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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 1. 4. 59

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Fort Saint George, Public Works Consultation of 1st April 1859.

No. 1. Read the following letter from Lieut.-Colonel E. LAWFORD, Officiating Chief Engineer; to J. D. BOURDILLON, Esq., Secretary to Government, dated 16th December 1858, No. 6359.

SIR,

Enclosure 7.

No. 5886.
No. 6199.

Adverting to Extract Minutes of Consultation, 14th November 1858, No. 2371, and the possible delay that may occur in deciding on the question of the applicability of the Bengal Code of Public Works to this Presidency, reported on in my letters of the 30th November and 10th December 1858, I have the honor to submit herewith the documents constituting the Annual Report on the operations of the Department required by paras. 11, 12 and 13 of the orders at page 318 of the Circular Order Book.

2. Enclosure No. 1 which was submitted by Colonel Faber on the 16th June last contains the report on the executive operations of the department contemplated in para. 11.

Extract Minutes of Consultation, 22nd August 1857, No. 1621.

1856-57	Rupees	26,368-14
1857-58	„	32,410-12
	Increase	6,043-14

3. Enclosure No. 2 supplies the information required in regard to the traffic of the East Coast Canal by the orders noted in the margin. It consists of five tables marked from A to E. Table A gives a comparative statement of the toll collections during the past two years, and it will be seen from it that there has been an increase of 13,339 tons of miscellaneous produce paying a toll of Rupees 3,334-12, and of 10,836½ tons of salt on which Rupees 2,709-2 were levied. Table B gives a detailed account of the tonnage of each sort of goods that arrived at the Basin during the official years 1856-57 and 1857-58, and the amount of toll collected on it. It will be observed from this statement also that there has been a large increase on the whole in the different species of cargo carried on the canal. Table C shews the villages which make use of the canal, their produce, and the tolls they pay, from which it will be perceived, that the boats which came from the new cut between Streeharicottah and Doogoorauzpatam, have increased from 169 in 1856-57, carrying 2,895 tons, to 390 in 1857-58, carrying 6,362 tons, with an increased toll of Rupees 866-12. Table D shews the number of boats registered on the canal books of each dimension, and hence it appears that the number of new boats built in the past official year was 54, having a tonnage of 849. Table E exhibits the amount of monthly toll collected on miscellaneous produce and salt, giving Rupees 32,410-12 as the collections of the entire year.

Vide page 330, Circular Order Book.

4. Enclosure No. 3 is a Register of Boats and Traffic that passed the Shediancoopam lock on Cochrane's canal, and other locks on the Godavery and Kistna channels. It is prepared in accordance with the order of Government of 5th July 1856, No. 1110.

Vide para. 1.

5. As regards the results of improvements, which are required to be reported on in para. 12, of the section of the Code already quoted, I beg to state that no new works of any magnitude have been carried on during the past year, whose effect on the improvement of the country deserves special mention. The money results of works formerly constructed are detailed in the statement of remunerative works, forming an appendix to the annual progress report, and a copy of this document is herewith transmitted as enclosure No. 4, for the sake of rendering the present report complete.

6. Enclosure No. 5, is a statement of Audit in the Central Office for the past official year, and exhibits the following results;—

	No.	Amount.		
Bills on hand on 1st May 1857	458	13,41,399	10	6
Received during the official year 1857-58	6,119	118,12,784	7	5
Total	6,557	131,54,184	1	11
Passed by the Chief Engineer	2,037	50,28,014	5	11
Recommended for the sanction of Government.	334	2,21,852	0	9
Examined and returned for explanation or correction	475	12,36,330	13	1
Total disposed of	2,846	64,86,197	3	9
Balance remaining on hand on 1st May 1858	3,731	66,67,986	14	2

7. It will be perceived that the balance remaining on hand on 1st May 1858 was much greater than that on 1st May 1857. This is owing to the very large number of bills received in the year under review, amounting to no less than 118¼ lacs of Rupees, appertaining chiefly to the unpassed expenditure up to 30th April 1856, written off in the books of the Collectors and Accountant General. The Government have been informed, by the report noted in the margin, that by the sternuous exertions made in the current year, the whole of the above arrears has been cleared off.

