requiring attention is supervision, and the following I consider to be sufficient:—

	Rs.
1 Naib Chowdry, on	25 per mensem for each 400 camels.
1 Moonshee, on	20 „ „ „ „
1 Jemadar, on	12 „ „ 100 „

No misaldars, as at present 400 camels are a convenient number for a convoy, and are as many as one Naib Chowdry can supervise—

1 Non-Commissioned Officer and 5 Sowars Native Cavalry ... } for each 1,000 camels.
1 „ „ and 5 Sepoys Native Infantry ... }

These native soldiers should be able to read and write, and should understand Pushtoo as well as Hindustani.

1 British Non-Commissioned Officer (Cattle Sergeant) ... ... } for each 1,000 camels.
1 Salootrie ... ... }

It is exceptional to find a naib chowdry who understands his work, and who is able to read, write and keep accounts, so a moonshee to assist him is very necessary. The moonshee would have to keep a return of every camel under the naib chowdry's charge, and purchase fodder on the naib chowdry's security, the purchases being supervised by a non-commissioned officer or soldier permanently told off from the transport native soldiers for the duty. The present establishment of one naib chowdry to 1,000 camels, one misaldar to 360, and 1 jemadar to 160 has not been found convenient or efficient.

The employment of cattle sergeants with the transport department is most desirable There are many duties, such as making over small numbers of animals to detachments, &c., which an officer should not be called on to discharge, but which at the same time cannot be entrusted to natives. There are also many other ways in which a British non-commissioned officer could give great assistance in supervision, and seeing that orders are punctually observed, but he should be entrusted with no personal responsibility.

Organization.

On the commencement of operations corps and batteries might have their carriage allotted to them, as has been lately done, and I am of opinion that only the "general transport," by which I mean local carriage and carts, should be under the Commissariat Department, transport officers not being employed with it in any way. A director, attached to the Quarter-Master General's Department, who might be styled "Deputy Assistant Quarter-Master General for Transport," will always be required, also one officer to each thousand camels not allotted to regiments. The whole surplus carriage might be under the direction of the Deputy Assistant Quarter-Master General for transport, who would fill up deficiencies in regimental transport therefrom. No carriage need be permanently allotted for reserve ammunition, commissariat reserve, engineer park, or sick transport. The general officer commanding advised by the chief commissariat officer, the Commissary of Ordnance, the commanding Royal Engineer and the Deputy Surgeon General, is the best judge of the fittest manner of employing the surplus carriage; the Deputy Assistant Quarter-Master General for Transport would always be provided with data to shew the amount of surplus carriage available, including that attached to halted regiments, and, under the General's orders, could issue instructions for the Commissariat, Ordnance or other Departments to be allotted carriage, temporarily, as considered necessary.

It has been proved to be undesirable that transport officers should be placed in a subordinate position to officers of the Commissariat Department, and, had it been more generally known beforehand that such would be the case, many transport officers would not have joined.

The difficulty lies at the commencement of a campaign in obtaining transport officers with any knowledge of their duties, but they might be overcome in a great measure if, for the office work, writers were appointed from the commissariat from the class of men qualifying for the post of "Head Assistant," with a thorough knowledge of detail and accounts, good work, while employed with the transport department, being rewarded by advancement in the commissariat on the conclusion of the operations. The out-door work will be rendered much easier than at present by the appointment of cattle sergeants who have served in the commissariat, at the rate of one per thousand animals, as above suggested.

If Government is prepared in time of peace to maintain a nucleus of a transport department, it would of course be of the highest advantage. A director with four or five assistants should be sufficient, their duties being to collect information regarding the districts in which carriage can be procured, the quantities that could be impressed if required, and to make arrangements, or suggestions for the consideration of Government, regarding the present supply being increased.

The Director would be in direct communication with the Quarter-Master General in India, and he and his assistants should constantly travel about and personally supervise any arrangements inaugurated.

I have the honor to append a set of instructions drawn out from time to time for the guidance of transport officers with the Kuram Field Force, also a statement of the amount of carriage employed since the commencement of operations.

Work performed by Transport Department, Kuram Field Force.

In addition to moving the troops, the whole of the supplies were conveyed to the front by the Transport Department from November to February, since which the supplies have chiefly been carried to Kuram by local carriage owing to the hired camels of the Transport Department being greatly reduced in numbers from the great strain of work early in the campaign, and the scarcity of grazing in the Kuram valley; the strings of camels purchased for Government is undergoing enquiry by a special committee, but I have no hesitation in saying that, with such material to work with, much cannot be expected. Every attention has been given to their care and feeding since they joined the Kuram Field Force.

As a proof of the difficulties to be contended with, owing to the want of food, grazing, I may add that the casualties amongst the camels of the Punjab Chief's Contingent has been proportionately far in

excess of those in the Transport Department; I believe I am correct in stating that out of 200 camels, which came up in the spring after the bad weather was over, which did but little work, had 3 seers of grain per *diem*, and were looked after by their owners, only about 60 left Kuram to return to India last week, and of these only 26 were up to full loads, probably not much more than 15 per cent. of the 200 will reach Kohat. The Transport Department had therefore to arrange for the carriage of the Puttiala and a part of the Nabha Contingents back to Thull.

It must be remembered that the local carrige animals, which are in such wonderfully good condition, only make about two trips between Thull and Kuram, the Jowaki men refusing to do more, saying they cannot stay in a country where their camels starve.

Notwithstanding the great number of casualties from various causes amongst the transport animals, it is gratifying to be able to state that not only to the best of my knowledge has the General Commanding never been hindered through insufficient transport from making any moves that he contemplated, but that had it been our good fortune to have advanced on Kabul in April, this column would have been able to cross the Shutar Gurdan with tents, 15 days' provisions and 15 days' extra of dry stores.

Mules. As regards mule carriage, I have no suggestions to make for its improvement, except a far greater increase, if possible, further inducements than at present being held out to breeders, the tax removed, and prizes given, not only for the large shapely mule fit for artillery purposes, but also for the wiry little pack animal which proves our stand-by in expeditions over a hill country.

Transport officers, Kuram Field Force. In conclusion I feel it my duty to add that it would have been impossible to have carried on the duties of supervision, but for the ready aid which I have received from the officers appointed as Assistant Transport Superintendents. Several of them have had very arduous duties to perform, and have worked most zealously in a somewhat difficult position.

I have the honor to append a list of officers who have served in the Transport Department since I formed it, with remarks as to their respective qualifications and discharge of their duties.

Detail of carriage employed with Kuram Field Force.

Hired Camels.	Shere Singh.	Umballa.	Khuttack.	Totals.
Brought on Rolls in October 1878	3,190	...	992	4,182
November „	2,219	...	...	2,219
December „	875	...	...	875
January 1879	792	..	...	792
February „	132	1,531	125	1,788
March „	46	...	45	91
April „	184	621	...	805
Strayed animals recovered up to 31st May 1879	40	33	36	109
Total	7,478	2,185	1,198	10,861
Casualties.				
Died, lost, deserted, abandoned, strayed and carried off from 1st November 1878 to 31st May 1879	6,083	1,600	1,145	8,828
Balance on rolls on 31st May 1879	1,395	585	53	2,033
Government Camels.				
Brought on rolls from 1st March to 31st May 1879	...	...	...	3,088
Died, abandoned and strayed up to 31st May 1879	...	...	..	777
Balance on rolls on 31st May 1879	...	...	...	2,311
Abstract.				
Total actually brought on rolls, recoveries being deducted—				
Hired camels	...	...	...	10,752
Government camels	...	...	...	3,088
Total	...	...	...	13,840
Actual losses during campaign	...	...	...	9,496
Total camels on rolls, Kuram Field Force, 31st May 1879	...	...	...	4,344

No. 3838½K., dated Simla, 11th September 1879.

Endorsed by the Military Department.

Copy of the above forwarded to the Secretary, Commission on Army Organization and Expenditure, for information.

Statement shewing the number of Transport and Commissariat Officers attached to the Force employed in Afghanistan, 1878-79.

Forces.	Number.		Remarks.
	Transport Officers.	Commissariat Officers.	
Peshawar Valley Field Force, 1st Division	11	7	From returns dated 1st May 1879.
Ditto ditto 2nd ditto	10	5	
Kandahar Field Force	12	9	
Thal Chotiala Field Force	2	3	From return dated 1st April 1879.
Kuram Field Force	14	6	Ditto 1st May „
Vitakri Field Force	1	1	Ditto 2nd June „
Khyber Brigade	1	2	Ditto 21st July „
Sind Reserve	16	1	Ditto 3rd May „
Total	67	34	

APPENDIX LVII.

Statement of proposed establishment for Department of Military Works at head-quarters of the Army of India and for the Bengal and Punjab Army Corps.

INSPECTOR GENERAL'S ESTABLISHMENT.

		Cost per mensem. Rs.
1	Inspector General of Fortifications and Director of Works ...	11,500
1	Deputy Director of Works for Fortifications	
1	Assistant Director of Works for Fortifications	
1	Deputy Director of Works for Barracks	
1	Assistant Director of Works for Barracks	
1	Aide-de-Camp to Inspector General	

COMMANDING ROYAL ENGINEERS.

4	Commanding Royal Engineers (1-1*st* grade, 2-2*nd* grade, 1-3*rd* grade) with office	9,750

ENGINEER ESTABLISHMENT.

21	Garrison Engineers ... } distributed in grades according to	52,000
40	Assistant Garrison Engineers ... } Public Works Department Rule	

UPPER SUBORDINATE ESTABLISHMENT.

63	Upper Subordinates (distributed in grades according to Public Works Department Rule)...	11,000

LOWER SUBORDINATE ESTABLISHMENT.

120	Sub-Overseers (distributed in grades according to Public Works Department Rule)	9,600

ACCOUNTS.

1	Examiner (II class, 1st grade)...	7,850
35	Accountants (distributed in grades according to Public Works Department Rule)	
	Total ...	1,01,700
	Total per annum ...	12,20,400

APPENDIX LVIII.

Statement shewing the cost of Remounts passed into the service during 1876-77 and 1877-78.

BENGAL.

Statement shewing the cost of each Remount passed into the service in 1876-77.

		Rs.	A.	P.
799	horses remaining from 1875-76, valued at Rs. 600* each ...	4,79,400	0	0
273	stud-bred remounts present on 1st April 1876 at Rs. 600 each.	1,63,800	0	0
46	stud-bred horses received from corps and batteries at Rs. 600 each.	27,600	0	0
244	stud-bred horses selected as remounts and brought on strength of depôt during the year at Rs. 501-9-2 each.	1,22,383	13	2
741	horses purchased during the year	3,43,067	7	2
2,103	horses.	11,36,251	4	4
	Average first cost	540	4	9½

* The valuation for the first year is necessarily assumed at an approximate figure. The value of the balance in hand on the 1st April 1877 for next year's account will be at the rate of Rs. 540-4-9.

Total charges—							
				Rs.	A.	P.	Rs. A. P.
Expenses at reserve depôts				1,92,667	2	7	
Ditto from depôts to corps and batteries ...				12,762	12	9	
Supervising staff				32,212	5	0	
Public Works Department charges for original works and repairs.				34,509	0	0	
Interest on buildings and lands				35,243	8	9	
Expenditure incurred for remounts previous to transfer to reserve depôts.				1,07,662	8	6	
Total ...				4,15,057	5	7	
Add first cost of 146 casualties (26 died and destroyed, 115 sold and 5 transferred to brood stock) at Rs. 540-4-9½.				78,883	11	7	
Total ...				4,93,941	1	4	
Deduct from sales—							
			Rs.				
5 chargers selected by officers ...			3,000				
8 horses purchased for the Viceroy			6,000				
102 horses rejected and sold ...			16,163				
5 transferred to brood stock ...			3,000				
				28,163	0	0	
Net charges ...				4,65,778	1	4	
875 remounts supplied to the army—							
Average total charges on each remount							532 5 1
Average first cost							540 4 9½
Total cost of each horse issued to corps and batteries ...							1,072 9 10½

BENGAL.

Statement shewing the cost of each Remount passed into the service in 1877-78.

