

(1) Number of pages 34(2) Date of repair 16-12-38(3) Initials of the Referencer Q

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	<u>771</u>	Press Mis.
Dated	<u>3-2-38</u>	<u>18</u>

Not to be folded or roughly handled

172

*Proceedings of the Madras Government, Public Works Department,
for the month of February 1860.*

No. 47. Read the following Proceedings of the Madras Government in the Military Department, dated 17th December 1859, No. 4480.

Reviewing the memorandum from the Acting Inspector General of Ordnance and Magazines on the re-classification of the Arsenal establishments in this Presidency. } (Vide Military Proceedings from 11th to 20th December 1859, Nos. 246 @ 251.)

No. 48. ORDER THEREON, 3rd February 1860, No. 279.

Ordered to be communicated to the Chief Engineer.

(Signed) T. PYCROFT,
Chief Secretary.

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following Papers:—

From the Acting Inspector General of Ordnance and Magazines, Fort Saint George, 28th November 1859, No. 303; to the Secretary to Government, Military Department.

I have the honor to forward the enclosed Memorandum on the revision of Ordnance Establishments for the consideration and orders of Government.

2. In pursuance with the wishes of Government, I shall next proceed to report on the question of the allotment of stores necessary to be maintained in the Ordnance Depôts, to meet the ordinary and emergent requirements of the service; and I hope to be able, shortly to submit a detailed report on that subject to Government.

MEMORANDUM No. 2.

In continuation of Memorandum from this Department, No. 164, dated 3rd August 1859, the Acting Inspector General of Ordnance has the honor to submit certain propositions bearing on the first subject therein proposed for consideration, viz., the re-classification of the several Arsenal Establishments in this Presidency.

Before entering on the general question, the Acting Inspector General begs to place before Government a statement of the reductions already effected in Ordnance expenditure, reductions which in the aggregate present an annual saving of 48,185-5-0 Rupees, but these measures, although important, are only preliminary to other reforms which, under an improved organization of the Ordnance Department as a whole, may, by consolidating duties and improving the efficiency of the subordinate agency, be safely carried out.					
Saugor Arsenal...	...	...	1,193	7	2
Bellary Siege Train	..	..	829	12	2
Bellary Arsenal	...	...	63	5	4
Vellore do.	..	..	264	2	4
Nagpore do.	...	...	801	8	3
Malacca do.	..	..	251	6	0
Secunderabad do.	...	...	218	5	10
Masulipatam do.	..	..	150	12	4
Trichinopoly do.	...	...	126	10	11
Bangalore do.	..	..	17	11	10
Cannanore do.	...	...	45	10	0
Vizagapatam do.	..	..	12	10	11
Fort Saint George	...	...	480	0	0

To effect the re-arrangement proposed it must be determined:

1. Which of the existing Arsenals shall be fully maintained.
2. Which reduced to Magazines or Depôts of Stores, and
3. Which, without weakening the Department, be abolished.

The Acting Inspector General will first refer to those Arsenals which have already been under the special notice of Government.

VELLORE ARSENAL.

The abolition of the Vellore Arsenal, as a working Department, has already been virtually determined on, as recorded in Extract Minutes Consultation, No. 3105, of the 28th November

1856; Government having ruled that on the extension of the Railway to that station, the stores should be withdrawn, and its Establishment modified; and the Acting Inspector General,

Establishment vide Appendix A.				now that Madras has been brought nearer to Bangalore than it was formerly to Vellore, when the Arsenal at the latter place was established, (taking time in communication as the best measure of distance,) recommends the entire abolition of the Vellore Arsenal; but he would suggest that until the erection of Magazines at Saint Thomas' Mount for the storage of the reserve Gun Powder of the Presidency, the main Powder Magazine at Vellore, so long as the station continues in Military occupation, be retained.
In 1829	Rs. 1,134	5	0	
In 1836	„ 1,032	7	8	
1st March 1859, ...	„ 878	4	4	
Annual saving	Rs. 10,539	4	0	

BELLARY ARSENAL.

His Excellency the Commander-in-Chief, in Minute 11th March 1858, has recommended the reduction of the Arsenals at Bellary and Cannanore to Depôts or Magazines; that at Bellary to be adapted to store 500 rounds of ammunition per Musket and Piece of Ordnance, with one complete set of spare Light Field Carriages, Waggons &c., and a third class (a) Siege Train, together with, the Acting Inspector General presumes, such small stores and equipments as may be in current demand with the Force dependent on it. The Stations occupied by the Bellary Force that would still fall under provision by the Bellary Magazine are indicated in the margin. The Acting Inspector General, in fixing the allotment of Stores for the Bellary Magazine, has taken of necessity the Force as it now exists in the Ceded Districts, but it is not improbable, in the re-distribution of the Madras Army, that it may be considered unnecessary to keep the Force located as at present, as Troops cantoned in the more healthy climate of Mysore can be moved rapidly, with all munitions of war, to any part of these Districts. It is however worthy of note that the proximity of the Bellary Arsenal to the Frontier has afforded important advantages in times of difficulty, in facilitating the throwing in of Reserves and Stores to the stations beyond. Indeed for half a century, Bellary has been the strategic centre for the formation of Forces both for offensive and defensive operations, and this so recently as 1857: both General Whitlock's Force and the moveable column having been organised at Bellary.

- (a)
- 2 18 Pdr. Iron.
 - 2 8 Inch Howitzer.
 - 2 8 „ Mortar.
 - 6 5½ „ „ Brass.
 - 1 Regiment Light Cavalry.
 - 1 Field Battery.
 - 1 European Regiment.
 - 3 Native Regiments.
 - 1 Extra Regiment N. I.
 - 1 Company Native Veterans.

Bellary.
Gooty.
Kurnool.
Cumbum.
Cuddapah.
Ramandroog.

The Arsenal at Bellary should therefore, although reduced to the Magazine Class, be so organised as to admit, in event of necessity, of ready extension of its resources. It is now considered a fit charge for a Deputy Commissary, but in future may be presided over by a Deputy Assistant Commissary. When the proposed reduction is ordered to be carried into execution the surplus stores will be removed to Bangalore or Secunderabad; or to the Presidency if necessary.

Establishment vide Appendix A.				The Siege Train Establishment authorized in July 1858 has been discontinued, thereby effecting an annual saving of Rs. 9,957-2; the cost of the proposed Establishment compared with the present Establishment is shewn in the margin.
In 1829	Rupees 2,170	6	0	
In 1836	„ 2,220	2	0	
1st March 1859	„ 1,449	6	1	
Proposed Establishment ..	„ 813	8	1	
Difference	„ 635	14	0	
Annual saving	Rs. 7,630	8	0	

TRICHINOPOLY ARSENAL.

His Excellency the Commander-in-Chief in his Minute dated 12th October 1858, has advised the transfer of the Trichinopoly Arsenal to the class of Magazines, and the recommendation has been confirmed in the Proceedings of Government No. 2048, 10th June 1859.

The Magazine to be maintained at Trichinopoly will be adapted to supply the Troops as per margin, proposed by His Excellency to form the Southern Division of the Army, as well as the armament of a fortified Post consisting of four 68 Pdrs. and two 8 Inch Howitzers. It will hold in reserve one complete 9 Pdr. Light Field Battery, with spare Ordnance, one 68 Pdr., one 8 Inch Howitzer and four 5½ Inch Mortars; and the Heavy Field Guns in use with the Artillery at the Station should be so equipped as to constitute a small Siege Train. There will also be lodged in this Depot such Stores and Equipments as may be in current demand by the Force dependent on it.

- Proposed.*
- 2 Light Field Batteries.
 - 1 Reserve Company of Artillery.
 - 1 Regiment of Light Cavalry.
 - 1 European Regiment of Infantry.
 - 3 Regiments of Native Infantry.

- Present Force.*
- 1 Native Cavalry.
 - 1 Company European Artillery.
 - 2 European Regiments.
 - ½ Company Sappers and Miners.
 - 5 Native Regiments.
 - 2 Companies Veterans.

Establishment vide Appendix A.				There is easy communication with Trichinopoly from Madras, by Sea, to the excellent Port of Negapatam, and thence by a good road to Trichinopoly. On the completion of the Railway through Coimbatore, now in progress, still greater facilities will be afforded for supplying Military stores to the Southern Division Force; including the Regiment located on the Neilgherries. In lieu of the full Commissary now posted to this Arsenal, an Assistant Commissary will be appointed to the charge of the proposed Magazine: and all surplus stores will be removed to the Presidency.
In 1829	Rupees 1,883	5	0	
In 1836	„ 1,922	4	10	
1st March 1859	„ 1,904	15	0	
Proposed Establishment ..	„ 1,112	0	3	
Difference	„ 792	14	9	
Annual saving	Rs. 9,515	1	0	

CANNANORE ARSENAL.

The Acting Inspector General is under the impression that His Excellency the Commander-in-Chief will not press the reduction of this Arsenal to the position of a mere Depot or Magazine.

This Arsenal alone meets the requirements for Stores and Equipments of the Force cantoned within the Provinces of Malabar and Canara, as well as those of the Police Corps and Civil Establishments. The Fort at Cannanore in which the Arsenal is placed, is small but in good condition, and should have two 68 Pdrs. mounted seaward. Being the one armed position between Ceylon and Bombay, it would constitute a port of refuge in which Merchant shipping could place itself under the protection of coast guns.

The position of the Arsenal is one of great advantage, it possesses facilities for supplying the Troops cantoned at the several Sea-board stations marginally specified, on the Malabar and Canara Coasts. It is the best point for embarking and disembarking Troops, and as a Sea Port Establishment the moderate local manufacturing appliances now in operation in the Arsenal may be made extensively useful, not only in the economic replacement and repair of the equipment of the Troops, but also in affording aid to shipping.