Dated 15th December 1858, No. 6323.

8. Agreeably to the observations contained in Extract Minutes of Consultation 3rd May 1858, No. 830, the classified synopsis of passed expenditure, and the list of Bills exceeding 5,000 Rupees each heretofore entered in the Annual Reports, have been omitted.

Para. 25.

9. Enclosure No. 6, is a statement of the issues of Mathematical and Surveying instruments, as well as of machinery and tools issued to the different Districts during the year under report. The issues reported in it have been made from time to time on Indents forwarded by the District Engineers, and have been regulated by the exigencies of the Service. They do not, therefore, call for any particular remark.

10. The only point remaining to be noticed is the subject of rates and prices adverted to in para. 13 of the 1st Section of the Code. The returns received from the District Engineers do not enable me, I am sorry to say, to lay any valuable information before Government respecting this enquiry, and it is quite evident that this subject can only be properly dealt with after a careful study of the bills of actual charges in general, for no sets of rates, arbitrarily fixed for a District without reference to the extent and position of the works, can be depended on; and I can only hold out the hope of being able to furnish a reliable opinion of the moderation or otherwise of the cost of public works after a further period of scrutiny into the accounts. I must, therefore, reserve it for a future special report as already intimated in para. 7 of my letter of the 30th October last, No. 5029.

Page 318, Circular Order Book.

11. Finally, in compliance with a wish recorded by Colonel Faber previous to his departure on sick leave, I beg to forward, for the information of Government, copy of a report by the Superintendent of the Lithographic Press attached to the Central Office, on the work performed in that Department during the year 1857-58, and of a Memorandum prepared thereon under the orders of the Chief Engineer.

Enclosure No. 7.

Letter from Colonel C. E. FABER, Chief Engineer; to the Chief Secretary to Government, dated 14th June 1858, No. 822A.

SIR,

The retrospective administration narrative of the Madras Public Works, which is now due for 1857-58, as required by the orders dated Fort William, 21st September 1855, has been influenced so largely by the still prevailing political convulsions of the North Western parts of the Anglo Indian Empire, that, although the tranquillity of the Madras Presidency can scarcely be said to have been itself disturbed, there is not a single branch of Public Works Report free from the deplorably injurious results of the wide-spread rebellion, which first broke out but a few days after the commencement of the official year, whose proceedings I am now to pass under condensed review, for the information of the Right Honourable the Governor in Council, and for transmission to the Government of India.

Extract Minutes of Consultation, No. 1497, 24th November 1855.

2. The discouraging difference between prospective expectation or promise and actual performance, which, has so curiously attached itself as an inseparable attendant of the D. P. W. ever since its recent comprehensive reform and re-organization, seemed not unlikely to be partially suspended, when the season of 1857-58 set in on the 1st May.

3. There appeared to be good reason, in the early part of last year, for expecting a less rigorous restriction in the approaching season, notwithstanding that the allotment of only 22 lacs for the improvements of 1856-57 had fallen so far below the previous anticipations; and in the meanwhile matters had been gradually settling generally down under the newly-formed professional Executive, Tanjore alone continuing to form the exception of P. W. management, being, as of old, by the Revenue Officers of the District.

4. So early as the 12th March 1857 the orders of the Madras Government on the Budget for 1857-58 were circulated to the whole of the officers in the Mofussil; greatly increased facilities were thereby created for the receipt of public funds from the District Treasuries, and with a Budget List, No. 2, amounting to Rupees 37,46,292, and with No. 3 for repairs reaching a total of 21,83,442, thus giving on aggregate of Rupees 59,29,734 available for actual expenditure, and distributed, moreover, with an equality going far to redress the previous practice of favoring certain special Districts, it must be admitted, that, however much the prospective operations on an immediate outlay of about 60 lacs of Rupees might fall short of the executive capabilities, and still more of the actual wants of the Southern Presidency, yet that no such fair and encouraging opportunity of progress had ever hitherto presented itself to the Madras D. P. W.