				Rs.	A.	P.	Rs. A. P.
1,082	horses remaining from 1876-77, valued at Rs. 540-4-9 each.			5,84,601	3	6	
19	horses received from corps and batteries or returned to depôts at Rs. 540-4-9 each.			10,265	10	3	
267	stud-bred horses selected as remounts			*1,55,305	0	0	
989	horses purchased during the year			4,91,281	4	0	
							12,49,453 1 9
	Average first cost						530 1 8
Charges—							
		Rs.	A.	P.	Rs.	A.	P.
	Expenses at reserve depôts.	2,50,229	7	4			
	Cost of repairs executed by Public Works Department.	13,339	10	7			
					2,63,569	1	11
	Expenditure on remounts previous to transfer to remount depôts.	2,16,750	10	2			
	Cost of repairs, &c., executed by Public Works Department.	17,180	14	6			
					2,33,931	8	8

* Average purchase rate plus cost of feed and keep from year of purchase to 1877-78 of 267 horses . Rs. 1,33,598 15 5
Add value of 76 colts and fillies died, sold, and destroyed, calculated at original cost *plus* feed and keep. 27,204 1 7

1,60,803 1 0
Deduct amount realized by sale of 58 colts and fillies 5,498 1 0

1,55,305 0 0

		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Expenses of remounts from depôts to corps and batteries.	...	12,732	2	6						
Supervising staff ...	...	36,726	2	3						
Interest on buildings and lands.	...	35,858	8	0						
					5,82,817	7	4			
Add first cost of 163 casualties (*viz.*, 39 died, strayed, and destroyed, 120 sold and 4 transferred to brood stock) at Rs. 530-1-8.	...	86,406	15	8						
Deduct from sales—										
	Rs.	A.	P.							
66 chargers selected by officers.	38,200	0	0							
5 horses purchased for Viceroy.	3,000	0	0							
49 rejected and sold ...	7,280	10	0							
4 transferred to brood stock.	2,120	6	8							
		50,601	0	8						
					35,805	15	0			
Net charges		...			...			6,18,623	6	4
965 remounts passed into the army—										
Average total charges on each remount.		641	0	11						
Average first cost		530	1	8						
Total cost of each horse issued to corps and batteries.		1,171	2	2						

The value of the balance in hand (1,229 horses) on 1st April 1878 will be taken in the next year's account at Rs. 530-1-8.

MADRAS.

Annual Statement of horses at the Remount Depôt, Oosoor, for the year 1877-78.

1877-78. 1,181 horses at the depôt.

	Rs.	A.	P.		For 1877-78. Rs.	A.	P.
667 horses remaining from 1876-77, first cost (at Rs. 524-10-8).	3,49,952	10	8	First cost ...	521	11	6
				Depôt charges...	294	9	0
514 horses purchased, 1877-78, first cost.	2,66,200	0	0	Cost of each remount.	816	4	6
	6,16,152	10	8				
Average first cost ...	521	11	6				
Total depôt charges, exclusive of purchase-money.	1,64,445	4	0				
First cost of seventeen casualties (ten sold and one transferred to the farm and six died), at Rs. 521-11-6.	8,869	3	6				
	1,73,314	7	6				
Deduct—							
	Rs.	A.	P.				
By sales ...	1,720	7	2				
„ farm profit ...	152	9	0				
	1,873	0	2				
Remounts supplied to Army, 582 ...	1,71,441	7	4				
Average depôt charges on each remount	294	9	0				
Average first cost	521	11	6				
Total cost of each troop horse ...	816	4	6				

APPENDIX LIX.

Papers on the Remount Department.

1.—Present state of the Remount Department.

The Remount Department consists now of—

the Reserve Remount Depôt at Saharunpore;
the Reserve Remount Depôt at Hapur; and
the Receiving Depôt at Calcutta, which is divided into two branches—one at Ballygunj, and one at Garden Reach.

2.—Number of Remounts kept in reserve (unnecessarily large).

The nominal strength of all these depots is 1,000 head; but the average number hitherto kept up at them has not been less than 1,500 head. Experience, however, has shown that this number is much in excess of the requirements of the service, and that 1,000 horses would be quite sufficient to keep in the reserve. Taking into consideration the large surplus that yearly stands over after all allotments have been completed, and that Australia has an inexhaustible stock of horses for which there is no outlet but India, and is prepared to land any extra number in Calcutta within three months of the call by telegraph being made on them, it would seem high time now to reduce the number of walers to be purchased for Government in Calcutta.

3.—The depôt which ought to be selected for retention.

Should the Government decide on keeping up in future a reserve of only 1,000 horses, one depôt alone will be quite sufficient to accommodate the number. And, *for all reasons* the depôt to be chosen for the purpose should unquestionably be *Saharunpore*, and not Hapur.

4.—Objections to keeping up any depôt in Calcutta.

The effect of keeping a depôt in Calcutta has, in my opinion, been very injurious; I have never ceased to remonstrate against it, but only with the result of at last getting the horses moved on up-country more quickly than they used to be. I would therefore proceed to abolish the Calcutta depôt at once, and have each batch of newly-purchased walers forwarded on to Saharunpore as soon as possible. There would, of course, be some days of necessary detention, but for their accommodation during that time arrangements could be entered into with a livery stable-keeper. I would suggest the matter being submitted to public competition.

5.—Reasons hitherto assigned for maintaining a depôt in Calcutta, but which are not tenable.

The reasons given for retaining a Government depôt in Calcutta have been the weakly state in which horses are landed from the ships, and the necessity for having some place in which to get them up in condition before being subjected to the long railway journey up-country; but these reasons are untenable: the climate of Calcutta is inimical to all horses, and especially so to walers. What these bush-bred animals require to restore them after their voyage is *"a run at grass,"* and the sooner they can get turned out the better for them. But Calcutta has no exercising grounds, nor does it yield any green fodder; consequently the horses have to be kept stabled and highly fed with grain, the result being that their livers are laden, and they arrive up here so foul that it is only by time and care in diet that their digestive organs can be restored to a natural state. There is, in my mind, no doubt but that the Australian horses suffer more during the time they are kept in Calcutta and fattened on gram than by any effects of their long sea-voyages. And, rather than detain them, I would rail them off at once to the depôt where the means exist for their proper treatment (poor as they might be), though at the same time it should be the look-out of the Remount Agent to avoid buying such animals as were too low to stand the journey by rail.

6.—Reductions and alterations to be effected by abolition of Hapur.

The closing of Hapur would effect a saving of nearly half the staff of the existing executive establishments. But, owing to the increased number that would have then to be kept in Saharunpore, a slight addition would need to be made in the complement of the subordinate staff of this depôt. At the same time, it would be highly desirable to discontinue the services of a staff veterinary surgeon on *Rs. 1,300 a month* for this, or for any remount depôt, the duties of which are much more suited for one of the junior members of that profession; and were such arrangement to be carried out, the saving on this head again would much more than cover the increase made in the subordinate grades. To show how excessive has been the item for veterinary attention in the two reserve depôts hitherto, I would here point out that, even in the late prodigal stud department, one veterinary surgeon was considered sufficient for three depôts of the central division, though the cattle there were chiefly young stock; while for Saharunpore and Hapur, where the stock are nearly all adult horses, one senior veterinary surgeon is attached to each depot, and the subordinate hospital establishment has been increased in an equal ratio! So remarkable has it seemed, that my veterinary surgeon has himself expressed wonder at it, and has volunteered to look after both depôts himself.

7.—Alterations and reductions to be effected by abolition of depôt in Calcutta.

At present a remount agent is kept up in Calcutta all the year round on Rs. 700 a month staff. But far better than this would be for the purchasing to be done by the Director of Army Remount

Operations, and the Remount Agency abolished. A veterinary surgeon is also permanently attached to the depôt in Calcutta; but this, too, is unnecessary; if the services of a professional man were required on the days of purchasing, one could be detached from the battery at Barrackpore for attendance on those occasions.

8.—The arrangements under which the Director would carry out purchasing operations.

It should be notified that the time of purchasing would be between the 15th October and 1st April only, and the residence of the Director, with his office, should be in Calcutta during that time, the present house, "Rainey Castle," being kept on for their accommodation. But the depôt being broken up and the purchases kept at livery till forwarded on here, it would still be necessary to keep one overseer in Calcutta in the interests of Government, whose duty would be to brand the remounts as they were bought, to see that they were done justice to in the livery stables, and that none were charged previous to their transfer up-country.

9.—Reductions to be effected in the office of Director of Army Remount Operations.

There are too many clerks in this office for the work required of them: one man should certainly be discharged.

10.—The charge of remounts from Calcutta to the reserve depôt by rail.

Until quite recently, the remounts have *always* been brought up by a veterinary surgeon, whose travelling bill for each trip has amounted to something like Rs. 400. But this item can be saved by *always* sending an overseer on this duty.

11.—The cost of the different breeds of remounts obtainable, with reference to economy in purchasing.

The most expensive of the remounts purchased for Government are the Arabs and Persians which come from Bombay; next to them are the walers, and the cheapest of all are the country-breds. But, though the cheapest, the country-breds are also the most profitable, as, in proportion to their numbers, their classing is higher by committee, fewer are rejected, and more are selected, as officers chargers. Hence it is but too evident that, in the interests of the army as well as those of the State, the purchase of country-breds should be encouraged. Under present circumstances, it may not be practicable for the Government to buy the *young stock* of the country; but, whatever the circumstances, so long as remounts have to be procured at all, it is entirely for the general good that country-breds of *three years old* should be bought. An interdiction now exists to the purchase of district horses under four years old: this arose probably from the idea that, if purchased younger, the cost of keep would raise them above the price at which other remounts could be had; but this is altogether a mistake, a country-bred bought at three years old will be cheaper at four years old (and that, even if the fancy rate of Rs. 300 a year for keep be put upon him) than would any other four-year-old remount that could be found in India. Of this, there cannot, I think, be a doubt, that if economy is to be practised in the purchase of horses for this service, it will be found to lie in the following measures:—

I.—Prohibit altogether the purchase of any more Arabs and Persians.

II.—Keep down the number of walers to a minimum, and especially such as are fit only for light cavalry.

III.—Encourage, by all possible means, the purchase of horses of the country of from three to seven years old.

12.—Approximate money saving that would result from the measures now suggested.

The money gain on establishments alone, reckoning staff salaries only as saved, would be about Rs. 35,000 a year; and, were Hapur broken up, the lands occupied by it would bring in not less by rental than Rs. 5,000 a year; so, say, on the whole, an annual saving of Rs. 40,000. But from this something should be deducted for cost of arrangement with the livery stable-keeper in Calcutta; and a comparatively small lump sum would have to spent on necessary extensions to the Saharunpore Depôt. The most important heads, however, under which expenditure would be lessened, would not be in establishments *but in cost price and keep of remounts.* If only the Government can be induced to see that they are maintaining more remounts for the army than the army can use, or than the circumstances demand they should maintain, and will determine on keeping the reserve down to the number originally fixed upon for it, instead of its always being about 500 in excess of that number, then the saving would be great indeed.

13.—Members of Annual Committee for passing and classing remounts to the service.

This Committee is composed of officers selected from the different branches of the service, with the Director of Army Remount Operations as President. The depôt superintendent is in attendance, but only to give information and see after arrangements; he has no voice in the passing or classing. And here is the mistake: the man whose eye is in constant practice, who not only knows the horses, but is the most likely to know what they will grow into and change into, would surely be a useful member of such a committee, and especially so when the horses to be judged are walers which are never fully furnished before five years old. As it is now, wholesale mistakes are made in the classing, which mistakes have eventually to be corrected by the depôt superintendent himself; for instance, the returns of this depôt now show, as available for the service, horse artillery 55, field artillery 71, and Hussars 257. But, of the 257 hussars, at least one-fifth are more suited for artillery. So, when by allotments to different batteries the supply of remounts for that branch of the service is exhausted, I shall have to pick out from amongst the hussars such as are more fitted for draught purposes, and these will then be presented to the director, who will *re-class* them to horse artillery or field artillery, as the case may be. This is what goes on every year, and it will continue unabated until the depôt officer has a voice in the matter. What I propose, therefore, is that the depôt superintendent should be *ex-officio* a member of the annual passing and classing committee, and, in case of his absence on remount purchasing duty, that the next depôt officer be allowed to act for him.