Calicut.
Tellicherry.
Mangalore.
Honore, &c.

The contemplated reduction of the manufacturing Establishment attached to the Trichinopoly Magazine renders it imperative that Cannanore should be retained in a state of full efficiency.

Establishment vide Appendix A.				Cannanore is moreover the permanent Head Quarters of an European Regiment; the Acting Inspector General, for the above reasons, proposes that the Cannanore Arsenal be continued on its present very moderate footing; and he hopes that Government will concur in this view. The Acting Inspector General is however fully sensible that when the lines of Railway now in course of construction in the Southern Division become available, still further corresponding modifications in Ordnance arrangements will be inevitable.			
In 1829...	Rupees	971	9 4				
In 1836, ...	"	942	4 10				
1st March 1859 ...	"	1,136	4 6				
Proposed Establishment ...	"	1,090	10 6				
Difference ...	"	45	10 0				
Annual saving...	Rs.	547	8 0				

MASULIPATAM ARSENAL.

This station has for many years ceased to be the Head Quarter position of the Northern Division of the Army, and the Arsenal has consequently lost its original character and importance. Since the removal of the Head Quarters of the Division to Vizagapatam it has been used only as a receiving Depot for Military stores intended for the replenishment of the Arsenals at Secunderabad and Nagpore.

In determining the most advantageous position for an Arsenal establishment in the Northern Division, two questions present themselves:

The *First*—Whether the Masulipatam Arsenal shall be abandoned and inexpensive receiving sheds erected at Cocanada for stores in transit to Secunderabad and Nagpore; the Arsenal at Vizagapatam being retained as the working Arsenal of the Northern Division;—or

Secondly—Whether, Vizagapatam being the working Arsenal, the admirable buildings and magazines forming the Arsenal at Masulipatam, shall be still maintained as the great receiving store houses for goods en route to Nagpore and Secunderabad; thereby obviating the necessity of any buildings at Cocanada.

A third question too might fairly be raised, that is whether, considering the contemplated improvements to the Port of Cocanada, the facilities of access it affords for shipping of every class, and the excellent means of communication it has with both Nagpore and Secunderabad, an Arsenal might not be there advantageously established, in supersession of the two Arsenals at Vizagapatam and Masulipatam. But the absence at present of any Troops at Cocanada at once renders this point a subject for the future consideration of Government, rather than one which can be practically discussed in this paper.

With regard to the second proposition, the reasons in support appear to be, that the Arsenal itself (built by the French) and the three Magazines attached, are the best constructed and most commodious Ordnance structures in the Presidency, with exception only of those at Madras. In immediate connection with the Arsenal is the large unused Barrack formerly occupied by an European Regiment. The advantages therefore of ample, commodious, and secure stowage are available at Masulipatam in a high degree.

The Arsenal, Barrack, and Magazines are within the works of the Fort, which although in a dilapidated state at present, might be rendered, at little expense, capable of resisting mere local outbreak.

The position of Masulipatam is also one of great advantage, it stands midway between the Kistnah and Godavari rivers, holding communication with both by canals.

The Arsenal possesses the means of despatching goods to Secunderabad by canal to Bezwarah, and thence by the Kistnah to Mukeala, a point on the river only four miles from the great high road to Secunderabad, and from which station it is not more than one hundred miles distant. So also can goods be forwarded from Masulipatam, via Bezwarah to Dowlaishwaram on the Godavari, and from thence by river communication to Wooney, within eighty miles of Nagpore.

It is not the least advantage of Masulipatam that while it thus holds water communication with the great Stations of Secunderabad and Nagpore, it also commands the only two Road lines with those stations, viz., the direct road to Secunderabad, by the one high way for the grain, salt, and other goods despatched from the Port of Masulipatam to the great city of Hyderabad; and the two roads to Nagpore, one via Secunderabad, and the other which is direct, and does not exceed 500 miles, is, in the dry months, in fair condition, and passes through healthy localities.

The objections to Masulipatam are, that it is too distant from the out-posts held by the Detachments of Troops in the Northern Division to fulfil all the conditions of an Arsenal; but the objection that may most forcibly be urged against maintaining a working Arsenal at Masulipatam is, that the munitions of war stored there, would be without the protection of European Troops; and his Excellency the Commander-in-Chief has enunciated, in terms so clear,* the sound principle that large Arsenals should only be maintained at Stations where European Troops are cantoned, that there remains only the first proposition, viz., to abandon

- Let us have no large Depôts for munitions of war and Military Stores, where there is neither a fortified Post, nor a European Force to effectually protect them. Complete the water communication from the Coast to Beizwarrah, and erect a few inexpensive buildings at the Port of landing, to protect the Stores while being transferred to the Boats from Ship-board, and every essential requirement will be amply met.

the Arsenal of Masulipatam, erect inexpensive receiving sheds at Cocanada, and maintain Vizagapatam as the working Arsenal of the Northern Division, for the consideration of Government.

The Corps forming the Northern Division of the Madras Army are now chiefly dependent on the Vizagapatam Arsenal, and its importance has recently been increased by the location there of a British Regiment, but the Arsenal buildings are of a wretched description and utterly unfit for Ordnance purposes.

With the chief Arsenal at Vizagapatam, there must of necessity be simple receiving sheds at Cocanada for the reception of goods intended for the Arsenals of Nagpore and Secunderabad, as it is impracticable to communicate direct with either of those places from Vizagapatam.

The Acting Inspector General does not contemplate any local Establishment for Cocanada, as all convoys of stores destined for the stations beyond frontier will be accompanied by one or more Warrant Officers, who will remain with them, if detention occur at Cocanada, see them put into the boats and then proceed with them to their destination; but by carefully timing the despatch of stores from Madras, it may be expected that the boats will take the stores from the ship, by canal, to Dowlaishwaram, and proceed at once up the river.

Consequent on completed Canal communication, and by having only one Arsenal in the Northern Division, a reduction in the Ordnance Establishments, to the full extent of the present charges of the Masulipatam Arsenal, amounting to Rs. 20,965-3-0 annually may be fairly effected.

Having submitted for the consideration of Government the above material modifications in the character and establishments of those Arsenals which have been effected, since their organization, by the changed circumstances of the Presidency, the improved means of communication and those other causes which have rendered their maintenance in full strength unnecessary, the Acting Inspector General will pass to another and more important class of Arsenals, and will show briefly the reasons which induce him to recommend that these Arsenals should be preserved in full working efficiency. The Arsenals of Bangalore, Secunderabad, Nagpore, Singapore and Pegu, with its dependent Depôts, are here referred to.

NOTE.—The above was in type, before the Order of Government No. 4063, dated 16th November 1859, received on the 21st instant, made known that Government had already come to the determination of abolishing the Masulipatam Arsenal.

BANGALORE ARSENAL.

The improved means of communication with this Station would, had no changes in the Bellary, Trichinopoly and Vellore Arsenals been proposed, have justified its being placed on a reduced footing, but bearing in mind that under the modifications proposed, the Bangalore Arsenal will remain the only working Establishment for two Divisions of the Army, viz., the Mysore and Southern Divisions, besides Irregular Corps, no reduction, in its already very mode-

rate Establishment, can be safely proposed: the whole cost of the Arsenal, including all ranks, being something under 2,000 Rupees monthly.

The Bangalore Arsenal, with slight departmental modifications, will retain its present strength of Artificers, and so be prepared to meet the full requirements of the Troops dependent on it. It is believed that this arrangement will not only be more economical, but it will secure what is still more important, a higher state of efficiency and a greater facility for satisfactorily carrying on the public service, results more than compensative for the omission of any small saving at the expense of its working means. The temporary Establishment of a Laboratory Corporal, 1 Tindal and 10 Lascars, sanctioned by Government in Extract Minutes of Consultation No. 612, dated 16th February 1858,

Establishment vide Appendix A.		will however be dispensed with. Notwith-
Cost of Establishment in 1829...	Rs. 2,324 6 0	standing that the operations of this Arsenal
Do. do. in 1836...	„ 2,146 14 0	have been largely extended since the years
Do. 1st March 1859...	„ 2,090 2 1	1829 and 1836, the cost has been materially
Proposed do.	„ 1,960 13 11	decreased, as exhibited in the margin.

The position of this Arsenal is one of great importance. The Troops as per margin, are dependent on it for service equipments; and if any portion of the Troops located in the Ceded Districts be removed to the Mysore country, as is probable, the range of its duties will be further increased. The following is a brief outline of the duties devolving on the Ordnance Officer in charge.

Head Quarters and 2 Troops Horse Artillery.
1 Cavalry Regiment, European.
1 do. do. Native.
2 Foot Artillery Companies.
1 European Regiment.
7 Native Regiments.
1 Company Veterans.

1st. Compliance with the current demands of the two Divisions of the Army dependent on it, and its working Establishment.

2nd. The execution of all the repairs and the re-placement of equipments needed by the Troops in the Mysore Division.

3rd. The receipt and distribution of all Buff and Black leather Accoutrements made up in the Government Hoonsoor Factory for the Madras Army.

4th. The maintenance of a Siege Train and spare Light Field Batteries for the Mysore Division of the Army, and

5th. The replenishment of the Bellary Magazine, and assistance to the Trichinopoly Magazine when needed.

SECUNDERABAD ARSENAL.

The reduction of the Bellary Arsenal to an inferior class affects one of the sources of supply to which the Secunderabad Arsenal has hitherto, in time of emergency, looked for aid; but the improved means of communication now presented by Canals, the opening of the Godavari, and to some extent the Kistnah Rivers, renders this change of less importance than it would heretofore have been.