5. Profiting then by the useful interval so considerably and wisely bestowed by Government between the 12th of March and 1st of May 1857, many District Engineers, in full reliance on the conclusive nature of their instructions, had completed all preliminary arrangements necessary for actual operations being vigorously set on foot at day break on the very first day of the season. It must, however, now be the irksome future scope of this paper to set forth the chief causes that have unhappily combined to nullify more encouraging expectations of progress, general maintenance, and improvement than any former Departmental conjuncture.

Extract Minutes of Consultation, No. 461, dated 12th March 1857.

6. By far the most influential circumstances to be enumerated, under this view, are the retrenchment* of the expenditure, and the sweeping reduction† of P. W. establishment, rendered unavoidable by the Mutinies. The former was cut down from Rupees 64,19,784 to 38 lacs on all kinds of Public Works, and the latter was reduced by nearly 25 per cent. of its entire strength, or in salaries from 16,01,454 Rupees to 12,60,810 Rupees per annum. By these means the actual operations of the year have, of course, materially suffered, having in fact been strictly confined to Military works, and to some few others of an indisputably emergent character.

* Extract Minutes of Consultation, No. 1372, dated 17th July 1857.

† Government Gazette Extract 18th July 1857.

7. But the foregoing restrictions thus imposed, have been found practically impossible as regards works of irrigation, for upon their due maintenance, a very great portion of the land revenue of the Madras Presidency is dependent. The damage caused by the periodical rains, and the

mischief inflicted by a Cyclone which visited and devastated parts of Nellore and Cuddapah on the 2nd November 1857, rendered it absolutely necessary to relax the restriction, in the first instance, in favor of only a few Districts, but ultimately in almost every one, so that the original sum allotted* for repairs of hydraulic works, has been fully expended, and probably even exceeded. It is to be remembered that the reservoir which supplies water for irrigation, owes its existence, in most cases, to a simple weir or dam of masonry or of earth thrown across some mountain stream or channel, and that by every monsoon, sundry injuries are more or less inflicted, which, unless immediately repaired, seriously impair the performance of its function in the ensuing season. Hence, of all description of repairs, those to irrigation works are of the most urgent character, and they cannot be postponed without generally admitted injustice to the vested rights of landholders, and without serious though smaller injury to the Government Revenue.

* Budget List, No. 3, page 57, Rupees 12,77,316.

8. Again, amongst the minor yet not to be omitted causes contributing to retard operations, may be mentioned—1st, an indisputable general rise of prices for both materials and labour throughout the Presidency; attributable, 1st, partly to the demands created by the Railway, 2ndly, partly to the impetus given some three years ago to Public Works generally, 3rdly, partly to the locally high prices of grain, and, lastly, partly perhaps to the gradual modification every where of material value, brought about by the vastly increased amount of the precious metals in circulation by the gold discoveries, and by the large introduction to every place from California, and by trade from the Australasian Colonies during the last 8 or 9 years, thus disturbing first in Europe, and now in Asia, the relation between gold and its former representative value of goods and labour. A generally alleged want of co-operation of the Subordinate Revenue Officials with those of the Department Public Works, whereby the latter, new to their executive ranges, and unacquainted with their resources, have to encounter highly formidable obstacles in procuring materials and labour unless indeed at high prices and after much loss of valuable time; the novel and exceeding insecurity attending the local transport and remittance of specie from one place to another, has also operated in its measure to greater or less delay, according to circumstances. Formerly money was sent by Tahsildars under an escort and in the custody of police or talook peons, who, known to heads of villages as in authority, were both readily protected and expedited in their journey; whilst now, on the contrary, the single lascar attached to the Executive Officer or Subordinate, is the sole custodier of treasure, and he, altogether unknown to the village authorities, is left to his own devices, so that, in not a few instances, money thus carelessly guarded or altogether unprotected, either has been abstracted really, or allegations of robbery are confidently put forth to the inferential establishment, of inadequate protection being the prevailing opinion. However, it is to be hoped, that as the officers of the Department and their servants become better known to the people within their respective ranges, the village authorities will no longer fail to pass specie forwarded from limit to limit in safety. Perhaps also the Government may hereafter reconsider the present orders, which, based on the independence of the D. P. W. of all Governmental assistance, rule, that funds whether for work peoples' wages, or for salaries of officers, shall be at the responsibility of the District Engineer from moment of Treasury issue and in transitu to place of disbursement.