14.—General Remarks.

In submitting the foregoing proposals for reductions in my department, I have carefully avoided bringing forward any measures of a nature to lessen the degree of care and comfort which, under existing rules, can be bestowed on the remounts; for it is just this depôt course they go through that restores their health and their confidence, and turns them out the excellent and enduring troopers they now are. Of this I am perfectly convinced that no scheme for economy would ever result in any gain, but, on the contrary, would prove a heavy loss, were it one that did not sufficiently provide for the necessities of the horses.

SAHARUNPORE; *The 18th August 1879.*

H. C. SMITH, *Lieut.-Col.*, *Senior Supdt., Reserve Remount Depôt, Saharunpore.*

Dated Saharunpore, 6th November 1879.

From—LIEUTENANT-COLONEL H. C. SMITH, Supdt., Reserve Remount Depôt, Saharunpore, and Remount Agent, Upper Provinces,

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

* * * * * * * * *

3. I have no objection whatever to my replies being printed in the appendix to your report; on the contrary, I am glad to think that my proposals meet with this consideration. But, as there are a few points on which I should like to have been more explicit, and some other matters touching the interests of Government that I might with advantage have referred to, I would ask that this letter, and its accompaniment may be attached as a supplement to my answers.

4. What I said as to the satisfactory results of the country-bred remounts did not refer to those purchased at four years old only, but to all that had been brought up for classing by committees up to date, and of these the greater number would be young stock purchased from 18 months and upwards.

5. Though the original order for purchase of this class of horse referred to those only of from 4 to 7 years old (with a few of 3 years old), still, after seeing two or three specimens that I had bought on my own responsibility in 1876, the late Director, "Sir Sam Browne," tacitly sanctioned the buying of a few of the younger ones as an experimental measure at each fair. And so it happened that this was done until 1879, when it was put a stop to by Colonel Couper. The return enclosed will show the Commission the extent to which this purchasing was carried.

6. I should, however, submit that the yield hitherto obtained is not to be taken as any criterion at all of what is to be expected, when the measures in progress for improving the native breeds have had time to bear fruit. It is to be remembered that the operations started with this object are now quite in their infancy, and considering this I think it will be admitted that the increasing scale of purchasing, as shown in the return, gives good promise for the future. Though I cannot altogether agree as to the propriety of the measures that are in course of adoption, believing as I do that too much trotter and half-bred blood is being brought to bear, and that such crossing with the country mares is too violent, still it cannot be denied that a considerable advance has been made, and that the show of good stock is steadily on the increase.

7. I am aware that dissatisfaction is expressed by some Bengal cavalry officers, at the difficulty of getting horses for their regiments now as compared with the old days. But there is this to be said that the standard for the Bengal cavalry now is infinitely higher than it used to be, and what would have been taken as a charger for a native officer in the Irregular Cavalry times would hardly pass as a remount for a sowar now-a-days. To be well mounted and cheaply mounted is not compatible, and if Bengal cavalry regiments wish to keep horsed as most of them now are, they must be prepared to pay on an average of from Rs. 230 to Rs. 250 for their remounts.

8. I do most strongly recommend the purchase of some young stock of from 2 to 3 years old for the army reserve; but to begin now with an indiscriminate buying up of all the young ones that could be got would, I think, be a most unwise step, for the country is not yet ripe for any such drain on its resources. What is wanted is some present encouragement and assistance to the breeders, very few of whom can afford to keep their stock till 4 years old, and hence they sell to dealers at a sacrifice to themselves and the animals. To begin with, if only one hundred 2 and 3 year olds were purchased, in addition to those of mature age, it would, I think, be quite enough to afford the necessary relief, and also be an earnest for further dealings in future.

9. I can, however, understand that difficulties exist in respect to the purchase of remounts generally this year. And with every desire to support the country-breeders, it may be that owing to the present glut of horses on hand, Government is not in a position to do so. It may be, too, that Government is already committed to buying more horses in other markets, and so the complication is increased. Under the impression then that this is most likely to be the state of the case, I now venture to suggest a scheme for reducing the numbers in depôt, which, in its operation, would be conferring an immense boon on a large body of military officers, and at the same time bring in a considerable sum of money to Governmert.

10. Ever since the formation of the Remount Department, the cry has been of the Bengal cavalry officers to be allowed to take out chargers, as do officers of the European mounted branches. But this indulgence has never been extended to them, on the score, as I have heard, that the numbers kept in depôts would not admit of it. But, however this may have been, it is very clear that matters are reversed now, for it seems that the supply is so much in excess of the demand that a temporary necessity has arisen for absorbing the surplus stock. I would therefore urge the advisability of this being done in the following way:—

"Throw open the depôts at once to all officers of the Bengal cavalry, the Punjab Frontier cavalry, and *all Infantry* mounted officers. Each officer to be allowed to select two chargers, on the same terms

as to payment as exist for officers of the European mounted branches; and to make their choice from amongst all the remounts which are 4 years old, barring only such as may be classed to horse artillery.

"The indulgence to be kept up for, say, six months, or until 300 horses had been taken out. But the rule now in force for each charger selected to require a special certificate of soundness before removal, should be entirely waived, or the object would be defeated. A remount once passed for the service should be a sufficient warranty; it is quite unreasonable to suppose that a horse sound enough to stand the wear and tear in the ranks is not sufficiently sound to do the parade work of a commissioned officer. Horses selected under this order to be *bonâ fide* the property of the officers selecting them."

11. I beg it may be understood that, all the suggestions made by me as to modes for raising the supply of remounts annually required, have been based on the assumption that three things have already been decided upon, *viz.*:—

I. To reduce present expenditure.
II. To avoid a large outlay on any new scheme.
III. To maintain one depôt only for the reserve.

And though, had circumstances been different and funds available, I should have preferred to submit a plan for a stud in the Punjab, it has been in view to the attainment of the objects above referred to and at the same time show a way for raising and keeping an efficient reserve that my attention has been directed.

12. I have said that if the Government desire to reduce the reserve to 1,000, it will be better to keep the number in one rather than in two depots. Why it would be better is—

First because by the outlay of a sum that would be trifling in comparison with the gain to be effected, this depôt could be made *better suited* for the accommodation of 1,000, or say up to 1,150, head, than it is now for the 800 head, which is the average number kept in it. (I submitted a statement in detail to the Director of Army Remount Operations on 29th of August last of the works to be done for the necessary extension of this depot.)

Secondly,—Hapur having developed a further disposition to disagree with walers,—it keeping a very heavy sick list, while this place remains quite healthy,—there is no advantage to be looked for in the permanent maintenance of Hapur as an alternative place for sending the remounts.

13. While writing this letter, I have heard from the Director of Army Remount Operations that only 26 country-breds of between 4 and 7 years old are to be purchased this year; but at the same time, an intimation of a later date has reached me direct from the Military Department (in the supposed absence of Colonel Couper, on casting tour), that the purchase of country-breds is restricted to 75 only. I do not gather from the last-named order that any young ones are included. But should the Government be hereafter induced to sanction the purchase of some younger stock (as I earnestly hope may be the case), I would submit that the mode to be adopted for their rearing should be that which has hitherto obtained at this depot and found to succeed well, *viz.*:—For 2-year olds liberty all day and night, weather and circumstances permitting; for 3-year olds liberty the same, but to come under the regular routine in respect to grooming and feeding. If uniform liberty is insisted on from the first, the change proves too violent after the careful tending that horses are accustomed to receive at the hands of the zemindars; but with the treatment described above, the young country-bred gradually hardens, and eventually turns out second to none in endurance and strength of constitution.

Return shewing result of country-bred purchasing since 1875-76.

Official year of purchase.	By whom purchased.	Ages at which purchased.						Total purchased on the year.	Remarks.
		4 years to 7 years		3 years.		2 years and under.			
		Number.	Average price.	Number.	Average price.	Number.	Average price.	Number.	
			Rs. A. P.		Rs. A. P.		Rs. A. P.		
1875-76	Major W. A. Roberts ...	8	413 0 0	2	413 0 0	1	413 0 0	11	Major Roberts gave his average on the whole number he purchased.
1876-77	Lieut.-Colonel H. C Smith	13	323 1 3	17	250 0 0	15	162 9 7	45	
1877-78	Ditto ditto ...	22	383 2 11	18	282 14 2	32	173 4 6	72	
1878-79	Ditto ditto ...	28	375 8 6	24	280 13 4	36	163 8 5	88	
1879-80 (April only) ...	Ditto ditto ...	15	398 13 10	1	300 0 0	...	.....	16	This number (16) is for the first fair of the current official year only, and after the buying of young ones had been stopped by Colonel Couper.
	Grand Total ...	86	377 1 10	62	277 8 9	84	170 0 9	232	

Memorandum shewing result of those of the above which, having attained the age of four years, have been presented to classing Committees.

Total number presented	Classification.				Rejected.	Remarks.
	Horse Artillery.	Field Artillery.	Medium Cavalry.	Hussars.		
135	9	39	18	64	5	This result compares favorably with that of any other description of remount presented to Committees.

Saharunpore Reserve Remount Depôt Office;
The 6th November 1879.

H. C. SMITH, *Lieut.-Colonel,*
Supdt., Reserve Remount Depôt, Saharunpore,
and Remount Agent, Upper Provinces.

Suggestions by MAJOR W. R. C. BROUGH, R.A., *on Remounts.*

The remounting of the artillery and cavalry in India is, I have no doubt, a matter of such great cost to Government, that I trust a propasal which seems to me to promise to lessen the expenditure, whilst providing a class of animals much wanted—a good riding horse for artillery and trooper for cavalry—may not be out of place.

When the Government studs were broken up, it was, I believe, hoped, in distributing the mares, that their produce would be likely to furnish remounts for the service, and that others would soon be procurable in the Punjab after the great efforts made of late years to encourage horse-breeding in that province. Present promise shows that, unless some change is made, these expectations can never be realized. It is not that the young stock are bad; far from it; indeed, I think any one who has been present at the various shows, fairs, &c., will bear me out in saying that foals and yearlings are, as a rule, not alone good, but that many of them, in size, power and action, would compare favourably with animals of their own age at home; but they will also have remarked that the young stock have fallen off in every good quality with increasing years till a four-year old, who is either an under-sized weed or a soft fat, ill-shapen animal, whose curby hocks, inties elbows, and utterly defective action, quite unfit him for the service, is the result.

To all who have seen a little of breeding and rearing of horses at home, and who have watched the systems pursued out here, the cause of this is not far to seek. The young stock are, early in life, deprived of their liberty, and half-starved or stall-fed, till of a saleable age. The well-to-do native horse-breeder, once the yearling neglects its hobbled mother and begins to damage his almost unfenced fields, ties it up with outstretched heels at the steep-floored and probably dark and unventilated stable. It is not starved but often gets its food and water irregularly; it is never groomed, and the stable is seldom cleaned out, the steep floor being trusted to. Towards show time, if intended for exhibition, lots of massalahs and green food and some cleaning soon make the two-year old glossy and pig fat but fail to develop the unexercised young limbs or lungs. Grown a little older it learns the pleasure of standing hours with its head tied in by a hard and sharp bit; and as, if a horse, he is now found to be troublesome without exercise, he is in the spare evening time galloped nearly at speed for a few hundred yards up and down the uneven country road or village lane, stopped by jerk of the cruel bit and wheeled short round at each turn, it is no wonder that the seeds of future unsoundness are sown. A filly being quieter and as likely to be retained, more of a family pet, is only, after standing months in the stable asked to carry her owner twenty *coss* in the day on a visit and back again next day to, footsore, lame all round and almost broken down, resume her stable rest. The poor native, on the other hand, has no means of stable feeding his yearlings, ties his legs together, and having thus prevented it trespassing, leaves it to pick up a precarious livelihood on the grass to be found on the roadside or on barren land. It ages (I cannot say grows up) an under-sized weed devoid of action,—if a horse, the vicious victor of many battles; if a mare, worn out from having given birth to still more miserable foals (sired by village tattoos) at the earliest possible age.