Looking to the peculiar position and consequent liabilities of the Secunderabad Arsenal, there can be no question that the truest economy will be found in rendering this Establishment as complete and self-reliant as practicable.

The large Regular and Irregular Force, as per margin, serving in the Hyderabad Territory, the latter including the Hyderabad Contingent in all its branches, is now solely dependent on this Arsenal, and it is therefore an absolute necessity that it should be maintained in such a state of perfect efficiency, and with such working means as to admit of its supplying, from its own resources, the great bulk of country made articles in current demand within its range, a provision commending itself both by a saving in time in meeting requisitions, and by a saving in money in obviating the carriage charges which would otherwise fall on this class of articles, if despatched from Madras.

REGULAR.

- 3 European Regiments (two Infantry and one Lancers.)
- 2 Native Cavalry Corps.
- 2 Troops European Horse Artillery.
- 1 do. Native do.
- 1 Head Quarters and 3 Companies Artillery, with 1 Light Field Battery, and 1 Kar-khanna.
- 1 Company Sappers.
- 6 Native Regiments.

IRREGULAR TROOPS.

- 4 Cavalry Regiments.
- 4 Companies of Artillery.
- 6 Regiments of Native Infantry.

The Acting Inspector General submits, that after the amalgamation of the Bolarum Arsenal with that of Secunderabad, the Military and Political importance of the latter, with its thus widely increased duties and great responsibilities, entitles it to rank as a first class Arsenal, the Officer in charge receiving an allowance of 500 Rupees per mensem, made up as marginally indicated.

Commissary of Ordnance Madras.....	Rs. 350
Chargeable to the Hyd. Contingent...	„ 150
	Rs..... 500

The Government will observe, that it is not proposed to increase the charge falling on this Presidency, but inasmuch as the whole of the Ordnance materiel of the Hyderabad Contingent has been made over to the Secunderabad Arsenal, so effecting a very considerable reduction in the Ordnance charges of the Contingent Force, it seems equitable, that the allowance of Rupees 150 proposed to be granted to the Commissary of Ordnance at Secunderabad, in recognition of his increased responsibilities, should be charged against that Force.

Upon the Officer in charge of the Bolarum Arsenal, before its transfer to Secunderabad, fell the duty of replenishing the several Ordnance Depôts at Aurungabad, Hingolee, Ellichpoor and Lingasagoor, each of which positions had, until very recently, a Commissioned Ordnance Officer in separate charge. Upon him also devolved the constantly recurring duty of fitting out, and preparing for the Field, small Siege Trains for the reduction of Forts held by disaffected or insurgent men in the Nizam's Territories; all these duties, neither light nor unimportant, now belong to the Commissary of Ordnance at Secunderabad, and will impose very great labor and need unremitting vigilance in execution.

In thus briefly noting for the information of Government, the character which the incorporation of the Bolarum Arsenal with the Arsenal at Secunderabad has impressed on the latter, the Acting Inspector General must not omit to refer to the large amount of valuable stores transferred, which fairly strengthens the grounds on which he has asked for a moderate increase to the allowances of the Ordnance Officer now in charge of both Departments.

With such large additional demands and liabilities devolving on the Arsenal at Secunderabad, and with a prudent regard to the condition of His Highness the Nizam's country, great caution must be exercised in any contemplated reduction of the working Establishment; and although the Acting Inspector General looks confidently to the workshops of the Grand Arsenal, with their admirably effective steam machinery and skilled supervision, to supply in a far greater measure than heretofore, the requirements of provincial Arsenals, yet until the extent and character of these new resources be more clearly developed, it would be an unwise economy to prematurely weaken the working Establishments of important Arsenals beyond Frontier.

The cost of the Secunderabad Establishment in the years 1829, 1836, and 1st March 1859 is entered in the margin, also the cost of the Establishment proposed to be maintained in future. The Government, it is hoped, will observe with satisfaction, that notwithstanding the larger duties, and greatly augmented charge, no permanent increase to the establishment is proposed, and that the future cost thereof will be less than it was on the 1st March 1859.

Establishment vide Appendix A.			
Cost in 1829.....	..	2634	3 4
Do. 1836	..	2748	4 2
Do. March 1859.....	..	3262	13 2
Proposed cost....	..	3194	7 4

On the abandonment of Masulipatam as a Military station, it will be necessary to provide additional Magazine accommodation at Secunderabad: and Government is solicited to authorise the Public Works Department, in communication with the Ordnance Department, to submit Plans and Estimates to Government for this purpose.

NAGPORE ARSENAL.

The remarks submitted on the Secunderabad Arsenal are generally equally applicable to the Arsenal at Nagpore; the Establishment, though on a smaller scale, should be capable of meeting readily and fully the requirements of the Force, of Regular and Irregular Troops dependent on it: the position of the Nagpore Arsenal, four hundred miles distant from the nearest Ordnance Depôt of the Madras Presidency, renders it advisable that it should be in communication with the nearer Bengal Ordnance Establishments, so that it might on emergency, draw supplies from those Arsenals, and indeed, as a principle, it is desirable that every Arsenal beyond Frontier should be in close communication with the Arsenal nearest to it, exchanging lists of stores, so that the resources of each may be known to the other. Good information should be obtained also regarding the best Roads, for intercommunication, and in short Frontier Arsenals should be mutually acquainted with all those circumstances which would tend to place in their hands, in case of need, the best and readiest means of supporting and strengthening each other.

It is much to be regretted that the Ordnance Establishments of the three Presidencies have hitherto been worked with so little concert or material co-operation, that, for any benefit derived, they might as well have been the Ordnance Establishments of separate Nations. This state of things, for the interests of the Public Service, should cease, and all Arsenals, whether Bengal, Madras, or Bombay, be brought as much into mutual co-operation and support as circumstances and localities may render practicable.

The reductions already effected in the Establishment of this Arsenal, amount annually to Rs. 9,618-3, and include the major portion of the Seetabuldee Hill Establishment, and the addition to the Permanent Arsenal Establishment sanctioned in Extract Minutes of Consultation No. 4083 and 4242, dated respectively 17th and 26th November 1857. To the above, the Acting Inspector General proposes the further reduction of one Conductor, one Sub Conductor, one Store Serjeant, one Syrang, two 1st and three 2nd Tindals, making an additional annual saving of Rupces 4,601-1.

Establishment vide Appendix A.			
In 1829.....	..	2,815	8 8
In 1836.....	..	2,432	15 4
1st March 1859 ..	..	4,211	0 6
Present cost....	..	3,560	13 3
Proposed cost....	..	3,026	1 6

The Commissary of Ordnance at Nagpore, it will be observed, now draws only a staff allowance of Rupees 350, which is 50 Rupees less than that drawn by an Ordnance Officer in charge of a second class Arsenal in Bengal.

RANGOON ARSENAL.

In the Pegu Division is located nearly one-third of the Madras Army, covering an extent of country larger than any other Division of the Madras Presidency. To meet the requirements of this large and dispersed Force, occupying newly acquired territory, the Rangoon Arsenal presents the main, indeed the only source of supply. Dependent on this Arsenal are the Magazines of

Moulmein, Meeaday, Tonghoo, Shouay Gheen, and Bassein, in addition to the large Force of all Arms stationed at Rangoon. Isolated as the Rangoon Arsenal is from India, whence all its Military supplies are drawn, it is manifestly a necessity that this Arsenal should be well stocked and maintained on a scale of perfect efficiency.

The responsibilities of the Ordnance Officer in charge are great, and his duties onerous, and notwithstanding that the Acting Inspector General, in framing this Report, has kept steadily in view the object of the re-organization, that is consolidation and improved economy, he yet feels it a duty to urge the great claims of the Ordnance Officer at Rangoon on the favorable consideration of Government. On a previous occasion, the Inspector General of Ordnance recommended the Commissary of Ordnance at Rangoon to be granted the staff allowance of a first class Bengal Commissary, but that was objected to by the Bengal Military Auditor General, the Acting Inspector General of Ordnance nevertheless deems the present staff salary incommensurate with the great responsibilities of the office, and from a conviction of the justice of the measure, and of its expediency as tending to keep alive in the Department a spirit of emulation, by holding out the Secunderabad and Rangoon Arsenals as prizes for the best qualified and most deserving Ordnance Officers, the Acting Inspector General solicits Government to place this Arsenal in the same grade as the Arsenal at Secunderabad, with a staff salary of Rupees 500, being an increase of Rupees 150 to the present salary, an increase which will only in a very trifling degree affect the large pecuniary saving to be realized by the reductions herein proposed.

The Acting Inspector General, consequent on the distance of this Arsenal from the Presidency, the source of supply, recommends that it should be self-relying, with respect to all those articles not exclusively of English manufactures; and should consequently possess efficient mechanical means and a good body of skilled Artificers. He is persuaded that while this system of local manufacture would prove an economical means of replenishing the Arsenal with a large class of articles in current use, it would also be of permanent benefit to the country in indirectly introducing a better standard of work, than local native undirected skill could produce.

The Acting Inspector General, in carrying out these views, contemplates no augmentation of the present cost of the subordinate Ordnance Establishments in Burmah, which, as sanctioned by Government in Extract Minutes of Consultation, No. 23, dated 4th January 1858, and 2187, dated 20th June 1859, is Rs. 7808-1-2.

SINGAPORE ARSENAL.

The Singapore Arsenal, with its present comparatively small Establishment, will, if the views recorded in the secret despatch of the Honorable the Court of Directors, and communicated in Extract Minutes of Consultation, No. 1955, dated 19th April 1858, be carried out, be greatly increased, and be placed on a footing with the ordinary Arsenals of this Presidency.

The extensive works for the defence of this Settlement, in course of construction by Captain Collyer, are reported to be actively progressing, and will on completion be heavily armed.