9. The Extract Minutes of Consultation 461, of 12th March, gave the subjoined figured Statement as applicable for the operations of 1857-58, *viz.*

	List No. 1.	List No. 2.	Repairs.	Total.
Irrigation Works..	1,65,000	10,82,226	12,77,316	25,24,542
Communications.	3,02,050	19,99,388	7,18,958	30,20,396
Buildings.	23,000	6,64,678	1,87,168	8,74,846
Total.	4,90,050	37,46,292	21,83,442	46,19,784

making thus a grand total of Rupees 64,19,784, exclusive of the Mysore and Hyderabad Military works, for which a separate provision was made as follows: including repairs,*

Mysore..................	Rupees	1,05,000
Hyderabad............	„	3,39,887
Total.........		4,44,887

* Letter to Government of India, No. 560, 27th March 1857.

10. But the despatch of the Government of India, dated 3rd July 1857, No. 3265, cut the above expenditure down to 38,00,000 Rupees in the aggregate, *viz:*

List No. 1.	Salem Jail.....................	20,000
„ „ 2.	Military Works, &c...........	4,67,075
	Buildings..........	65,293
	Municipal and Marine improvements.......	34,810
	Irrigation.......	2,60,000
	Communications..............	6,85,000
No. 3.	Repairs of all kinds.........	14,67,822
	Emergent Works............	2,60,113
	Secunderabad Barracks......	3,39,887
	Bangalore Barracks.........	2,00,000
	Total.................	38,00,000

11. Thus by the financial demands of the Empire generally, was necessitated the stoppage of many works which had been commenced during the brief and fallacious interval adverted to in para. 5 at the beginning of the Official year, and thus also were arrested, many others that had long been under prosecution on previous sanctions.

12. The total expenditure of the year under all restrictions, and difficulties entailed upon this Presidency by the precarious position of the year's Revenue in the Upper Provinces may be reckoned at Rupees 40,87,025, for new works and repairs, namely:

For Irrigation Works................................	4,38,108
Communications...	4,96,080
Buildings...	11,38,607
Total Rupees ..	20,72,795

and for repairs under the same heads, *viz:*

For Irrigation Works................................	12,70,656
Communications.....................	5,34,757
Buildings....................	2,08,817
Total Rupees...	20,14,230
thus giving a grand total of Rupees...	40,87,025

13. A more detailed and classified synopsis of the expenditure is given agreeably to the orders of Government in the subjoined Statement, from which it will be perceived that the limit on the aggregate outlay fixed by the Government of India has been but very slightly exceeded, although in "repairs" it has been found quite impracticable for reasons already assigned, to restrain the cost of making good dilapidations and damages within the prescribed margin; and if the present were not rather a record of what has than of what ought to have been performed, I should have availed myself of this, as of every other occasion, to expose the erroneous principle of parsimonious maintenance of the numerous hydraulic constructions established for the artificial irrigation of rice and cane cultivation.