I know that every effort has been made to induce natives to castrate the colts and rear both colts and fillies on the liberty system pursued at home; but have they or will they try it? I think not, for the simple reason that they now know horse-breeding *and rearing* for the service alone cannot pay them, as I will venture to say it could not do any one man attempting it either at home or in India.

The home temptation, utterly wanting in India, of a "big" price for the making of a first class hunter or fashionable carriage-horse, induces many a well-to-do man to rear horses to three and four years old, when the failures in shape, power, or extreme action often fall into the hands of the regimental dealer; but though horses are now purchased into the service at from £50 to £55 and three to four years old, the dealer is often forced to buy younger and keep over. Many a man has a work-mare and breeds from her, but has not grass land sufficient to allow him to keep the young things very long, and it pays him better to sell cheap at once. These young things are, if well grown and well shaped, picked up in hundreds by the dealers, and bar accident, a run of a year or two at grass passes them into the service and leaves a handsome profit to the dealer. It strikes me that native breeders are somewhat in the position of the small farmer and breeder at home. Few of them keep more than one or two mares which they use for riding and from which they breed. They have no fenced grass runs in which to let the young things grow up, and they now know as well as any one that their present system of rearing cannot turn out horses for which they are likely to obtain the Government price. Could we even overcome prejudice, it would not pay any of them to fence and cultivate grass for the few young things that they have, and many breeders have told me that, unless they find that they can dispose of their stock younger, they must give up breeding.

Government might, I think, by a not costly experiment, assist them and at the same time prove that it is possible at small expense to rear the greater portion of a selected lot of young horses, so that they shall increase with years in size, power and action, and prove a source of profit. In parts of the Punjab there are large grass rukhs, some of which are now made over to the mounted corps and commissariat department for supply of grass to the Government animals. If rumoured changes are carried out, perhaps close to Meean Meer a space of rukh land, well watered, and the grass of which has been cared for, may be vacant, and perhaps the Punjab Government could still spare it. A sum to fence the ground (not an expensive job), purchase the young stock, and pay a few care-takers, would be all the outlay at first. The colts might be castrated at, and the superintendence arranged for from, Meean Meer. Grass, aided during the winter months by some of the green stuffs then easily procurable, to be the young horses' only food. A year would probably prove the value of the experiment and show whether it would be possible by much the same means adopted at home to grow the good colt of this country into a trooper. If success followed a few years' perseverance, perhaps private enterprise would start similar establishments; but if not, and Government found the horses cheap and good, it might continue the experiment on a larger scale to the encouragement of the breeding of the better class of horses in the Punjab and North-West,—breeding which, without some such encouragement, it seems, will die out.

W. R. C. BROUGH, *Major,*
Royal Artillery.

APPENDIX LX.

Despatch from Her Majesty's Secretary of State for India, No. 180, dated the 26th June 1879, regarding the Veterinary Department.

No. 180 (Military), dated India Office, London, 26th June 1879.

From—The Secretary of State for India,

To—The Government of India.

I have received and considered in Council Your Lordship's despatch No. 326 of 1878, conveying the proposal of Your Excellency's Government that Clause 88 of Army Circulars, dated 1st May 1878, "Veterinary Department," should be made applicable to India.

2. I observe that the Accountant General, Military Department, calculates that the cost of giving effect to this warrant will involve an additional charge of Rs. 19,382 yearly.

3. Being satisfied that it is really necessary to hold out the greater inducements offered by the Royal Warrant to attract candidates to this service, I approve of the proposals in your letter under reply, but it is essential that in doing so no increased expenditure, which can possibly be avoided, shall thereby be incurred.

4. In this view I enclose copy of a communication received from the Horse Guards,* in which the Principal Veterinary Surgeon to the Forces puts forward his opinion that the existing establishment in India might be reduced by at least one-fourth, and I recommend the point to the careful consideration of Your Lordship's Government, in view to an early decision as to the reductions which can be immediately effected.

* Dated 17th April 1879, and enclosure.

No. 6017-588, dated Horse Guards, War Office, 17th April 1879.

From—Colonel C. H. BROWNLOW, *for* Military Secretary,

To—The Under Secretary of State for India.

I am directed by the Field Marshal Commanding-in-Chief to transmit herewith, for submission to the Secretary of State for India in Council, copy of a letter from the Principal Veterinary Surgeon, relative to the organization of the veterinary department in India.

I am to draw attention to the statement made by Mr. Collins, respecting the number of veterinary surgeons in Madras and Bombay respectively.

Dated War Office, Pall Mall, 14th April 1879.

From—J. COLLINS, Esq., Principal Veterinary Surgeon to the Forces,

To—The Military Secretary, Horse Guards.

I have the honor respectfully to request that you will bring the following subject to the notice of His Royal Highness the Field Marshal Commanding-in-Chief.

In May last a Royal Warrant was published which improved the pay, &c., of the veterinary surgeons of the army on home service. The warrant was published, to a great extent, on account of the growing unpopularity of the department generally, which deterred candidates from offering themselves for admission. A considerable part of this unpopularity was due to the requirements, pay, &c., for service in India.

It appears, however, that up to the present time no corresponding move on the part of the Indian Government has been made to improve the pay, &c., of the veterinary officers serving in that country; in this respect their position remains absolutely unchanged.

When the warrant first appeared, I succeeded in completing the establishment, as much was expected from it, but of late the applicants have again fallen below the number of vacancies. Considering that half of a veterinary surgeon's service must of necessity be passed in India, including those who join under the ten-years' rule, it is little wonder that they hesitate about entering when the pay for five years out of the ten remains the same as before the warrant appeared.

For many reasons Indian service is at present very unpopular in the department generally, and some means should be considered in order that the causes may be removed. If I may be permitted, I would make a suggestion for the serious consideration of the Indian authorities. Having served 12 years in India, six as an Inspecting Veterinary Surgeon, I can with the more confidence do so.

The peace establishment of veterinary surgeons for India is, all told, 72. I have no hesitation in saying that this number is excessive, and that by a judicious reorganization a considerable reduction might be made without in any way impairing the efficiency of the department.

In many stations in India where there are only one or two batteries of artillery, a resident veterinary surgeon is unnecessary. If a veterinary surgeon visited these stations once a month to make a sanitary inspection, perform operations, give advice as to the treatment of sick and lame horses, &c., it would amply suffice. With railways available, one veterinary officer could embrace within his district several stations, each of which now possesses a resident veterinary surgeon.

A reference to the comparative number of veterinary surgeons on the establishment of Madras and Bombay will show at once the necessity for some re-organization. Madras has 19, whilst Bombay

has only 9, and yet, with the exception of an extra British cavalry regiment in Madras, the strength of the mounted forces of the two presidencies does not materially differ, and there are no complaints of the paucity of veterinary surgeons in Bombay.

With a reduction in the establishment, which, by a judicious distribution, I estimate at one-fourth, liberal terms could be offered to the department in India, and a considerable saving be effected to the country.

Veterinary surgeons from India complain that, unless on medical certificate, they have, unlike other officers, great difficulty in obtaining leave in the hot weather. The hot season is usually a healthy one for horses in India, and probably at no other season could the veterinary surgeon's services be so well spared. A month or two at the hills would often prevent the necessity of a medical certificate to Europe.

In suggesting a reduction, I am, of course, speaking of the peace establishment. In time of war extra veterinary aid would be required for the increased number of transport animals which are at that time entertained.

APPENDIX LXI.

Letter from Staff Veterinary Surgeon J. H. B. Hallen, General Superintendent of Horse-breeding Operations, No. 334M., dated the 4th October 1879, relating to the Veterinary Department in India.

No. 334M., dated Simla, 4th October 1879.

From—Staff Veterinary Surgeon J. H. B. Hallen, General Superintendent, Horse-breeding Operations,

To—The Secretary, Army Organization Commission, Simla.

Adverting to paragraph 4 of your office letter No. 260, dated 15th August 1879, I have the honor most respectfully to submit, for the consideration of the Army Organization Commission, the following remarks relative to the veterinary department of India.

2. The want of a local veterinary department in India is experienced.

3. Even now, with the strength of veterinary officers serving in India, borne on the British veterinary department, a difficulty is found in supplying the services of veterinary surgeons for special duties.

4. If the strength of the British veterinary department be reduced, as now rumoured, then the dearth of veterinary aid in connection with duties, noted below, will be more pressing.

5. The special duties may be enumerated as—

(*a*)—Inspection of horses and cattle belonging to Government postal services and Government bullock trains.

(*b*)—Civil veterinary duties, such as the inspection of stock in districts, where plagues that frequently affect animals, may be raging, and rendering veterinary aid in connection with prevention and cure of diseases.

(*c*). Duties under the department of horse-breeding operations.

6. The heavy pecuniary losses that now annually occur throughout India from the spread of diseases amongst animals, would, in a great measure, be prevented, were veterinary inspections and aid duly carried out and rendered.

7. In the event of veterinary colleges and schools becoming established, a sound knowledge of diseases of stock will be generally disseminated by the providing of native veterinary surgeons.

8. But it is expedient to have an Indian veterinary department supplied with European veterinary surgeons to be appointed to the more responsible positions in connection with local veterinary requirements.

9. The necessity of an Indian veterinary department is as urgent as that of an Indian medical department.

10. The officers of the latter having good inducement to enter the service of the State, represent a body well able to undertake the responsible duties devolving on them.

11. And were the Government to offer similar inducements to European veterinary surgeons to enter an Indian veterinary department, doubtless would such a department become accordingly composed of officers willing to make India their home for the best portion of their lives, and to do their utmost in furthering the veterinary interests of the State.

12. As at present obtains the few veterinary surgeons remaining in the old Indian veterinary department, who have been all their service in the tropics, are not granted so much pension as those veterinary surgeons of the British list, many of whom never served but at home.

13. This subject is one of so serious moment to India, as a great agricultural country, that I most respectfully submit my opinions, with a hope that they may receive the earnest consideration of Her Majesty's Government.

14. It is not with the expectation that I may individually receive any benefit that may accrue to veterinary officers under the *regime* of a new Indian veterinary department, but in the interests of India, and the hope that the country may become supplied with veterinary surgeons ready to work in India for the best part of their lives that I, with deference, plead the absolute expediency of my

suggestions being acted up to, in order that the Government may foster agriculture with reference to affording it veterinary aid.

15. Instances where the want of veterinary advice, leading to pecuniary loss on the part of agriculturists and indirectly to the revenue of the State, are of daily occurrence.

16. As regards the department of horse-breeding operations, the fact of there being only three veterinary surgeons in charge of upwards of 300 valuable stallions, the property of the State, distributed in lots varying from 1 to 4 in number, at 106 different stations, within the area of Cawnpur district in the east, Derajat district in the west, Bannu in the north, and Rajanpur in the south, affords serious conjecture that the due care and superintendence of such valuable animals, and the duties of the department, cannot be exercised.

17. Moreover, as at the present time, two of the three veterinary surgeons may shortly have to leave their posts on account of ill-health, and the obtaining of others to perform the duties becomes a question, as the special work of the appointments cannot be learned under two years' experience, the state of the department cannot be considered satisfactory.

18. I may mention that a 1st class veterinary surgeon of the British veterinary department, who has been officiating as Assistant Superintendent, Horse-breeding Operations, for two years, does not care to remain in India, and intends returning home to England to duty.

19. Indeed, as long as India is dependent on veterinary surgeons borne on the strength of the British veterinary department, who, as a rule, must always have, after a time, a desire to return to posts of duty open to them at home, so long will the country not retain veterinary surgeons of local experience.

20. The Indian medical departmental officer having been offered good inducement to make India his home for 20 to 35 years of his life, determines to remain at his post, and performs his duties as a servant of Government in a creditable manner, and thus, in time, obtains posts of greater responsibility and emolument. He knows that he must lie on the bed that he has selected himself.

21. But the veterinary departmental officer on the British list, eligible for home as well as Indian service, never can settle down to Indian life in the same way that the officers of the old Indian veterinary department always had to make up their mind to do.

No. 418M., dated Camp Lahore, 18th November 1879.