The Armament is intended eventually to comprise 164 Pieces of the heaviest calibre in position, with a Peace Establishment of 350 Artillerymen, and one Regiment of European Infantry, provided with Magazines, and all the material of war. Looking to these plans, the arrangement as recently sanctioned by Government, making the Arsenal at Singapore the chief working and supplying Arsenal for all the Troops in the Straits, under the Deputy Commissary now stationed at Penang, seems to be the most advisable; the supervision and responsibility of this Officer will then extend equally over the Magazines established at the dependencies of Penang and Malacca: this plan, which is strongly supported by His Excellency the Governor in the Straits, commends itself as the most economical and most efficient, in preference to the unconnected system which has hitherto obtained of three separate and weak Ordnance Establishments at Penang, Malacca and Singapore.

The Acting Inspector General does not propose to make any material change in the Arsenal at Singapore until the completion both of the defensive works and the proposed increased

Force be effected, and even when the change in the character of the Singapore Arsenal does take place, the Acting Inspector General does not conceive that it will much increase the aggregate Ordnance charges in the Straits, as the Arsenal at Penang may at the same time be reduced to a mere Dépôt containing Ammunition and Stores, sufficient only for the Troops dependent on it.

Under the circumstances set forth above, it is not practicable at present to fix finally the extent of the Straits Establishments. It may be observed that the Arsenal at Singapore should likewise be prepared to meet the ordinary demands of Her Majesty's ships of war, for articles of this country's manufacture.

Before proceeding to remark on the Grand Arsenal, and the Government manufacturing Establishments, which will be hereafter reviewed, the Inspector General, in closing his observations on the Provincial Arsenals, may state, that keeping efficiency primarily in view, without which there can be no true economy, he has directed special attention to the scale of Establishments attached to the Arsenals and Magazines in Bengal: but the difference of the circumstances of the two Presidencies, rather than the differences in Ordnance systems, has rendered this examination of little practical advantage, and he has therefore been obliged to look at the Ordnance Establishments of this Presidency with a single regard to their real requirements, bearing in mind the present improved means of intercommunication between that great Dépôt, the Grand Arsenal and its dependencies, in proposing those reductions which opened Rivers, Steam Vessels, and Railways, are in this day rendering safe and practicable.

GRAND ARSENAL, FORT SAINT GEORGE.

It is in the relative character of the Grand Arsenal, and its influence on the Provincial Arsenals attached to it, that the Madras Ordnance Department differs most from that of the Bengal Presidency.

This is a difference, not so much due to the systems of working the two Departments, as to the vast extent of the Bengal Presidency and the consequent difficulties in replenishing its distant Arsenals from resources stored in Fort William. In that Presidency it has therefore been found expedient to have great Arsenals of supply, such as Delhi and Allahabad, as large, and of not less importance than the Arsenal of Fort William, so that the Bengal Presidency Arsenal is from constitution, chiefly a simple Dépôt for receiving stores, and passing them on to the Arsenals referred to, retaining in stock, quantities only commensurate to the ordinary demands of Bengal: the great danger of this organization, is that should the great Provincial Arsenals be lost or destroyed, the Arsenal of Fort William is powerless to remedy the mischief, and the whole Department in the hour of peril becomes paralysed.

At Madras, on the contrary, the Grand Arsenal is the heart and main spring of the whole Ordnance system, and could, if all our Provincial Arsenals were destroyed, give forth from its own resources, ample supplies for new Dépôts and Magazines. We are indebted for these great advantages in the first place to the geographical features and position of the Presidency, to our long sea-boards, and the several different lines of communication with each of the inland Dépôts.

The practice of this Presidency, approved by long experience, has been to retain in the admirable, and, in this country, unequalled buildings constituting the Grand Arsenal, the main resources of the Madras Army; and when the position of the Arsenal is considered, its perfect security, its location on the coast, the facilities possessed for the receipt and despatch of stores by sea, and its vicinity to the Railway for despatch of stores by land, the arrangement is one that seems alike justified by true economy and sound policy.

The Acting Inspector General may further instance the singular advantage due to the position of the Grand Arsenal, in its relations with the large section of the Madras Army serving in Burmah; the stores are now despatched to Rangoon, or to Moulmein with a promptitude, ease and economy which would be impracticable under other circumstances. The Acting Inspector General will not enter into detail, as he has proposed in this paper, to offer only such

132
explanatory sketches as may be needed to place before Government, an outline of the working of the Ordnance Establishments.

Stock.—The Stock in the Grand Arsenal averages 80,00,000 Rupees, and includes every description and class of Military equipment prepared for issue, as well as ample stores of unmade up materials. The Arsenal also forms the great depository for all Marine, Electric Telegraph and Civil stores.

RECEIPTS AND ISSUES.—Being the chief source of periodical supply to all other Arsenals, its duties are necessarily very heavy, combined as they are with the landing and storage of all stores from England.

WARRANT OFFICERS' CHARGES.—The system of dividing the aggregate duties of the Arsenal into well defined and manageable individual charges, with individual responsibilities, has worked admirably; but the Public interests require that these charges should be confided to Warrant Officers of approved intelligence and character, a measure which it is difficult to carry out in consequence of the serious additional expenses falling on this class of men at the Presidency, consequent on the high rates of the necessaries of life and house rent, and there can be no question that Government would be benefitted by extending the number of Permanent Conductors. This arrangement would enable the Principal Commissary of Ordnance to select from those who have become available, by the reduction of other Establishments, three additional qualified men for the charge of important store sections of the Arsenal, and the Acting Inspector General respectfully proposes it for the sanction of Government. These additional Warrant Officers will be made available for the escort of stores from Arsenal to Arsenal; as well as to fill the places of Warrant Officers undergoing their probationary course in the Artillery Dépôt. These men would also be available for the new and important duties of proceeding with stores to Canada, remaining in charge of them at that Port should detention occur, and subsequently of accompanying the stores to Nagpore or Secunderabad, as needed. It may be noticed here, that all Warrant Officers doing duty in the Arsenal Fort William receive full Batta to meet the additional expense of a residence at the Presidency: the Permanent allowance of Rs. 30 granted in this Presidency is only equivalent thereto.

WORKSHOPS.—There are several large workshops attached to the Grand Arsenal, the chief one, fitted with very complete machinery worked by steam, and with a large Forge establishment, promises to supply the Ordnance Department at reduced rates, with many articles of equipment hitherto obtained from England. Attached to the Arsenal is a large Laboratory Establishment, where all the Rifle Ammunition for the Presidency is made up, besides many supplies for the Artillery; there is also an Armourer shop under the superintendence of a skilled Artificer sent from England; a Carpenters' shop, and a separate provision for making up buff and common leather Accoutrements.

With reference to the Proceedings of Government, No. 3242, dated 9th September 1859, the extent of the Laboratory Establishment attached to the Grand Arsenal, has been carefully reviewed, and the result is that the Acting Inspector General of Ordnance feels justified in proposing considerable reductions.—The cost of the Establishment is at present Rs. 851-15-8 per month, or Rs. 10,223-12-0 per annum; and he proposes to reduce it to Rs. 478-5-8 per month, thus making an annual saving of Rs. 4483-8-0 in this branch of the Grand Arsenal.

In the foregoing review of the several Provincial Arsenals, it has been proposed to maintain workshops only in the Arsenals of Pegu, Secunderabad and Nagpore, and on a small scale at

Bangalore and Cannanore, a larger proportion of general Ordnance work than heretofore, will consequently devolve on the workshops of the Grand Arsenal, it is therefore of the highest importance that the Establishments of the latter should be preserved in a condition of the fullest efficiency, for to weaken it would be destructive to the efficiency of all the non-working Arsenals.

For this reason, the Acting Inspector General does not propose to make any reductions in the permanent Artificer Establishment of the Grand Arsenal, he however proposes to hold the grade of Assistant Overseer, in which there are two vacancies, in abeyance experimentally for 12 months; and to reduce the number of Lascars to 400, dispensing at the same time with the services of one 1st, and one 2nd Tindal.

Establishment vide Appendix A.				
Cost of Grand Arsenal.				
1829.....	Rs. 13,206	13	9	
1836.....	" 11,598	10	7	
March 1859.....	" 10,963	4	1	
Proposed	" 10,680	9	7	

—These reductions will amount to a sum of Rs. 3,664-2-0 annually. The Acting Inspector General further contemplates a material change in the constitution of the Lascar Establishment, to be at first introduced in the Grand Arsenal, and if the system works well, afterwards in all other Arsenals. It is to substitute a proportion of labor obtained from the local market, for enlisted Lascars, to the extent of $\frac{1}{4}$ the number of the latter now allowed; which without at all affecting, as the Acting Inspector General believes, the efficiency of the Department, will, result in a considerable saving to the State; First by such local laborers only being employed when, and in the number, absolutely needed, but never exceeding 100, or $\frac{1}{4}$ of the Establishment; and secondly by thus diminishing, by 100 employes, the claimants to Pension. This proposition will be fully set forth in the Memorandum on Establishments, which will shortly follow this report.

The Acting Inspector General may briefly summarise the above.

Since the receipt of Extract Minutes Consultation, No. 835, dated 1st March 1859, the following are the alterations in the Ordnance Establishments effected and proposed.

I. The Madras Ordnance Establishment, maintained at Saugor, after the transfer of the Arsenal to the Bengal Authorities, has been finally withdrawn and broken up.

II. The entire abolition of the Vellore Arsenal is proposed, but a reduction in the cost of its establishment has already to some extent been effected.

III. The Arsenal at Bellary, proposed to be reduced to a Magazine. The Siege Train establishment authorized in Extract Minutes Consultation No. 2414, dated 9th July 1858, abolished; and a reduction in the permanent establishment already effected.