I. *Expenditure on New Works during the year 1857-58.*

	Irrigation Works.	COMMUNICATIONS.				BUILDINGS.							Total.
		Roads and Bridges.	Navigable Canals.	Ports and Harbours.	Ferry Boats.	Military.	Revenue.	Public.	Judicial.	Ecclesiastical.	Marine.	Educational.	
Ganjam	2,712	35,304	6	383	290	476	2,153	3,784	167	175	...	...	45,450
Vizagapatam	...	4,322	...	...	...	5,646	2,650	4,976	...	297	220	...	18,111
Godavery Division	1,52,286	8,264	19,895	20,199	...	12,117	...	63	519	488	734	4	2,14,569
Kistnah Division	82,166	16,844	...	...	482	4,107	...	9,800	104	10	143	...	1,13,656
Nellore	30,561	26,061	...	...	...	1,600	538	3,687	356	...	...	...	62,803
Cuddapah	20,384	19,182	...	...	...	3,055	775	3,507	892	...	...	...	47,795
Bellary	1,889	4,095	...	...	...	39,267	1,037	245	87	...	...	...	46,620
Kurnool	...	38,853	...	...	...	...	4	452	...	...	...	...	39,309
Chingleput	5,828	46,191	337	...	...	64,361	2,402	4	934	1,789	...	...	1,21,846
North Arcot	73,121	56,263	...	...	...	80	300	847	880	...	...	...	1,31,491
South Arcot	13,131	25,787	...	2,170	...	173	...	560	52	...	...	...	41,873
Tanjore	3,479	30,903	6,858	1,942	...	...	243	...	1,238	...	...	...	44,663
Trichinopoly	25,492	5,053	...	...	...	18,380	...	...	...	...	...	...	48,925
Madura	185	11,827	9,103	...	...	...	2,429	60	...	...	...	15	23.619
Tinnevelly	11,036	8,103	...	...	...	143	916	533	...	...	...	...	20,761
Coimbatore	14,426	16,169	...	...	...	3,15,994	1,402	5,477	1,187	1,702	...	2,795	3,59,152
Salem	803	11,892	...	...	...	5,972	1,868	59	23,334	...	...	...	43,928
Canara	...	17,501	...	278	...	170	214	...	455	16	54	...	18,718
Malabar	609	17,131	...	...	...	9,653	111	42	314	80	1,056	...	28,996
Madras. Civil Architect	...	...	...	...	...	1,203	...	15,716	26,522	886	...	...	44,327
Garrison Engineer	...	85	...	4,170	...	49,910	4,875	1,136	...	...	11,294	...	71,470
East Coast Canal	...	1,257	28,680	...	...	...	...	...	...	...	...	...	29,937
Hyderabad	...	...	...	...	...	3,60,570	...	...	...	...	...	...	3,60,570
Mysore	...	200	...	...	...	91,738	...	18	...	2,250	...	...	94,206
Jaulnah	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Rupees...	4,38,108	4,01,287	64,879	29,142	772	9,84,615	21,977	50,966	57,041	7,693	13,501	2,814	20,72,795