From—Staff Veterinary Surgeon J. H. B. Hallen, General Superintendent, Horsebreeding Operations,

To—The Secretary, Army Organization Commission, Simla.

In continuation of this office letter No. 334 M., dated 4th October 1879, on the subject of the necessity of establishing a local veterinary department, I have the honor to request that the following may be inserted as a postscript to that paper:—

P. S.—Lastly, it is urged that the very valuable property, represented by the Government Commissariat animals, should receive due veterinary care, which, hitherto, has been deemed unnecessary, and consequently the treatment of the sick and lame Commissariat animals has been such as to show the necessity of a Martin's Act for India. Moreover, the pecuniary loss incurred by these animals not receiving veterinary care has, doubtless, been enormous. Veterinary surgeons of a local veterinary department would be available for the medical charge of Commissariat animals.

APPENDIX LXII.

Memorandum from Quarter Master General in India.

Resumé of correspondence regarding the preparation of tables shewing the strength, equipment, &c., of units of the various arms when proceeding on active service beyond the Frontier.

Owing to pressure of other work, no action was taken on Military Department No. 262S., dated 9th October 1875, until May 1876, when Government were informed, in Quarter Master General's No. 1725A., that in order to have a basis upon which to prepare the tables required, it would be necessary to authoritatively lay down the strength and composition of each unit when proceeding on service; and a statement of the strengths the Commander-in-Chief would recommend was submitted at the same time.

In reply, Military Department No. 629S., dated 26th June 1877, accepted the suggested war strength of artillery and sappers and miners, but proposed certain modifications as regards the other arms; and sanctioned the assembly of a Special Committee to consider the subject and prepare the tables.

The Committee, under the presidentship of Colonel C. C. Johnson, Deputy Quarter Master General, was accordingly assembled, and its proceedings, copy annexed, were submitted to Government with Quarter Master General's No. 4234, dated 3rd November 1877.

In reply, Military Department No. 618S., dated 18th June 1878, suggested certain modifications in the tables prepared by the Committee, and requested that they might be completed accordingly; also, that a fresh set of tables might be drawn up on the conditions of a supposed war

strength of native cavalry and infantry, as recommended by the Commander-in-Chief in Adjutant General's No. 1803, dated 1st June 1878.

Tables of equipment for units of each arm of the service (copies annexed) were then prepared in this office and sent to all heads of departments and officers commanding regiments, batteries, &c., for review, and in August last a Committee was assembled under the presidentship of Colonel C. M. MacGregor, Deputy Quarter Master General, to complete the tables for submission to Government; but the work of this Committee has been interrupted by the president and some of the members being ordered on service in Afghanistan.

During the late operations in Afghanistan, the organization of divisions and brigades was assimilated to the Home system as much as the constitution of the Indian army would admit, but with this exception no action has been taken on Secretary of State's despatch No. 92, dated 1st April 1878.

Memorandum from Military Department.

In June 1877, the question of the compilation of tables showing the organization, equipment, transport, &c., required for each unit of the service was referred for the consideration of a Committee.

The tables submitted by this Committee were subsequently forwarded for report to all departments concerned, as well as to the Governments of Madras and Bombay.

These reports as received have been transmitted to the Quarter Master General, in view to the preparation of a complete set of tables. The despatch from the Secretary of State, No. 92 of 1878, was also sent for the opinion of His Excellency the Commander-in-Chief.

Instructions regarding the form in which the tables were to be compiled were conveyed to the Quarter Master General in Military Department No. 618, dated 18th June 1878. The subsequent, correspondence refers to minor points, but no tables have up to the present been submitted.

APPENDIX LXIII.

Field Equipment.

Correspondence regarding the work done by the Committee appointed to consider and report on Field Equipment for each arm of the service in India.

Paper on the Field Equipment of Officers, by Major A. A. A. Kinlock, Deputy Assistant Quarter Master General.

No. 15, dated Simla, 6th August 1879.

From—Captain E. H. H. Collen, Secretary, Army Organization Commission,

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

I have the honor to solicit that the Government of India will be pleased to move His Excellency the Commander-in-Chief to appoint a Committee to consider and report on Field Equipment for each arm of the service in India.

2. The Army Organization Commission beg that the report may be referred to them as soon as possible.

No. 558 S-B, dated Simla, 18th October 1879.

From—Captain T. Deane, Offg. Depy. Secy. to the Govt. of India, Military Department,

To—The President, Army Organization Commission.

In reply to your letter No. 15, dated 6th August 1879, requesting the assembly of a committee to consider and report on Field Equipment for each arm of the service in India, I am directed to forward, for your information, the accompanying letter,* with enclosures, from the Adjutant General in India, and to state that, under the circumstances therein explained, the assembly of the Committee is for the present postponed.

* No. 5025D, dated 14th October 1879. (Return requested).

No. 5025D., dated Simla, 14th October 1879.

From—Major-General Sir P. S. Lumsden, K.C.B., C.S.I., S.C., Adjutant General in India,

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

With reference to your letter No. 309S.-B. (Organization), Equipment, dated 7th August 1879, directing the assembly of a Committee for the purpose of considering and reporting on Field equipment for each arm of the service, I am directed to forward, for the information of Government, copies of the correspondence noted in the margin, and to state that, as all the officers appointed to form the Committee have left Simla, except Captain A. D. Anderson, Royal Artillery, the Commander-in-Chief considers the proceedings should be suspended.

* Letter No 80, dated 19th September 1879, from Captain Anderson, R. A.
Letter No 6766A., dated 9th October 1879, from the Quarter Master General in India.

No. 80, dated 19th September 1879.

From—Captain A. D. Anderson, Member of Committee on Field Equipment,

To—The Adjutant General in India.

In reply to your No. 4337D. of this day's date, I have the honor to state, for information, that the Committee on Field Equipment had not by a long way completed its work; they had gone generally into the following and equipment of troops in the field, and were commencing to check off the European infantry tables when the members left.

2. Each member taking his own particular branch of the service.

3. It would, I believe, be quite possible for Major Wood (European Cavalry) and me (Artillery) to give our respective tables embodying the decisions so far arrived at; but as I deem it to be imperative that the same scale on every point should guide the tables throughout, and as there remained so many points of importance to be taken up and marked out in committee, I submit that anything we might draw up would be very incomplete, and would require much alteration when the tables were being drawn up in a collective form.

4. The Committee were going as fully as they could into—

Patterns of tents;
Samples and weights of cooking pots;
Water bottles;
Clothing;

and numerous other points calling for reform, and of the utmost importance, but upon which no decisions had been finally recorded; and although other officers could be appointed to carry on the work already begun, I take the liberty of suggesting that I believe it would be for the good of the service if the labours of the Committee were postponed till next summer, when, possibly, the president and some of the members may have returned, or, anyhow, a full Committee may be available to complete the work thoroughly, for I submit that the tables should be issued in the completest and most uniform manner possible.

No. 6766A., dated 9th October 1879.

From—The Quarter Master General,

To—The Adjutant Geueral in India.

In returning the annexure of your letter No. 4123D. (Equipment), dated 23rd September 1879, I am to state that His Excellency the Commander-in-Chief concurs in the opinion therein expressed, that the Proceedings of the Committee convened on Field Equipment should be suspended.

No. 482, dated 24th September 1879.

From—Captain E. H. H. Collen, Secretary, Army Organization Commission, Simla,

To—The Quarter Master General in India.

I am desired to request that, under the orders of His Excellency the Commander-in-Chief, you will be so good as to inform the Army Organization Commission of the progress made by the Committee lately assembled on Field Equipment, furnishing the Commission with any conclusions at which the Committee may have arrived.

Memo. by Captain M. J. King-Harman, *Deputy Assistant Quarter Master General,—No. 6481A., dated Simla, 29th September 1879.*

Forwarded for the information of the Secretary, Army Organization Commission, with reference to his letter No. 482, dated 24th September 1879.

No. 162, dated 26th May 1879.

From—Major Fred. Lance, 2nd-in-Command, 2nd Punjab Infantry,

To—The Assistant Quarter Master General, Field Force, Kandahar.

In reply to your memorandum No. 194K., dated 1st ultimo (Field operations—Transport), forwarding a copy of a letter, No 892F. C., dated 16th March 1879, from the Quarter Master General in India to Lieutenant-General Stewart, K.C.B., commanding Field Force, calling for opinions regarding the suitability of the scales laid down in his No. 5949A. of 8th November last, for the equipment of regiments serving in Afghanistan, I have the honor to forward a copy of those scales, as far as they refer to native cavalry, with remarks on each item.

These remarks are founded on the experience of this expedition, and have been carefully framed in consultation with my British and native officers and establishments—those in the Medical Department—in which I concur, on the practical experience of the medical officer of the regiment, Surgeon C. Maccartie.

Recommendations of the Officer Commanding 2nd Punjab Cavalry on the scales laid down for the equipment of regiments serving in Afghanistan, dated Camp Kokeran, 26th May 1879.

Items.	Sanctioned.	Recommended.
Camp Equipage.	lbs.	
Native officers	40	*44 lbs. each.*—Such being the weight in my regiment of a sowar's tent, which can always be made available, whereas in 40lbs. tent is unknown.
„ doctors ..	40	
„ cavalry, per soldier ...	12 to be arranged regimentally.	*Per 2 Soldiers and 1 Syce, or Sowar's tent.*—I believe the efficiency of a regiment is best maintained by allowing one tent (as well as one pony and one syce) *between* 2 sowars, and it has been found very convenient during this expedition. Their tent shelters themselves, their uniform, and other baggage, and their horse appointments, besides their syce, his property and his pony gear, and there is not much room to spare.
„ „ per follower ...	10	*Sufficient for all except Bunnahs and the Bazar Chowdry.* See following items.
„ „ Bazar, per shop ...	None ...	*The equivalent of one lascar pâl, namely, half a camel load.*
„ „ Chowdry ...	None ...	*A sowar's tent.* The Chowdry of a cavalry regiment is an important and busy man, and requires tent to himself.
Followers, 50 per cent. Sepoy of 2 pâls.	...	*40 per tent sepoy of two pals,* as more cannot be accommodated with their winter bedding. This item is supposed to refer only to hospitals (Kahars, &c.), as other followers, such as officers or troop servants, are provided for above at 10 lbs. each.
Guards, 2 lascar pâls per regiment, native	...	*4 Lascar pâls per regiment.*—A regiment detached by itself has to furnish a front rear and 2 flank, in all 4 guards. Two are provided for, but two have to be sheltered in sowars' tents and during halts, *i. e.*, in a standing camp the daily relief has to strike and shift its tent. Moreover, both occupants of a tent are seldom on duty together, so that one man has to seek shelter elsewhere. Guard tents are also useful for detached pickets when not required for guards. I consider the following sanctioned items sufficient:—Commanding officers 150 lbs; all other officers 80 lbs; native hospital for 12 sick, calculated at 10 per cent. on strength, 1 lascar pâl; offices, regimental, 150 lbs. and messes, one lascar pâl for every 8 officers, or for each officer 36lbs.
Baggage.	lbs.	lbs.
Commanding officer ...	120	*150* } being 30lbs each, extra for bedding.
All other officers	80	*110* }
Native officers ...	40	*60* being 30lbs for bedding of—
		1 Durrie ... 4 } and for uniform (see note on non-commissioned officers and men) ... 10 1 Under-rezaie ... 6 } 1 Over „ ... 12 } 1 Blanket ... 8 } and cooking utensils ... 20 Total ... 30 Total ... 30
Native doctors ..	40	*60lbs.* as for native officers, for although they have no uniform, they carry changes of clothes which the native officer carries on his pony, and a native doctor has no baggage pony. Separate cooking utensils are used by, and appear desirable for, native officers and doctors.
Native non-commissioned officers and men, including artificers.	20	34lbs. per soldier, being 24lbs. for bedding of— 1 Durrie ... ... 4 } and for uniform of soldiers or clothes of artificers ... 10 1 Under-rezaie ... 6 } 1 Over „ ... 10 } 1 Blanket ... ... 4 } Total ... 24 Total ... 10 44lbs. per artificer, being 10lbs. in addition to the above, for cooking utensils
		Note.—The carriage of uniform is necessitated if the men are allowed their preference to work in their summer coats (with extras underneath) puttus and shoes, and to carry their cloth coats and boots, which are expensive and best cared for with their owners; they are occasionally worn by order, as on our entry into Candahar.
Medical stores per regiment ...	...	For a six months' supply for a full regiment, with its camp-followers.
Hospital furniture ...	210 } 475	lbs. lbs. lbs.
Hospital equipment ...	265 }	Furniture ... 332, namely— 24 Blankets ... 144; Tincture box .. 90; Table and Splints ... 98 — 332
		Equipment ... 820, namely— 1 Pair camel trunks, empty .. 176; 2 Pairs mule trunks, empty ... 212; Medicines, Surgical Instruments, and Hospital comforts 432 — 820
		With mule carriage, 2 mules will carry the furniture and 4 mules the equipment. Camel trunks should be abolished and the Peshawar mule "Yakdan" substituted for them, and also for the heavy unwieldy mule boxes, of wood clamped with iron, in present use.
		Total ... 1,152
		A pair of Peshawar "Yakdans," properly fitted with light wooden or leather partitions, are as strong as, and a quarter of the weight of, the present mule boxes.