IV. Trichinopoly Arsenal proposed to be reduced to a Magazine; and reduction in the authorised permanent establishment already effected.

V. The Cannanore Arsenal to be maintained unaltered, as at present; a small reduction in the cost of establishment having been made since 1st March 1859.

VI. The abolition of the Masulipatam Arsenal proposed, with the entire reduction of its present cost; a small reduction in the establishments of both Vizagapatam and Masulipatam Arsenals already effected.

VII. The permanent Establishment of the Bangalore Arsenal to remain as at present, but the Laboratory Establishment sanctioned in Extract Minutes Consultation No. 612, dated 10th

February 1858, proposed to be discontinued; a small reduction in the cost of Establishment already made.

VIII. Secunderabad Arsenal to remain, as at present, a small reduction in the cost of its Establishment having been made since 1st March 1859. An increase of Rupees 150 to the Staff allowance of the Commissary of Ordnance recommended; notwithstanding which its charges will be less than they were on 1st March 1859. On the abandonment of Masulipatam as an Ordnance station, additional Magazine accommodation for the storage of Gun Powder &c. must be provided at Secunderabad.

IX. Sundry reductions in the present Establishment of the Nagpore Arsenal proposed, almost the whole of the temporary Establishment sanctioned for the Seetabuldee Hill in Extract Minutes Consultation No. 4242, dated 26th November 1857, as well as the addition to the permanent Establishment, sanctioned in Extract Minutes Consultation No. 4083, dated 17th November 1857, having been absorbed.

X. No alterations proposed to be made in the subordinate Establishment of the Ordnance Department in the Pegu Division, but an increase of Rupees 150 per mensem to the Staff allowance of the Commissary of Ordnance there stationed is strongly advocated, because of the extent of the charge and the corresponding responsibility.

XI. Malacca Arsenal abolished.

XII. The Singapore and Penang Arsenals proposed to be amalgamated, and the former hereafter enlarged, according to the armament to be there kept up.

XIII. In the Fort Saint George Arsenal Establishment, as well as in that of the Laboratory attached thereto, reductions have been made to the full extent consistent with present requirements; but an increase, indispensable to its efficiency, of three Permanent Conductors, for specific duties above set forth, is recommended.

If the foregoing proposed arrangements be carried into effect, the Commissioned, Warrant and Non-Commissioned Staff of the Ordnance Department will stand as below:

Under the proposed arrangements, excluding those allowed for the Saugor Field Force.

Under present arrangements.

First Class Commissaries	...	...	...	2	} Commissaries	...	...	...	...	...	7
Second Class Commissaries	...	...	...	3							
Deputy Commissaries	...	...	...	...	2	Deputy Commissaries	...	...	...	...	3
Assistant Commissaries	...	...	...	...	3	Assistant Commissaries	...	...	...	...	3
Deputy Assistant Commissaries	...	...	...	...	8	Deputy Assistant Commissaries	...	...	...	...	7
Conductors	...	...	...	...	...	41	Conductors	...	...	...	42
Sub-Conductors	...	...	...	...	...	35	Sub-Conductors	...	...	...	42
Store Serjeants	...	...	...	...	...	46	Store Serjeants	...	...	...	56

The financial effect of the alterations in all grades, consequent on the arrangements above submitted, will be seen at a glance from the annexed Table; and it may here be noted that the reductions already effected, and those proposed will amount to about 19 per cent on the cost of the Ordnance Establishments as they stood on the 1st March 1859, and will aggregate Rs. 96,637-5-0, exclusive of the saving of Rs. 37,000-2-0, which will accrue when the Ordnance Department with the Saugor Field Force is broken up.

Statement showing the Annual cost of the Ordnance Establishments; the Annual value

Cost of the Establishments; the Annual value																
	Saugor.		Vellore.		Bellary.		Bellary Siege Train.		Trichinopoly.		Cannanore.		Masulipatam.		Vizagapatam.	
ANNUAL.																
Cost of Establishment 1st March 1859...	14,321	6	10,539	4	17,392	9	9,957	2	22,859	4	13,635	6	22,775	3	12,901	12
Amount of Reductions effected up to this date.....	14,321	6	3,169	12	760	0	9,957	2	1,520	3	547	8	1,809	4	152	3
Present cost of Establishments.	0	0	7,369	8	16,632	9	0	0	21,339	1	13,087	14	20,965	15	12,749	9
Proposed Reductions. ...	0	0	7,369	8	6,870	8	0	0	7,994	14	0	0	20,965	15	0	0
Difference.....	0	0	0	0	9,762	1	0	0	13,344	3	13,087	14	0	0	12,749	9
Proposed Increase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost of Ordnance Establishment as proposed to be in future maintained ...	0	0	0	0	9,762	1	0	0	13,344	3	13,087	14	0	0	12,749	9
RESULTS.																
Actual saving effected, Rs.....					48,185	5										
Proposed savings, Rs ..	57,287	12														
Deduct proposed increase...	8,835	12														
					48,452	0										
Net amount of savings effected and proposed...					Total Rupees.....	96,637	5									
Per Centage of Net Savings on cost of																

N. B.—A further annual saving of Rs. 37,000-2-0 will be effected on the

of the reductions already effected, and the value of the reductions proposed to be made.

Bangalore.	Secunderabad.	Nagpore and Seeta-buldee Hill.	Pegu Division.	Malacca.	Singapore, including Labuan.	Penang.	Fort Saint George and Laboratory.	Total cost.
25,081	939,153 14	50,532	693,696 14	3,016 8	20,051 6	9,712 11	131,559 1	497,186 3
212 14	2,620 6	9,618 3	0 0	3,016 8	0 0	0 0	480 0	48,185 5
21,868 11	36,533 8	40,914	393,696 14	0 0	20,051 6	9,712 11	131,079 1	449,000 14
1,338 4	0 0	4,601 1	0 0	0 0	0 0	0 0	8,147 10	57,287 12
23,530 0	736,533 0	36,313 0	293,696 14	0 0	20,051 6	9,712 11	122,931 7	391,713 2
	1,800 0	0 0	1,800 0	0 0	0 0	0 0	5,235 12	8,835 12
23,530	738,333	36,313	295,496 14	0 0	20,051 6	9,712 11	128,167 3	400,548 14

Establishments, since 1st March, is about 19 per Cent.

abolition of the Ordnance Department, attached to the Saugor Field Force.

(Signed) G. W. Y. SIMPSON, Lieut.-Colonel,
Acting Inspector General of
Ordnance and Magazines.

APPENDIX A.

Statement showing the strength and cost of the several Ordnance Establishments in the Madras Presidency, during the years 1829, 1836, and 1st March 1859.

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	BANGALORE.						BELLARY.					
	1829.			1836.			1836.			1839.		
	No.	Cost.	No.	No.	Cost.	Proposed Cost.	No.	Cost.	No.	Cost.	No.	Proposed Cost.
Principal Commissary of Ordnance..	1	350 0 0	1	1	350 0 0	1	1	450 0 0	1	450 0 0	1	450 0 0
Deputy Commissary of Ordnance..	1	250 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Assistant Commissary of Ordnance..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Deputy Assistant Commissary..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Permanent Conductors..	3	354 0 0	2	1	115 7 0	1	1	354 0 0	3	354 0 0	1	145 14 0
Supervisors..	1	71 0 0	3	2	146 8 4	2	1	71 0 0	1	74 0 0	1	96 1 4
Sub-Conductors..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Assistant Supervisors..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Store Sergeants..	3	137 9 6	4	3	145 6 0	3	3	137 9 6	3	137 9 6	2	99 9 6
Laboratory Sergeants..	1	45 13 10	0	0	0 0 0	0	0	45 13 10	1	45 13 10	0	0 0 0
Laboratory Corporals..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Laboratory Men..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Foreman 1st Class..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Do. 2d do..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Do. 3d do..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Carnatic Ordnance Artificers..	0	0 0 0	13	2	52 0 0	2	10	174 0 0	0	0 0 0	1	41 0 0
Syngas..	2	46 5 4	2	1	23 2 8	1	1	23 2 8	2	46 5 4	1	23 2 8
1st Tindals..	2	17 8 0	2	1	8 12 0	1	1	8 12 0	2	17 8 0	1	8 12 0
2d Tindals..	2	14 0 0	2	3	21 0 0	2	2	14 0 0	2	14 0 0	1	7 0 0
Store Lascars..	100	633 5 4	100	85	538 5 4	73	462 5 4	633 5 4	100	633 5 4	65	411 10 8
Native Mistry Artificers..	1	17 8 0	0	0	0 0 0	2	32 0 0	17 8 0	1	14 0 0	0	0 0 0
Native Artificers..	27	232 12 0	14	13	98 14 9	13	39 13 7	225 4 0	16	112 8 0	13	92 9 3
Puckallies..	1	14 0 0	1	0	0 0 0	0	0 0 0	14 0 0	1	14 0 0	0	0 0 0
Conteopolies..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Moocchies..	0	0 0 0	0	0	0 0 0	1	7 0 0	0 0 0	0	0 0 0	0	0 0 0
Sweepers..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Cooly Lascars..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Writers..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Stationary..	0	17 8 0	0	0	0 0 0	0	0 0 0	17 8 0	0	0 0 0	0	0 0 0
Office Rent..	0	120 0 0	0	0	150 0 0	0	150 0 0	120 0 0	0	120 0 0	0	0 0 0
Writers &c., allowances and Stationary..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Armourer Pupils..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Total..	2324	6 0 0	2146	21	2,090 2 1	1,960	1311	2,170 6 0	2,290	2 0 0	1,449	8 1