II. *Expenditure on Repairs during the year 1857-58.*

	Irrigation Works.	COMMUNICATIONS.				BUILDINGS.							Total.
		Roads and Bridges.	Navigable Canals.	Ports and Harbours.	Ferry Boats.	Military.	Revenue.	Public.	Judicial.	Ecclesiastical.	Marine.	Educational	
Ganjam	26,278	18,992	...	...	212	1,318	5,918	193	381	350	...	...	53,642
Vizagapatam	11,283	1,009	...	...	1,066	1,033	2,065	589	92	277	20	...	17,434
Godavery Division	3,05,077	1,555	10,672	615	834	1,251	859	261	1,474	...	...	...	3,22,598
Kistnah Division	1,23,807	19,244	120	...	...	1,220	379	196	658	2,517	100	...	1,48,241
Nellore	1,17,747	40,910	...	...	112	82	455	706	549	203	2	...	1,60,766
Cuddapah	35,422	24,067	...	...	...	509	1,174	544	50	...	...	...	61,766
Bellary	80,182	50,826	...	...	...	7,968	1,371	576	1,110	210	...	...	1,42,243
Kurnool	5,763	11,439	...	...	...	839	519	285	879	...	...	...	19,724
Chingleput	41,445	86,664	...	...	223	17,365	537	1,354	343	1,087	...	...	1,49,018
North Arcot	34,920	46,538	...	...	...	3,523	160	144	489	288	...	...	86,062
South Arcot	70,981	37,568	...	...	...	...	485	702	916	...	...	...	1,10,652
Tanjore	1,65,965	7,804	2,560	32	317	...	207	378	282	...	336	75	1,77,956
Trichinopoly	76,681	24,121	...	...	...	2,217	237	...	159	...	...	...	1,03,415
Madura	52,370	2,104	...	...	...	1,618	291	281	5	...	...	...	56,669
Tinnevelly	50,773	4,979	...	...	...	875	145	55	...	141	...	...	56,968
Coimbatore	29,366	38,644	...	...	...	819	483	1,827	230	18	...	..	71,417
Salem	42,128	20,338	...	...	...	...	944	529	317	...	...	...	64,256
Canara	...	40,204	...	...	...	1,898	4,014	1,759	418	71	...	...	48,394
Malabar	468	18,157	570	...	...	6,591	1,773	3,004	488	258	228	...	31,537
Madras. Civil Architect	...	8,469	...	...	...	8,982	...	16,522	12,991	698	...	214	47,876
Garrison Engineer	...	2,472	...	2,749	...	58,422	5,478	3,049	...	482	...	...	72,652
East Coast Canal	...	...	8,571	...	...	...	...	...	...	...	...	...	8,571
Hyderabad	...	...	...	...	...	812	...	...	...	...	...	...	812
Mysore	...	...	...	...	...	1,549	...	...	...	4	...	...	1,553
Jaulnah	...	...	...	...	...	5	...	...	...	3	...	...	8
Total Rupees...	12,70,6 56	5,06,104	22,493	3,396	2,764	1,18,926	27,494	32,954	21,861	6.607	686	289	20,14,230

14. Such general observations and Statements as are requisite having been thus submitted, I now have to report on the principal local operations carried on in each District, keeping carefully in view the recent special instructions of Government.*

* Para. 12 Extract Minutes of Consultation 830, 3rd May 1858.

Ganjam.

15. The entire Ganjam expenditure of Rupees 99,092 is broken into Rupees 45,450 for New Works, and Rupees 53,642 for Repairs. The former principally comprises Roads and Bridges, he following being the most prominent, namely:

	Expenditure during the year. Rs.
Berhampore and Russelcondah Road	5,064
Completing the Aska Bridge	2,725
Chicacole and Calingapatam Road	9,011
Nursimpetta and Calingapatam Road	4,871
Re-metalling Berhampore and Aska Road	4,684

16. The July restrictive orders arrested the further expenditure most injuriously, but unavoidably, on the above highly useful improvements, the outlay as above cited for the most part having taken place previously; no District is more highly susceptible of development than Ganjam, and the Rupees 26,278, spent on repairing irrigational constructions are believed to have effected a measure of benefit out of all proportion with the actual expense. Rupees 18,992 have been spent on repairing Roads, Rupees 5,918 on Revenue Buildings, and Rupees 1,318 on Military Building Repairs. Large annual repairs for many future years are a necessity for this Province.

Vizagapatam.

17. Ten works of importance have been carried on in Vizagapatam, the expenditure on New Works being only Rupees 18,111, and on Repairs Rupees 17,434, making a total of Rupees 35,545 for 1857-58. The Electric Telegraph line between Coonce and Chicacole on which Rupees 4,979 were expended, and some temporary Bridges on Trunk Road No. 6, between Soobbaram and Chicacole are the specialities of the year.