Recommendations of the Officer Commanding 2nd Punjab Cavalry on the scales laid down for the equipment of regiments serving in Afghanistan, dated Camp, Kokeran, 26th May 1879—continued.

Items.	Sanctioned.	Recommended.
Veterinary stores per regiment ...	3 mules.	*Or one camel.* Mules were not, when the regiment started on this expedition, and generally at short notice are not procurable.
Followers	10lbs. each ...	*26lbs. for Soldiers' Syces*, namely, 20lbs. bedding and 6lbs. cooking utensils, as most are of low caste and cannot use their master's dishes. Their changes of clothes are carried on their pony. 30lbs. each for other followers, being 20lbs. for bedding, of 1 Rezaie 10lbs., 1 Blanket 4lbs., 1 Numdah 6lbs. lbs. 6 cooking utensils. 4 change of clothes. Total ... 30
„ Dhobis	None ...	*54lbs. each*, being 30lbs. as above and 24lbs. extra for "iron" and other apparatus.
„ Sikligers	None ..	*50lbs. each*, being 30lbs. as above and 20lbs. extra for implements.
„ Mochis ...	None ..	*40lbs. each*, being 30lbs. as above and 10lbs. extra for implements.
Stable gear, per horse of officers of cavalry.	15	44lbs. per horse of officers of cavalry, being— lbs. 1 Jhool ... ... 16 1 Blanket ... . 8 Stead and heel ropes and pegs roller, nose-bag, brush and curry comb and watering bridle ... ... 20 Total ... 44
Stable gear per horse of native ranks.	None ...	*16 lbs.* for jhool. Nothing else is here entered, for the rest of the stable gear is carried on the pony whose load is thus made up— lbs. Pony's Jhool ... ... 10 2 Horses' head and heel ropes and pegs, rollers, brushes and combs, watering bridles and grass-cutters' tools .. 26 3 Nose-bags and blankets .. ... 38 Syce's troops without bedding .. 4 2 Sowars' troops without bedding ... 14 92 Add—Syce on top-say ... ... 126 And occasionally, one day's rations for 3 men and 3 animals .. ... 28 Total .. 246, or say 3 maunds.
Ditto per horse of Native Doctors, Clerk, Munshi and Chowdry.	None ...	*30 lbs. per horse.*
Officers per regiment ...	80 lbs ...	400 lbs. This is the weight of my office, including Adjutants, Quarter-masters and Squadron Commanders' English and vernacular records. An office on the march as steadily increases as in cantonments. Dockets or brief memoranda should for the time being be admissible in all departments, whereas full or half sheets of foolscap are insisted upon even when the subject of report or return can be put in a few words. The demand for returns is enormous and never abates. General orders, *Punjab Gazettes*, and circulars of all kinds are constantly received, although nothing in them may concern the Regiment receiving them, or be of any use at such times. I recommend that there be one or more Central offices, such as the Assistant Adjutant-General's or Brigade Major's in which all necessary returns should be compiled from brief memoranda furnished by regiments, and to which only should one or two copies of General Orders, circulars, &c., be sent, whence they can be circulated for notes to be taken by regiments of their numbers, dates and pages of such portions as concern them, and then be returned to and filled in the central office. Copies being applied for from the issuing office on the return of the regiment to cantonments.
Ditto Clerk and Munshi ...	None ...	*70 lbs. each*, being 30 lbs. for bedding, 20 lbs. cooking utensils 20 lbs. change of clothes.
Armourers' tools and stores ...	1 mule per Regiment.	*2 Camels per Regiment*, to include the entire requirements of the Armourers' and forge workshops, and the camp equipage and baggage of an establishment of 5 blacksmiths who, in my regiment, do all the work of both; and add the manufacture of horse shoes and nails.
Arms of sick	Half camel per company. No mention of cavalry.	*Half camel per troop.*
		I consider the following sanctioned items of baggage sufficient:—Cooking utensils, native troops, 160 lbs. per troop and 10 lbs. each for all officers; and mess stores, all officers 40 lbs. each; Quarter Master's stores 800 lbs. per regiment.
Followers.		
For every 3 officers ..	1 extra servant ...	*And 2 servants for mess.* Nine officers are entitled to 3 extra servants, who must be a dhobi, a bhisti, and a sweeper. Constant detached duties disturb temporary arrangements, and 2 permanent mess servants would be convenient.

Recommendations of the Officer Commanding 2nd Punjab Cavalry on the scales laid down for the equipment of regiments serving in Afghanistan, dated Camp Kokeran, 26th May 1879.—(concluded.)

Items.	Sanctioned.	Recommended.
Native officers	1 servant to 2 ...	One servant each. As single native officer's parties are frequently detached for some time on reconnaissances, searching for supplies, &c.
Native doctors, clerk, munshis and chowdry	none	*One horse and one servant thereon each.*
Cooks, per company	2, no mention ..	*2 per troop.*
Native Troops	of cavalry ...	
Puckahs and bhistis per company, native troops	1, no mention ... of cavalry .	*4 per troop.*
Sweepers per troop	1	*2 per troop* for latrines and cleaning up camp before marching, and keeping it cleaned when halted.
Barbers and dhobis	none ..	*One of each per troop.*
Doolis with 6 bearers each	none	The following arrangements for the carriage of sick are recommended:—
Dandis with 4 Bearers each for 10 per cent of native troops, exclusive of mates		For 10 per cent. soldiers. — for 5 per cent syces. — For 5 per cent. of other followers. 3 per cent. on their own horses. — 3 per cent on their own ponies. — To be carried in Kujawas. 3 per cent. on Kujawas. — 2 per cent. on Kujawas. 4 per cent. on Dhoolis and Dandis, of which 6 should be Dhoolis Thus, doolis and dandis on the above calculation, and Kujawas for 3 per cent. soldiers . 2 per cent. syces ... and 5 per cent other followers .. } are recommended. and doolis for fracture and other serious cases are considered indispensable.
Hospital establishment ...	As per regulations for field service	These vary "according to the nature of the service," but the peace establishment would meet all requirements: it consists of 2 hospital assistants, 1 dresser, 1 bhisti, and 1 sweeper.
Bazar establishment ...	2 per cent. on strength of regiment, selection left to commanding officers	One shop per troop and 3 men per shop, for with less the distribution of supplies and the accounts thereof cannot be arranged. — and in excess thereof 1 Chowdry. 1 Weighman. 2 Tailors. 2 Butchers.
All artificers and workmen absolutely necessary for making repairs are to be taken.		Under this head I have included 1 mochi and 1 sikligur per troop, and a forge (and armourer's) establishment of 5 men. I consider the following sanctioned followers sufficient: All officers, each one personal servant and two per each authorized charger; grass-cutters, one per horse or one and a pony per 2 horses,; muleteers one to 3 mules, and camelmen, one to 4 Commissariat and one to 3 regimental camels.

T. G. KENNEDY, *Colonel,*
Commanding 2nd Punjab Cavalry.

Paper on Field Equipment of officers by MAJOR A. A. A. KINLOCH, *Deputy Assistant Quarter Master-General.*

1.—Necessity for authorized field equipment for officers.

The first thing that nearly every officer who was ordered on service for the late Afghan campaign proceeded to do was to discard nearly the whole of his uniform and adopt some other dress and a new equipment varying according to individual tastes.

The result was that every one wore "fancy dress," and it was quite impossible to tell the rank of an officer, or even what branch of the service he belonged to.

Some of the costumes adopted were neat, serviceable, and soldierlike; others were only remarkable for the pains which the inventors had apparently taken to make themselves look as unlike soldiers as possible.

This, I consider, very objectionable in every way, and I think that a service dress for officers should be authorized, and no departure from the regulations permitted.

In addition to a uniform dress, there ought also to be a regulation equipment, and every officer should be obliged to keep himself provided with every requisite for taking the field at the shortest notice.

The object should, of course, be to have the whole equipment as light, portable, and complete, as possible.

The effect of a regulation equipment would be not only to save trouble and expense to officers, but to considerably facilitate transport.

Nothing causes more delay and inconvenience in loading animals than the existence of loads of all shapes, sizes, and weights.

2.—Dress.

2. First, to consider the question of dress.

There is no doubt that "khakee" is the only color for service, and each officer should possess two warm and two light suits.

The material for the warm suits should be strong serge; for the light suits, cotton drill.

3.—Coats.

3. The Norfolk jacket is the most comfortable and serviceable style of coat, but it should be cut plainly, not with a number of unnecessary and unmeaning pleats.

Pantaloons are better than trowsers, as they can be conveniently worn either with gaiters, long boots, or shooting boots, and "putties."

4.—Pantaloons.

4. For mounted officers the warm pantaloons should be made of Bedford cord instead of serge.

5.—Badges of rank.

5. The badges of rank should be invariably worn on the collar of the coat by all field officers.

Stars and crowns of silver would be much more convenient and durable than the tinsel badges usually worn.

6.—Distinguishing mark.

6. All officers should wear some plain, but not too conspicuous distinguishing mark, say a gold shoulder cord.

7.—Staff officers, distinguishing mark.

7. Staff officers should wear some mark by which they would be at once recognized. I know of nothing simpler than a small silk flag, about nine inches square, attached to a light riding cane. This can be carried in the hand, or struck in the boot when not required. Distinguishing colors should be adopted for the different divisions and brigades.

8.—Head dress.

8. Personally I prefer the turban to any other head dress. Nothing is more comfortable, a better protection from the sun, or looks better.

A khakee covered helmet, which should be as light as possible, and a forage cap, also with a khakee cover, will probably be more generally approved of.

9.—Boots.

9. After a long trial, I am convinced that nothing is so good as the "Elcho" boot, which combines all the advantages of a riding and walking boot. It can be taken off or put on in a moment, however wet; it most effectually keeps out all dust; it is as well adapted for riding as the regulation long boot, and it is most comfortable for walking in, even on the roughest ground. The boot should be made of brown leather, which is more easily cleaned, and looks better with khakee than black leather.

Three pairs of such boots should be taken on a campaign. They should, of course, be of the very best materials and workmanship—two requisites which it is difficult to obtain in India.

10.—List of clothes, &c.

10. In addition to four suits of clothes each officer should possess—

1 Great coat.
4 Flannel shirts.
1 Cardigan waistcoat.
1 Balaklava cap.
8 Pairs woollen socks.
12 Pocket handkerchiefs.
6 Strong towels.

Enamelled iron wash-hand basin with leather cover to contain hair brushes, soap, sponges, &c.

No plain clothes should on any account be allowed to be worn in camp.

11.—Equipment.

11. Every officer should carry his sword in a "Sam Browne" belt, which also supports a revolver, and small ammunition pouch.

12.—Bedding,

12. The most convenient method of carrying bedding is in a strong canvas combined valise and ground sheet, the space on which one lies being lined with water-proof sheeting.

For bedding, four blankets and a small pillow should be enough for any climate.

13.—Valise.