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	CANNANORE.						MANGALAPATAM.					
	1829.			1836.			1836.			1839.		
	No.	Cost.	No.	No.	Cost.	Proposed Cost.	No.	Cost.	No.	Cost.	No.	Proposed Cost.
Principal Commissary of Ordnance..	1	250 0 0	1	1	250 0 0	1	1	350 0 0	1	350 0 0	0	0 0 0
Deputy Commissary of Ordnance..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Assistant Commissary of Ordnance..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Deputy Assistant Commissary..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Permanent Conductors..	1	118 0 0	1	1	145 14 0	1	1	145 14 0	2	236 0 0	2	201 12 0
Supervisors..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Sub-Conductors..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Assistant Supervisors..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Sub Overseers..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Store Sergeants..	2	91 11 8	1	2	99 9 6	2	99 9 6	137 9 6	3	137 9 6	2	99 9 6
Laboratory Sergeants..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Laboratory Corporals..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Laboratory Men..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Foreman 1st Class..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Do. 2d do..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Do. 3d do..	0	0 0 0	0	0	0 0 0	0	0	0 0 0	0	0 0 0	0	0 0 0
Carnatic Ordnance Artificers..	0	0 0 0	6	5	93 0 0	5	93 0 0	163 0 0	9	153 0 0	0	0 0 0
Syngas..	1	23 2 8	1	1	23 2 8	1	1	23 2 8	1	23 2 8	0	0 0 0
1st Tindals..	1	8 12 0	1	1	8 12 0	1	1	8 12 0	1	8 12 0	0	0 0 0
2nd Tindals..	1	7 0 0	1	1	7 0 0	1	1	7 0 0	1	7 0 0	0	0 0 0
Store Lascars..	38	240 10 8	38	31	196 5 4	31	196 5 4	760 0 0	120	760 0 0	95	601 10 8
Native Mistry Artificers..	1	15 0 0	1	0	0 0 0	0	0 0 0	15 0 0	0	0 0 0	0	0 0 0
Native Artificers..	15	139 12 4	9	14	91 5 0	10	71 0 4	225 4 0	17	121 4 0	14	98 14 9
Puckallies..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Etheasies..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Conteopolies..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Moocchies..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Toties..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Sweepers..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Cooly Lascars..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Writers..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Stationary..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Office Rent..	0	17 8 0	0	0	0 0 0	0	0 0 0	17 8 0	0	0 0 0	0	0 0 0
Writers &c., allowances and Stationary..	0	60 0 0	0	0	85 0 0	0	0 0 0	120 0 0	0	0 0 0	0	0 0 0
Armourer Pupils..	0	0 0 0	0	0	0 0 0	0	0 0 0	0 0 0	0	0 0 0	0	0 0 0
Total..	971	9 4 0	942	4 10	1,136 4 6	1,090	10 6	2,316 11 4	2,050	11 4	1,897	14 11

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	1829.				1836.				1st March 1859.				1860.			
	No.		Cost.		No.		Cost.		No.		Cost.		No.		Proposed Cost.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Principal Commissary of Ordnance	1	450 0 0	1	450 0 0	1	350 0 0	1	350 0 0	1	450 0 0	1	450 0 0	1	350 0 0	1	500 0 0
Commissary of Ordnance																
Deputy Commissary of Ordnance	1	260 0 0	0	0 0 0	1	120 0 0	1	120 0 0	1	260 0 0	1	260 0 0	1	120 0 0	1	120 0 0
Assistant Commissary of Ordnance	0	0 0 0	0	0 0 0	3	527 10 0	2	351 12 0	0	0 0 0	0	0 0 0	2	351 12 0	2	351 12 0
Permanent Conductors	3	534 0 0	2	357 4 0	3	437 10 0	3	437 10 0	2	356 0 0	2	357 4 0	2	291 12 0	2	291 12 0
Supervisors																
Sub Conductors	3	267 0 0	3	267 9 0	5	480 6 8	4	384 5 4	2	178 0 0	2	178 6 0	3	288 4 0	3	288 4 0
Assistant Supervisors																
Overseers																
Store Sergeants	2	91 11 8	2	91 11 8	5	248 15 9	3	149 6 3	3	137 9 6	3	137 9 6	3	149 6 3	3	149 6 3
Laboratory Corporals																
Laboratory Men																
Foreman 1st Class																
Do. 2nd do.	0	0 0 0	0	0 0 0	1	20 0 0	1	20 0 0	0	0 0 0	0	0 0 0	1	41 0 0	1	41 0 0
Do. 3rd do.	0	0 0 0	0	0 0 0	11	193 0 0	11	193 0 0	0	0 0 0	0	0 0 0	1	20 0 0	1	20 0 0
Carnatic Ordnance Artificers	2	46 5 4	2	46 5 4	3	69 8 0	1	23 2 8	2	46 5 4	2	46 5 4	2	46 5 4	2	46 5 4
Syngras	2	17 8 0	2	17 8 0	6	52 8 0	2	17 8 0	2	17 8 0	2	17 8 0	4	35 0 0	4	35 0 0
1st Tindals	2	14 0 0	2	14 0 0	6	42 0 0	3	21 0 0	2	14 0 0	2	14 0 0	4	28 0 0	4	28 0 0
2nd Tindals	100	633 5 4	100	633 5 4	180	1140 0 0	105	665 0 0	100	633 5 4	100	633 5 4	130	823 5 4	111	703 0 0
Store Lascars	4	56 0 0	1	14 0 0	2	28 0 0	0	0 0 0	4	56 0 0	3	45 8 0	3	42 0 0	1	14 0 0
Native Mistry Artificers	38	311 12 0	22	157 12 0	33	285 15 9	13	92 10 1	38	311 12 0	26	191 12 0	33	272 9 11	26	206 1 5
Native Artificers	2	22 6 4	0	0 0 0	2	22 6 4	1	11 3 2	1	11 3 2	0	0 0 0	2	22 6 4	2	22 6 4
Puckallies																
Bheasties	1	14 0 0	1	21 0 0	0	0 0 0	0	0 0 0	1	17 8 0	1	17 8 0	0	0 0 0	0	0 0 0
Conicopolies	1	7 8 0	1	7 8 0	1	10 8 0	1	10 8 0	1	7 8 0	1	7 8 0	1	10 8 0	1	10 8 0
Moochies	0	0 0 0	0	0 0 0	1	7 0 0	1	7 0 0	0	0 0 0	0	0 0 0	1	7 0 0	1	7 0 0
Toties	0	0 0 0	0	0 0 0	1	3 8 0	0	0 0 0	0	0 0 0	0	0 0 0	0	0 0 0	0	0 0 0
Sweepers																
Cooly Lascars																
Stationary																
Office Rent		120 0 0		120 0 0		170 0 0		170 0 0		120 0 0		120 0 0		150 0 0		150 0 0
Writers &c. allowances and Stationery																
Armourer Pupils																
Total		2,843 8 8		2,432 15 4		4,211 0 6		3,026 1 6		2,634 3 4		2,748 4 2		3,263 13 2		3,194 7 4

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	1829.				1836.				1st March 1859.				1860.			
	No.		Cost.		No.		Cost.		No.		Cost.		No.		Proposed Cost.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Principal Commissary of Ordnance																
Commissary of Ordnance																
Deputy Commissary of Ordnance																
Assistant Commissary of Ordnance																
Deputy Assistant Commissary																
Permanent Conductors																
Supervisors																
Sub Conductors																
Assistant Supervisors																
Overseers																
Sub Overseers																
Assistant Overseers																
Store Sergeants																
Laboratory Sergeants																
Laboratory Corporals																
Laboratory Men																
Foreman 1st Class																
Do. 2d do.																
Do. 3d do.																
Carnatic Ordnance Artificers																
Syngras																
1st Tindals																
2nd Tindals																
Store Lascars																
Native Mistry Artificers																
Native Artificers																
Puckallies																
Bheasties																
Conicopolies																
Moochies																
Toties																
Sweepers																
Cooly Lascars																
Writers																
Stationary																
Office Rent																
Writers &c. allowances and Stationery																
Armourer Pupils																
Total																

* One of these is a Warrant Officer.

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	SINGAPORE.						LABUAN.					
	1829.			1836.			1st March 1859.			1860.		
	No.	Cost.	No.	Cost.	No.	Proposed Cost.	No.	Cost.	No.	Cost.	No.	Proposed Cost.
Principal Commissary of Ordnance..												
Commissary of Ordnance..												
Deputy Commissary of Ordnance..												
Assistant Commissary of Ordnance..												
Deputy Assistant Commissary..												
Permanent Conductors..			1	175 14 0	1	175 14 0						
Conductors....												
Supervisors..			1	96 1 4	1	96 1 4						
Sub-Conductors...												
Assistant Supervisors..												
Oversers....												
Sub Overseers..												
Assistant Overseers..			2	125 9 4	2	125 9 4						
Store Sergeants..												
Laboratory Sergeants..												
Laboratory Corporals..												
Laboratory Men..												
Foreman 1st Class..			1	28 12 11	1	28 12 11						
Do. 2d do.												
Do. 3d do.												
Carnatic Ordnance Artificers..												
Syngrangs..			1	30 4 3	1	30 4 3						
1st Tindals..			2	20 8 0	2	20 8 0						
2d Tindals..			3	25 8 0	3	25 8 0						
Store Lascars..			50	391 10 8	50	391 10 8						
Native Mistry Artificers..												
Native Artificers..			21	381 0 0	21	381 0 0						
Puckallies..												
Bheastics..			3	25 8 0	3	25 8 0						
Canoe-poles..												
Moochies..												
Toties..												
Sweepers ..												
Cooly Lascars ..												
Writers ..			1	40 0 0	1	40 0 0						
Stationery ..												
Office Rent ..												
Writers &c., allowances and Stationery..												
Armour Pupils. .												
Total.				1,310 12 6		1,310 12 6						