13. The lightest and therefore most serviceable arrangement for carrying clothes, &c., is a valise of strong canvas lined with waterproof, which when filled will be about the same size and weight as the valise containing the bedding, and will balance that load on a mule or pony.

14.—Tents.

14. The tent generally used by officers in the late Afghan campaign was a double fly one weighing 80lbs., and was very convenient and comfortable. It is, however, in my opinion, more than is required for campaigning in cool weather, and I think that a single fly pal tent, pegging down to the ground by means of metal rings instead of long ropes, and with jointed male bamboo poles, the thickness of an ordinary spear shaft, is quite sufficient. Such a tent with iron pegs complete, upwards of 8 feet square and 7 feet high, only weighs 45lbs.

15.—Cooking utensils.

15. On the whole, nothing is so simple and economical as the "Warren cooking pot," which can be fitted up with enamelled iron plates, teapot, knives, forks, spoons, &c., &c., and with a strong canvas or leather cover packs in a very compact form, and does not weigh more than 10lbs. This will, if necessary, cook a dinner for at least three men.

16.—Packsaddles.

16. Having enumerated the articles which an officer actually requires, it may be well next to consider the easiest method of carrying them, and, I believe, that this can best be arranged for by discarding the regulations apportioning the exact weight of baggage allowed, which sometimes lead to inconvenience and confusion by officers' baggage being mixed up, and allowing each officer one mule or pony which should be in his own special charge.

For this animal a packsaddle is required, and I think none so convenient as that pattern which was used by Sir D. Forsyth's expedition to Yarkund, and which is, I believe, called the Otago saddle.

With this packsaddle, and the tent, valises, amount of clothes, &c., proposed by me, each officer would be perfectly independent. His baggage would be compact and easily loaded, and could accompany him on any duty that required his being detached from his regiment, without the trouble of perhaps being unloaded and loaded again. Much trouble would be saved in the act of loading, the loads being always so arranged as to be quickly adjusted on the saddle and properly balanced across the mule or pony.

The load would be well within the powers of any ordinary mule or pony, being in fact much less than is frequently carried now, owing to the cumbrous and inconvenient packsaddles and want of system in loading.

17.—Weight of loads.

17. The weight would be as follows:—

	lbs
Packsaddles	33
Tent	45
Bedding	36
Valise, with clothes, &c.	36
Cooking utensils	10
Total	160

giving a margin of nearly 40lbs for various items, such as books, stationery, lantern, &c.

18.—Mounted officers.

18. The above equipment and allowance of transport is intended for regimental officers of British infantry regiments.

Mounted officers have facilities for carrying somewhat more in their wallets and saddlebags, or in a small valise.

The latter, however, does not pack comfortably on an ordinary hunting saddle, and I think that the new saddle with fans, the use of which is only permissive, should be the only one allowed for field service.

Having stated what should, in my opinion, be the regulation equipment for officers in the field, I would only add that, whatever is determined upon, there should be sealed patterns, and that officers should be obliged to keep up their field kit, producing it at inspections when required.

I would also point out that transport might be saved if officers who were entitled to more than one charger employed their spare horses to carry baggage.

19.—Extra charges.

19. It would be better to allow certain officers who usually have much moving about to draw rations for extra horses, instead of obtaining transport animals. It would increase the efficiency of the officers without causing extra expense to the State, or adding to the work of the transport or Commissariat Department.

LUNDI KOTUL;
The 27th August 1879.

A. A. A. KINLOCH, *Major,*
Deputy Assistant Quarter Master General.

APPENDIX LXIV.

Approximate estimate of the cost and saving of proposals made by the Commission.

British Army.

	Number of corps and batteries.	Rate of annual cost.	Total annual cost.		
ESTIMATED COST OF PRESENT STRENGTH. (The pay of medical officers and veterinary surgeons has been excluded, the reduction under this head having been calculated elsewhere.)		Rs.	Rs.	Rs.	Rs.
Batteries of Royal Horse Artillery ...	15	1,91,725	28,75,875		
Batteries of Royal Field Artillery ...	43	1,63,075	70,12,225		
Batteries of Heavy Artillery ...	4	1,32,152	5,28,608		
Batteries of Mountain Artillery ...	2	1,39,720	2,79,440		
Batteries of Garrison Artillery ...	22	76,830	16,90,260		
Regiments of British Cavalry ...	9	5,38,295	48,44,655		
Regiments of British Infantry ...	50	5,63,946	2,81,97,300	4,54,28,563	
ESTIMATED COST OF PROPOSED STRENGTH. (The pay of medical officers and veterinary surgeons has been excluded, the reduction under this head having been calculated elsewhere.)					
Batteries of Royal Horse Artillery ...	10	1,85,503	18,55,030		
Batteries of Royal Field Artillery ...	38	1,63,316	62,06,008		
Batteries of Heavy Artillery ...	4	1,32,152	5,28,608		
Batteries of Mountain Artillery ...	8	1,39,720	11,17,760		
Batteries of Garrison Artillery ...	17	91,350	15,52,950		
Regiments of British Cavalry ...	6	6,74,393	40,46,358		
Regiments of British Infantry ...	43	6,31,225	2,71,42,675	4,24,49,389	
Saving	...	...	...	29,78,974	
Add—					
Estimated saving by the abolition of all but 6 bullocks with second line of wagons, after allowing for extra horses with batteries at stations detailed in paragraphs 200-202 ...	...	...	1,23,773		
Reduction in allowance to musketry instructors, British infantry, for six months in the year	...	...	38,700		
Saving in home effective charges for 3 regiments cavalry, 9 batteries of artillery, and 7 regiments of infantry, including pay of colonels, contribution for depôts, &c., and pensions for 309 officers of above corps and batteries, estimated roughly at	...	...	5,00,000		
				6,62,473	
Total saving, British Army ...	...	...	...		36,41,447

Native Army.

	Number of corps and batteries.	Rate of annual cost.	Total annual cost.		
ESTIMATED COST OF PRESENT STRENGTH.					
[The pay of medical officers and veterinary surgeons has been excluded, the saving under this head having been calculated elsewhere.]		Rs.	Rs.	Rs.	Rs.
Mountain Batteries of Artillery (four guns)	6	69,933	4,19,598		
Regiments of Bengal Cavalry	19	2,54,782	48,40,858		
Regiments of Punjab Cavalry ..	5	2,69,182	13,45,910		
Regiment of Guide Corps Cavalry ...	1	...	1,70,886		
Regiments of Madras Cavalry ...	4	2,77,070	11,08,280		
Regiments of Bombay Cavalry ...	7	2,95,562	20,68,934		
Regiments of Native Infantry ...	119	1,72,035	2,04,72,165		
Regiments of Punjab Infantry ...	12	1,95,616	23,47,392		
Corps of Sappers and Miners, Bengal	1 (10 companies).	...	4,05,764		
Corps of Sappers and Miners, Madras	1 (10 companies).	...	4,74,058		
Corps of Sappers and Miners, Bombay	1 (5 companies).	...	2,38,406		
				3,38,92,251	
Total ...	...	...	...		
ESTIMATED COST OF PROPOSED STRENGTH.					
[The pay of medical officers and veterinary surgeons has been excluded, the saving under this head having been calculated elsewhere.]					
Mountain Batteries of Artillery (six guns)	$6\frac{2}{3}$	91,052	6,07,013		
Regiments of Native Cavalry (Bengal and Bombay)	$25\frac{1}{2}$	3,34,104	85,19,652		
Regiments of Native Cavalry, Madras	2	4,00,602	8,01,204		
Regiments of Native Infantry ...	101	2,03,341	2,05,37,441		
Corps of Sappers and Miners, Bengal	companies. 13	...	5,12,764		
Corps of Sappers and Miners, Madras	10	...	4,74,058		
Corps of Sappers and Miners, Bombay	6	...	2,68,406		
Total ...		...	3,17,20,538		
Add—					
Additional cost of permanently attaching two extra officers to Native Regiments	...	...	2,00,000		
Regimental depôts for Native Army ...	...	...	87,840		
Extra pay to Duffadars, Havildars, and Naicks	...	...	1,81,224		
Allowances to Musketry Instructors for six months in the year ...	...	...	38,400		
				3,22,28,002	
Total saving, Native Army ...	..	...	...	...	16,64,249

Administrative and Superior Commands and Staff.

	Rs.	Rs. A.	Rs.	Rs.	Rs.
ESTIMATED COST OF PRESENT ORGANIZATION.					
Military Secretariat, India ...	2,88,074				
„ Madras ...	64,460				
„ Bombay ...	82,000				
		4,34,534 0			
Military Department, Account Branch		1,12,806 0			
„ Secretariat, Punjab Government		37,000 0			
			5,84,340		

	India.	Madras.	Bombay.	Total.			
*Commander-in-Chief ...	2,21,401	1,13,481	1,14,636	4,49,518			
Adjutant General's Department	2,50,684	94,966	1,03,880	4,49,530			
Adjutant General's Department, Royal Artillery Branch ...	58,237	27,787	18,027	1,04,051			
Adjutant General's Department, Musketry Branch ..	30,601	12,959	17,850	61,410			
Quartermaster General's Department	1,89,369	71,980	89,203	3,50,552			
Artillery Inspection ...	42,962	...	...	42,962			
Gymnastic Instruction ...	22,256	...	11,406	33,662			
Garrison Instruction ...	16,918	...	...	16,918			
Judge Advocate General's Department	68,863	29,630	27,455	1,25,948			
Army Schools	56,109	27,165	11,540	94,814			
					17,29,365		
			Total ..		...	23,13,705	
ESTIMATED COST OF PROPOSED ORGANIZATION.							
Secretariat War Department.							
1 Secretary @ 3,500×12			42,000				
1 Under-Secretary as Lieutenant-Colonel 827-14+1,000 staff=1,827-14×12			21,934				
1 Under-Secretary as Lieutenant-Colonel 827-14+800 staff=1,627-14×12			19,534				
1 Under-Secretary as Major 640-14+700 staff=1,340-14×12			16,090				
1 Under-Secretary as Captain 374-1-6+600 staff=974-1-6×12			11,689				
1 Assistant Secretary 700 rising to Rs. 1,000=mean 900×12			10,800				
1 Secretariat office establishment and contingencies			1,86,500				
1 Accountant General, Military Department, office establishment and contingencies			1,12,806				
					4,21,353		4,21,353
1 Commissary-General-in-Chief ...							
1 Assistant to ditto ..							
1 Director General of Ordnance ...							
1 Deputy ditto ..							
1 Assistant to ditto ..	Estimated for elsewhere.						
1 Surgeon-General							
2 Secretaries to ditto							
1 Inspector General of Fortifications and Director of Works ...							
1 Director of Remount Operations...							
HEAD-QUARTERS, ARMY OF INDIA.							
1 Commander-in-Chief			1,00,000 0				
1 Chief of the Staff at 3,000×12			36,000 0				
2 Staff Officers as Lieutenant-Colonels at 827-14+1,000=1,827-14×2×12			43,869 0				
1 Staff Officer as Major at 640-14+600=1,240-14×12			14,890 8				
1 Staff Officer as Captain at 374-1-6+500=874-1-6×12			10,489 2				
1 Staff Officer for Musketry as Major at 640-14+600=1,240-14×12			14,890 8				
1 Staff Officer for Intelligence as Lieutenant-Colonel at 827-14+800=1,627-14×12			19,534 8				
Carried forward Rs. ...			2,39,673 10		...	4,21,353	

* Includes all charges for personal staff, office establishments, &c.

Administrative and Superior Commands and Staff—(continued).

	Rs. A.	Rs.	Rs.	Rs.
Brought forward	2,39,673 10		4,21,353	
HEAD-QUARERS, ARMY OF INDIA—contd.				
2 Staff Officers for Intelligence as Captain at 374-1-6 +500=874-1-6×2×12	20,978 4			
1 Inspector General of Royal Artillery at 2,500 ×12	30,000 0			
1 Royal Artillery Staff Officer to Inspector General of Royal Artillery as Lieutenant-Colonel 827-14 +800=1,627-14×12	19,534 8			
1 Royal Artillery Staff Officer to Inspector General of Royal Artillery as Captain 374-1-6+500= 874-1-6×12	10,489 2			
1 Staff Officer of Royal Engineers as Captain 374-1-6+600=974-1-6×12	11,689 2			
1 Judge Advocate General at 2,500×12 .	30,000 0			
1 Assistant to Judge Advocate General as Major 640-14+500=1,140-14×12	13,690 8			
1 Director of Military Education in India as Major 640-14+500=1,140-14×12 ...	13,690 8			
2 Assistants to Director of Military Education as Captain 374 -1-6+300=674-1-6×2×12 ..	16,178 4			
1 Inspector of Gymnasia in India as Major 640-14 +500=1,140-14×12	13,690 8			
1 Military Secretary as Lieutenant-Colonel 827-14 +500=1,327-14×12	15,934 8			
3 Aides-de-Camp, 2 as Captain 374-1-6+250= 624-1-6×2×12=14,978-4, 1 as Lieutenant 225-12-0+250=475-12×12=5,709 ...	20,687 4			
1 Native Aide-de-Camp (as at present) ...	7,100 0			
1 Interpreter as Major 640-14+400=1,040-14×12	12,49 8			
Commander-in-Chief's office establishment, contingencies, sub-medical and hospital establishment and tour charges as at present	58,704 0			
Office establishments, contingencies, &c, Adjutant-General's Office, as at present	1,52,554 0			
Office establishments, contingencies, &c., Royal Artillery Branch, as at present	26,800 0			
Office establishments, contingencies, &c., Musketry Branch, as at present	16,512 0			
Office establishments, contingencies, &c., Quarter-master General's Office, as at present ...	99,814 0			
Office establishments, contingencies, &c., Artillery Inspection, as at present	5,680 0			
Office establishments, contingencies, &c., Gymnastic Instruction, as at present	8,566 0			
Office establishments, contingencies, &c., Garrison Instruction, as at present	3,228 0			
Office establishments, contingencies, &c, Judge Advocate General's Office, as at present ...	20,528 0			
Office establishments, contingencies, &c., Army Schools, as at present	2,240 0			
Total	...	8,70,452	8,70,452	
HEAD-QUARTERS OF ARMY CORPS.				
4 Lieutenant-Generals at 4,500×4×12 ...	2,16,000 0			
4 Chiefs of the Staff at 2,500×4×12 ...	1,20,000 0			
4 Staff Officers as Lieutenant Colonels 827-14+ 800=1,627-14×4×12	78,138 0			
4 Staff Officers as Majors 640-14+600=1,240-14× 4×12	59,562 0			
4 Staff Officers as Captains 374-1-6+500=874-1-6 ×4×12	41,956 8			
4 Staff Officers Royal Artillery as Majors 640-14 +500=1,140-14×4×12	54,762 0			
4 Staff Officers, Royal Engineers, as Majors 640-14 +500=1,140-14×4×12	54,762 0			
2 Deputy Judge Advocate Generals as Lieutenant-Colonels 827-14+500=1,327-14×2×12 .	31,869 0			
2 Deputy Judge Advocate Generals as Majors 640-14+500=1,140-14×2×12	27,381 0			
8 Staff Officers for Musketry Inspection at 300 staff each =2,400×6 months	14,400 0			
2 Staff Officers for Garrison Instruction as Majors 640-14+400=1,040-14×2×12	24,981 0			
Carried forward ...	7,23,811 8	.....	12,91,805	

Administrative and Superior Commands and Staff—(concluded.)

	Rs. A.	Rs.	Rs.	Rs.	Rs.
Brought forward	7,23,811 8	...	12,91,805	...	...
HEAD-QUARTERS OF ARMY CORPS—contd.					
2 Staff Officers of Garrison Instruction as Captains 374-1-6+400=774-1-6×2×12	18,578 4				
4 Assistants to Staff Officers for Garrison Instruction as Captains 374-1-6+250=624-1-6×4×12 ...	29,956 8				
8 Sub-Inspectors of Army Schools 300×8×12	28,800 0				
4 Military Secretaries as Lieutenant-Colonels 827-14+400=1,227-14×4×12 ...	58,938 0				
4 Aides-de-Camp as Captains 374-1-6+250=624-1-6×4×12 ...	29,956 8				
4 Aides-de-Camp as Lieutenants 225-12+250=475-12×4×12 ...	22,836 0				
		9,12,876			
Approximate estimates for office establishments, contingencies, travelling and other charges, viz.,—					
4 Lieutenant-Generals' offices at 8,000×4	32,000				
4 Offices of Adjutant-General's Department at 30,000×4 ...	1,20,000				
4 Offices Royal Artillery 9,000 × 4...	36,000				
8 Staff Offices for Musketry at 85 each=680×6 months ...	4,080				
4 Offices of Quartermaster-General's Department at 25,000 ...	1,00,000				
4 Offices of Judge Advocate General's Department at 5,000 ...	20,000				
Army Schools at 2,000 each×4 ...	8,000				
		3,20,080			
			12,32,956		
				25,24,761	
* Total increase in Administrative and superior commands and staff.	...	...		...	2,11,056

Divisional, District, Brigade, and Station Commands and Staff.

ESTIMATED COST OF PRESENT ORGANIZATION.	Rs. A.	Rs.	Rs.	Rs.
12 Divisions at Rs. 3,500 each × 12 months ...	5,04,000 0			
13 First class Districts or Brigades at 2,227-14 × 12	3,47,548 8			
10 Second class Districts or Brigades at 2,027-14 × 12	2,43,345 0			
Aides-de-Camp—		10,94,893		
6 as Captain at 374-1-6 + 250 staff=624-1-6 × 6 × 12	44,934 12			
6 as Lieutenant at 225-12+250 staff=475-12 × 6 × 12	34,254 0			
Assistant Adjutant Generals—				
7 as Lieut.-Col. at 827-14+500 staff=1,327-14 × 7 × 12	1,11,541 8			
6 as Major at 640-14+500 staff = 1,140-14 × 6 × 12	82,143 0			
Deputy Assistant Adjutant Generals and Brigade Majors—				
15 as Major at 640-14+400 staff=1,040-14×15 × 12	1,87,357 8			
15 as Captain at 374-1-6+400 staff = 774-1-6× 15×12	1,39,336 14			
Carried over	5,99,567 10	10,94,893		

* The increase is owing to officers, such as Deputy Judge Advocates General, &c, hitherto shown under districts, being here included in the staff of army corps, under the head of superior commands and staff. The increase is more than met by the large saving in the divisional and district staff.

Divisional, District, Brigade, and Station Commands and Staff—(continued.)

	Rs. A.	Rs.	Rs.	Rs.
Brought forward	5,99,567 10	10,94,893		
Assistant Adjutant General of Musketry—				
6 as Major at 640-14+300=940-14×6×12 ...	67,743 0			
6 as Captain at 374-1-6+300=674-1-6×6×12	48,534 12			
Assistant Quartermaster Generals···				
5 as Lieut.-Col. at 827-14+500=1,327-14×5 × 12	79,672 8			
4 as Major at 640-14+ 500=1,140-14×4 × 12	54,762 0			
Deputy Assistant Quartermaster Generals—				
7 as Major at 640-14+400=1,040-14×7×12	87,433 8			
7 as Captain at 374-1-6+400=774-1-6×7×12	65,023 14			
Deputy Judge Advocate Generals—				
6 as Lieut.-Colonel at 827-14 + 500 = 1,327-14 × 6 × 12	95,607 0			
5 as Major at 640-14+500=1,140-14×5×12 ...	68,452 8			
Garrison Instructors—				
4 as Major at 640-14+400=1040-14×4×12 ...	49,962 0			
4 as Captain at 374-1-6+400=774-1-6×4×12	37,156 8			
		12,53,915.		
Office allowance of Assistant Adjutant Generals ...	23,100 0			
„ of Deputy Assistant Adjutant Generals and Brigade Majors	48,600 0			
Office allowance of Assistant and Deputy Adjutant Generals for Musketry	11,880 0			
Office allowance of Assistant and Deputy Assistant Quartermaster Generals	39,936 0			
Office allowance of Deputy Judge Advocate Generals	8,940 0			
„ of Garrison Instructors „	4,230 0			
		1,36,686		
Station Commands and Staff—				
Officer Commanding at Asseerghur ...	6,000 0			
3 Officers Commanding stations, 1st Class ...	14,400 0			
1 „ „ 2nd „	3,600 0			
7 „ „ 3rd „	21,000 0			
7 „ „ 4th „	15,840 0			
16 Station Staff Officers, 1st Class	28,800 0			
16 „ 2nd „	19,200 0			
		1,08,840		
Total ...	...	...	25,94,334	
ESTIMATED COST OF PROPOSED ORGANIZATION.				
8 First class Districts at Rs. 3,500 each × 12 months	3,36,000 0			
8 Second class „ at „ 2,500 „ × 12 „	2,40,000 0			
9 Third class „ at „ 2,000 „ × 12 „	2,16,000 0			
		7,92,000		
5 Staff Colonels Rs. 827-14+Rs. 800=1,627-14×5×12	97,672 8			
9 First class commands at Rs. 300 staff each=2,700×12	32,400 0			
14 Second class commands at Rs 200 staff each =2,800×12	33,600 0			
		1,63,672		
Staff, 8 first class staff officers as Lieutenant-Colonel 827-14+500=1,327-14×8×12 ...	1,27,476 0			
7 first class staff officers as Major 640-14+500= 1,140-14×7×12	95,833 8			
7 first class staff officers as Captain 374-1-6+ 500=874-1-6×7×12	73,423 14			
7 second class staff officers as Lieutenant-Colonel 827-14+400=1,227-14×7×12 ...	1,03,141 8			
7 second class staff officers as Major 640-14+ 400=1,040-14×7×12	87,433 8			
6 second class staff officers as Captain, 374-1-6 +400=774-1-6×6×12	55,734 12			
4 Aides-de-Camp as Captain 374-1-6+250= 624-1-6×4×12	29,956 8			
4 Aides-de-Camp as Lieutenant 225-12+250 =475-12×4×12	22,836 0			
37 Garrison Staff 1st Class at 200=7,400×12...	88,800 0			
13 „ 2nd „ at 100=1,300×12...	15,600 0			
		7,00,235		
			16,55,907	
Total saving in divisional, district, brigade, and station commands and staff	...	...	..	9,38,427

Savings in Medical and Army Departments.

	Rs.	Rs.	Rs.
MEDICAL DEPARTMENT.			
Saving by reorganization of Medical Department, as shewn in Chapter IX	...	31,00,000	
ARMY DEPARTMENTS.			
Saving in Transport Department, as shewn in Section 2, Chapter X	8,33,451		
Saving in Clothing Department, as shewn in Section 1, Chapter X	4,800		
Saving in Military Account Department, as shewn in Section 6, Chapter X	6,300		
Saving in Remount and Veterinary Department, as shewn in Section 5, Chapter X	3,83,500		
Total ...	12,28,051		
DEDUCT—			
Increase in Ordnance Department, as shewn in Section 3, Chapter X	35,603		
Total saving in Army Departments ...	...	11,92,448	
Total saving ...	...	...	42,92,448

Recapitulation.

	Rs.	Rs.	Rs.
Saving in British Army	...	36,41,447	
„ in Native Army	...	16,64,249	
„ in Divisional, District, Brigade and Station Commands and Staff	...	9,38,427	
Saving in Medical Department	...	31,00,000	
„ in Army Departments	...	11,92,448	
Total	...	...	1,05,36,571
DEDUCT—			
Increase in Administrative and Superior Commands and Staff	...	...	2,11,056
Total net saving by proposals of Army Commission ...	...	...	1,03,25,515

No credit has been taken for the probable saving in the Ordnance Department and in the Military Works Branch of the Public Works Department. There will also be a very large saving hereafter in the pension and other charges (such as passages) of 23 veterinary surgeons, and about 300 officers in Native Regiments and Staff appointments. The pensions of the native army will also show a considerable decrease, owing to the smaller number of native commissioned and non-commissioned officers. Including these items, the diminished cost of reliefs, and some minor savings, the total reduction will not fall far short of Rs. 1,25,00,000.

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