Statement showing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	1829.				1836.				1st March 1859.				1860.			
	No.		Cost.		No.		Cost.		No.		Cost.		No.		Cost.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Principal Commissary of Ordnance	1	450	0	1	350	0	0	0	0	0	0	0	0	0	0	0
Commissary of Ordnance..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deputy Commissary of Ordnance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assistant Commissary of Ordnance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deputy Assistant Commissary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Permanent Conductors	2	236	0	2	236	0	0	1	145	7	0	1	145	7	0	0
Conductors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Supervisors	1	74	0	1	74	0	0	1	115	7	0	1	115	7	0	0
Sub-Conductors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assistant Supervisors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overseers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Overseers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Assistant Overseers	1	45	13	10	2	91	11	8	4	193	14	8	2	96	15	4
Store Sergeants	1	45	13	10	1	45	13	10	0	0	0	0	0	0	0	0
Laboratory Sergeants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laboratory Corporals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laboratory Men	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foreman 1st Class	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Do. 2d do.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Do. 3d do.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carnatic Ordnance Artificers	0	0	0	0	12	204	0	0	11	201	0	0	4	60	0	0
Syrangs	2	46	5	4	2	46	5	4	1	23	2	8	1	23	2	8
1st Tindals	2	17	8	0	2	17	8	0	1	8	12	0	1	8	12	0
2d Tindals	1	7	0	0	1	7	0	0	2	14	0	0	1	7	0	0
Store Lascars	90	570	0	0	90	570	0	0	75	475	0	0	50	316	10	8
Native Ministry Artificers	1	14	0	0	1	14	0	0	1	14	0	0	0	0	0	0
Native Artificers	27	225	4	0	18	131	14	0	19	136	15	6	9	62	12	5
Puckallies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rheustics	1	14	0	0	1	14	0	0	0	0	0	0	0	0	0	0
Conicopolies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moonchies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toties	0	0	0	0	0	0	0	0	1	7	0	0	1	7	0	0
Sweepers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cooly Lascars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Writers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stationery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Office Rent	0	17	8	0	0	17	8	0	0	0	0	0	0	0	0	0
Writers &c. allowances and Stationery.	0	120	0	0	0	120	0	0	0	0	0	0	0	0	0	0
Armourer Pupils..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total..	1,883	50	1,922	410	1,904	15	0	1,112	0	3	1,134	5	0	1,032	7	8

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	VIZAGAPATAM.						MALACCA.					
	1829.		1836.		1st March 1859.		1829.		1836.		1st March 1859.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Principal Commissary of Ordnance												
Commissary of Ordnance												
Deputy Commissary of Ordnance												
Assistant Commissary of Ordnance	0	0 0	0	0 0	1	200 0 0						
Deputy Assistant Commissary	1	190 0 0	1	190 0 0	0	0 0 0					1	175 14 0
Permanent Conductors												
Conductors					1	145 14 0						
Supervisors												
Sub Conductors					1	96 1 4						
Assistant Supervisors												
Overseers												
Sub Overseers												
Store Sergeants	1	45 13 10	1	45 13 10	2	99 9 6						
Laboratory Sergeants												
Laboratory Corporals												
Laboratory Men												
Foreman 1st Class												
Do. 2nd do.												
Do. 3rd do.												
Carnatic Ordnance Artificers					1	21 0 0						
Syngras												
1st Tindals	1	8 12 0	1	8 12 0	2	17 8 0						
2nd Tindals	0	0 0 0	0	0 0 0	2	14 0 0					1	8 8 0
Store Lascars	18	114 0 0	18	114 0 0	45	285 0 0					6	47 0 0
Native Mistry Artificers	0	0 0 0	0	0 0 0	2	28 0 0						
Native Artificers	6	47 8 0	6	47 8 0	10	76 1 6						
Puckallies												
Bheasties												
Conicopolies												
Moochies												
Toties					1	7 0 0						
Sweepers												
Cooly Lascars												
Writers												
Stationary												
Office Rent		17 8 0		0 0 0		0 0 0						
Writers &c. allowances and Stationery		23 0 0		23 0 0		85 0 0						20 0 0
Armourer Pupils												
Total	418	9 10		431 1 10		1,075 2 4					1,062	7 5

Statement shewing the strength and cost of the several Ordnance Establishments, &c.—(Continued.)

ESTABLISHMENT.	SAUGOR.						1860.					
	1829.		1836.		1st March 1859.		1829.		1836.		1st March 1859.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Principal Commissary of Ordnance												
Commissary of Ordnance												
Deputy Commissary of Ordnance												
Assistant Commissary of Ordnance												
Deputy Assistant Commissary												
Permanent Conductors												
Conductors												
Supervisors												
Sub-Conductors												
Assistant Supervisors												
Overseers												
Sub-Overseers												
Assistant Overseers												
Store Sergeants												
Laboratory Sergeants												
Laboratory Corporals												
Laboratory Men												
Foreman 1st Class												
Do. 2nd do.												
Do. 3rd do.												
Carnatic Ordnance Artificers												
Syngras												
1st Tindals												
2nd Tindals												
Store Lascars												
Native Mistry Artificers												
Native Artificers												
Puckallies												
Bheasties												
Conicopolies												
Moochies												
Toties												
Sweepers												
Cooly Lascars												
Writers												
Stationery												
Office Rent												
Writers &c. allowances and Stationery												
Armourer Pupils												
Total											1,267	7 2

Referred for the observations of His Excellency the Commander-in-Chief.

1st December 1859.

From the Adjutant General of the Army, Fort Saint George, 7th December 1859, No. 1310; to the Secretary to Government, Military Department.

I have the honor, by order of the Commander-in-Chief to acknowledge the receipt of the letter from the Acting Inspector General of Ordnance and Magazines, dated 28th ultimo No. 303, enclosing a Memorandum on the revision of Ordnance Establishments, referred for His Excellency's observations on the 1st instant.

2. Sir Patrick Grant has perused with the greatest interest this very clear and valuable Memorandum, and the observations His Excellency has to offer upon it are subjoined as follows:—

Vellore Arsenal.—Suggesting that until the erection of Magazines at Saint Thomas' Mount for the Storage of the reserve Gun Powder of the Presidency, the main Powder Magazine at Vellore, so long as the Station continues in Military occupation, be retained.

Bellary Arsenal.—Strength of Force in the Ceded Districts.

The Commander-in-Chief concurs in this suggestion, if Storage for the Reserve Powder cannot be provided at the Presidency. His Excellency considers this is an additional reason for expediting the completion of the Magazines at Saint Thomas' Mount.

The Force His Excellency recommended for the Ceded Districts is,

- 1 Regiment Light Cavalry.
- 2 Batteries.
- 1 Reserve Company of Artillery.
- 1 Regiment European Infantry.
- 5 Regiments Native Infantry, viz.,
 - Bellary..... 3
 - Kurnool..... 1
 - Cuddapah..... 1

Total... 5 N. I.

Trichinopoly Arsenal.—Strength of the Force in the Southern Division.

The Force quoted by the Inspector General as that proposed by the Commander-in-Chief is incorrect, 5 not 3 Regiments of Native Infantry was proposed by His Excellency for the Southern Division, viz.,

- Trichinopoly..... 3
- Palamcottah..... 1
- Quilon..... 1

Total... 5 N. I.

Cannanore Arsenal.—I. Strength of Force in the Provinces of Malabar and Canara.

The Troops the Commander-in-Chief proposed for Malabar and Canara were;—

- 1 Battery.
- 1 Reserve Company of Artillery.
- 1 Regiment European Infantry.
- 5 Regiments Native Infantry, viz.,
 - Cannanore..... 3
 - Mangalore..... 2

Total... 5 N. I.

but if the water communication is completed between Cannanore and Mangalore one of the two Regiments of Native Infantry specified for Mangalore may be withdrawn as His Excellency has already said.

II.—Suggesting that the Cannanore Arsenal be continued on its present very moderate footing.

The Commander-in-Chief will not for the present press the reduction of the Cannanore Arsenal but His Excellency would hope the reduction may be carried out when the Railway is completed.

Masulipatam Arsenal.—I. Abandonment of the Arsenal and the erection of inexpensive receiving Sheds at Cocanada and maintaining Vizagapatam as the working Arsenal of the Northern Division.

II.—Vizagapatam Arsenal. Buildings unfit for Ordnance purposes.

III.—Necessity of simple receiving Sheds at Cocanada for the reception of goods intended for the Arsenals of Nagpore and Secunderabad.

IV.—Local Establishment for Cocanada not contemplated, &c.

V.—One Arsenal for Northern Division sufficient.

Bangalore Arsenal.—I. The only working Establishment for two Divisions of the Army viz., the Mysore and Southern Divisions besides Irregular Corps no reduction in its already very moderate Establishment can be safely proposed.

II.—Temporary Establishment sanctioned in Minutes of Consultation No. 612, dated 16th February 1858, to be dispensed with.

III.—Troops in the Mysore Division dependent on the Arsenal.

Large Arsenals should only be maintained at Stations where European Troops are cantoned and the abandonment of the Masulipatam Arsenal has been most properly, His Excellency thinks, determined upon.

The Commander-in-Chief would refer to his report on Vizagapatam Arsenal and Ordnance buildings. An entirely new and improved set must be built.

These receiving Sheds will certainly be necessary.

The remarks of the Inspector General under these heads are very just.

The Commander-in-Chief quite concurs that no reduction can be effected in the present Ordnance Establishment of the Bangalore Arsenal under its modified circumstances.

His Excellency quite concurs in the desirableness of dispensing with this temporary establishment.

The Force the Commander-in-Chief proposed for the Mysore Division exclusive of the Malabar and Canara Districts, was:—

- 3 Batteries.
- 1 Reserve Company of Artillery.
- 1 Regiment of Dragoons.
- 1 Regiment European Infantry.
- 6 Regiments Native Infantry, viz.:—
 - Bangalore..... 3
 - Mercara..... 1
 - Hurryhur..... 1
 - Mysore..... 1

Total... 6 N. I.

Secunderabad Arsenal.—I. Peculiar position and consequent liabilities of the Arsenal consequent on the reduction of the Bellary Arsenal.

II.—Force dependent on the Arsenal.

The Commander-in-Chief most certainly thinks that the truest economy would be to render the Secunderabad Arsenal as complete and self-reliant as practicable.

The regular Force proposed for Secunderabad and Jaulnah was:—

- Secunderabad.*
 - 1 Troop Horse Artillery.
 - 2 Horse Field Batteries.
 - 1 Reserved Company Artillery.
 - 1 Regiment Dragoons.
 - 2 Regiments of Infantry.
 - 1 Regiment Light Cavalry.
 - 4 Regiments Infantry.
 - 2 Companies Sappers.
- Jaulnah.*
 - 1 Troop Horse Artillery.
 - 1 Reserve Company Artillery.
 - 1 Regiment Light Cavalry.
 - 1 Regiment European Infantry.
 - 2 Regiments Native Infantry.

IV.—Responsibilities of the Arsenal and additional Magazine accommodation.

The Commander-in-Chief fully concurs in the views expressed by the Inspector General with respect to the Ordnance Establishments at Secunderabad.

Nagpore Arsenal.—I. Ordnance Establishments of the three Presidencies hitherto worked with little concert or material co-operation.

It is most essential that all Arsenals whether Bengal, Madras, or Bombay, should be brought as much into mutual co-operation and support as circumstances and localities may render practicable and assimilation in Artillery and Ordnance matters was strongly pressed in the Commander-in-Chief's Minute of the 21st November 1856.

II.—Importance of the Arsenal Establishment. Proposed reduction salary of Commissary of Ordnance less than that drawn by an Ordnance Officer in charge of a 2nd class Arsenal in Bengal.

The Commander-in-Chief entirely concurs with the Inspector General's opinions in regard to the Nagpore Ordnance Establishments.

Rangoon Arsenal.—Recommendation to place this Arsenal in the same grade as the Arsenal at Secunderabad with a Staff salary of Rs. 500 being an increase of 150 Rupees to the present salary.

The Commander-in-Chief supports this recommendation and concurs in all the Inspector General states with respect to Rangoon.

Singapore Arsenal.—Proposes not to make any material change in the Arsenal until the completion both of the defensive works and the proposed increased Force be effected.

These points must be settled before making any change in the Singapore Ordnance Establishments.

Grand Arsenal Fort St. George.—I. Relative character and its influence on the Provincial Arsenals attached to it that the Madras Ordnance Department differs from that of the Bengal Presidency—this difference not due to the system of working the two Departments but the vast extent of the Bengal Presidency which requires to have great Arsenals, such as Delhi and Allahabad, as large as Fort William, so the Bengal Presidency Arsenal is from constitution chiefly a simple Dépôt for receiving Stores and passing them on to Arsenals referred to, and the great danger of this organization that should the great Provincial Arsenals be lost or destroyed the Arsenal of Fort William is powerless to remedy the mischief.

The system failed alone in the instance of the Delhi Arsenal and it failed there because no attention was paid to the warnings of each successive Commander-in-Chief in India from Sir Edward Paget to Sir Charles Napier, embracing a period of more than thirty years.

II.—Advantage of the Grand Arsenal in the facility afforded of despatching Stores to Rangoon or to Moulmein with ease and economy which would be impracticable under other circumstances.

The Commander-in-Chief entirely concurs in the Inspector General's remarks on this head.

III.—Warrant Officers charges. Recommendation for three additional permanent Conductors for the charge of important store sections of the Arsenal proposed for the sanction of Government.

The Commander-in-Chief thinks the proposed increase necessary.

VI.—Workshops to be maintained only in certain Arsenals.

The Commander-in-Chief concurs with the Inspector General in considering it of importance that the Grand Arsenal Working Establishments should be preserved in a condition of the fullest efficiency.

3. In conclusion, the Commander-in-Chief thinks that it is no more than just, that the supernumeraries caused by the proposed reductions should be disposed of as suggested by the Inspector General, and that it is desirable that these reductions should be subject to revision and report after having been twelve months in active operation.

312
ORDER, No. 4480, 17th December 1859.

The Government have read with great satisfaction the foregoing Memorandum No. 2, on the re-classification of the several Arsenal Establishments in this Presidency, and are of opinion that Lieutenant Colonel Simpson deserves great credit for the clear, effective, well-considered revision he has made of those important Establishments.

2. The several reductions which have been already effected and the further reductions which it is found can be made are approved.

3. Authority is granted for the entire abolition of the Vellore Arsenal. Until the erection of Magazines at the Mount for the storage of the reserve Gun Powder of the Presidency, the Main Powder Magazine at Vellore, will be retained, so long as the station continues in Military occupation, if storage for the Powder cannot be provided in the Presidency.

4. The Bellary and Trichinopoly Arsenals will be reduced to the class of Magazines.

5. In deference to Colonel Simpson's opinion, the Cannanore Arsenal will be continued, for the present on its existing footing, but the opening of the Railway from Madras to Beypore and the completion of the Backwater Canal between Cannanore and Mangalore, will soon allow of a reduction both of the Military Force and of the Stores on this Coast.

6. In Paragraph 3 of Order dated 16th November 1859, No. 4068, sanction was given for the Arsenal at Masulipatam being abolished and the supplies of Stores hitherto made from it, dispatched from the Arsenal of Fort Saint George—Stores intended for the Arsenals at Secunderabad and Nagpore will be transhipped at Cocanada, and the Arsenal for the Northern Division will be Vizagapatam. This makes it more than ever important that there should be no relaxation in the endeavors to improve the navigation of the Godavari and to complete the communication by Canal between Cocanada and Vizagapatam.

7. The Resident at Hyderabad will be addressed on the subject of the additional Magazine accommodation that will be required at Secunderabad consequent on the abandonment of Masulipatam as an Ordnance station.

8. With the exception of the partial reductions mentioned by the Acting Inspector General, the Bangalore, Secunderabad, Nagpore, and Rangoon Arsenals will be maintained on their present footing. The Governor in Council concurs in the recommendation of Colonel Simpson that the Staff salary of the Officers in charge of the important Arsenals at Secunderabad and Rangoon should be increased to 500 Rupees a month, and application will be made to the Government of India, for the requisite authority.

9. Sanction was accorded under date 28th October 1859, No. 3798, to the plan of maintaining at Singapore the chief working and supplying Arsenal for all the Troops in the Straits, with subordinate Magazines at Penang and Malacca, and this should be carried into effect as soon as the works at Singapore are in a sufficiently forward state.

10. While Colonel Simpson proposes some reduction of expenditure in the Central Arsenal in Fort Saint George, he recommends that the Establishment should be maintained in the highest degree of efficiency. In this the Governor in Council entirely concurs, as well as in the proposals to substitute labour obtained from the local market for enlisted Lascars, to the extent of one-fourth of the latter now allowed, and to increase the number of permanent Conductors by selecting for the charge of important store sections of the Arsenal, three additional qualified men from those who have become available by the reduction of other establishments. The sanction of the Government of India will be requested for the allowance payable to the proposed additional permanent Conductor.

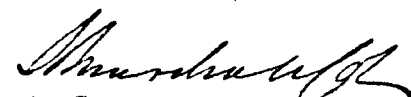
11. His Honor in Council likewise agrees with Colonel Simpson that, in making the reductions in the Establishments of the Ordnance Department, while men who have been recently employed should be at once discharged, persons who have claims on the Government from length of service, good character, special skill in their trades, should be appointed to other Arsenals as supernumeraries to be gradually absorbed as vacancies occur, and that enlistments in the Ordnance

Department of either Lascars or Artificers should be discontinued until this absorption has been completed.

12. Although the reductions now sanctioned are as extensive as the present circumstances of the service will permit, the diminution of our Military Force and the improvement of our means of communication, especially by Rail and Canal, will at no distant period allow of arrangements being carried further in the same direction, and instead of confining himself to a single report at the end of twelve months, the Inspector General of Ordnance will make a short report with his Annual Estimate, shewing what reductions have been made in the course of the year and what further arrangements he proposes for the efficiency and economy of his Department.

13. The foregoing letter from the Adjutant General will be communicated to the Inspector General of Ordnance, and both the Inspector General's Memorandum and Adjutant General's letter will be communicated to the Military Auditor General.

(True Extract.)


Adj. Secretary to Government.

To the Inspector General of Ordnance.

- „ Adjutant General.
- „ Military Auditor General.
- „ Accountant General.
- „ Department Public Works.
- „ Quarter Master General.
- „ Commissary General.
- „ Military Finance Commission.

for information

With 5 spare copies

Public Works 1860 Report
Pro. of Govt. 10th February.

N^o 300

Proceedings of the Madras
Govt in the Military Department.

Dated 14th December 1859.

Recd. 1st February 1860.

N^o 279.

Ordered to be com-
municated to the Chief
Engineer.

W. J. W. J. W.

Fort St. George
3rd Feb 1860

Copy to the Chief Engr.
Dispt. 3.

Further P. W. C. 1861

N^o 47 + 48

1859. 3rd Feb.

When order