18. The Custom House at Bimlipatam and new Mess Room to the Barracks at Vizagapatam were completed out of the amount above stated. The Custom House at Vizagapatam commenced in the early part of the year, was arrested in July, after an expenditure of Rupees 1,700, which with proper activity might most easily have reached the limit of Rupees 5,610 necessary for the completion of the structure. The District Engineer loudly complains of the absence of good understanding between the Subordinates of the Revenue and Public Work Departments, and observes that progress is likely to be much impeded thereby. Lieutenant Vertue lastly, further reports, that prices of materials and labor and that rates of wages are greatly on the increase in Vizagapatam.

Godavery Division.

19. Owing to pecuniary restriction, attention has principally been directed to conservancy of works already constructed, and to increase of their efficiency. The distribution of water from the Godavery Project, has been more minutely carried out and with much success during the past year.

20. These improvements for several years in Rajahmundry have had their natural effect on the labor market of the District, for the great extension of cultivation throughout the Delta, and the increased facilities for transport have so reduced the number of labourers, that the Department no longer command the same supply it formerly did with ease, and notwithstanding that the departmental rate of wages has been raised fully 30 per cent. serious difficulty is still encountered, and a further rise of wages is to be anticipated, as the only condition of a full labor supply.

21. The season of 1857-58 has been rendered specially notable in Rajahmundry, by the unexpected catastrophe of a breach in the Muddoor branch of that vast work, to which the Delta of the Godavery owes its chief prosperity. The partial failure of the Dam which forms the key of the comprehensive project for a combined system of irrigation and navigation, hitherto without parallel in this or any other country, was calculated at first sight to undermine all that trust hitherto so confidently reposed in the permanence and absolute security of this gigantic work, and in the soundness of the constructive principles on which it has been built. But it is not to be expected that so large and remunerative a work can have an immunity from the risks besetting all human enterprize, and the celebrated Projector, Colonel Arthur Cotton, in his report on the accident, dated Madras, 19th January 1858, drawn up after his return from personally directing the operations of repair, succeeds in shewing very clearly at what cost of precautions, the safety of the Godavery Dam can be placed beyond all risk of danger. Moreover the breach was closed in a temporary manner within six weeks from the date of its occurrence; and the accident having providentially occurred at the time when the crops were either already ripe or nearly so, no loss has resulted, except of some Sugar Cane cultivation. The total cost of repairing the accident is estimated at 60,000 Rupees, or about 7 per cent. of the first cost of the work.

22. The Expenditure on New Works during the year has been as follows:

	Rs.
Irrigation Works	1,52,286
Communications, including Canals	48,358
Buildings	13,925
Total	2,14,569

23. The principal Works are the following:

	Expenditure.
Towing path to the Nagaram Aqueduct	4,344
Eastern Delta Works	6,852
Widening the Samulcottah Channels	6,852
Central Delta Works	14,138
Irrigation and drainage Channels in Brecavole and Nagaram Talooks.	10,008
Samulcottah and Toonee Canal	12,633
Widening Palcole Channel	11,688
Samulcottah and Cocanada Canal	17,060
Nagaram Aqueduct and Channels	4,201
Coringa Harbour	7,983
Cocanada Harbour	5,996
Apparow Canal	6,741
Weyaroo Canal of Irrigation and Navigation	56,901

24. Under the head of Repairs, Rupees 3,22,598 have been laid out, chiefly on Irrigation Works; the most considerable item being, as may easily be supposed, the repair of the Godavery Annicut breach.

Kistnah Division.

25. The Public Works restrictive order of August last, has no where been found so very detrimental as in this Division. The whole Public Works were at that time progressing admirably and vigorously, the supply of materials and the internal economy of the Department being thoroughly organized, a considerable amount of labour (much of it skilled) had been collected, and there was every prospect of the great scheme of continued Irrigation and Navigation from the Kistnah being speedily and excellently worked out, when the cessation order arrived.

26. This sudden stoppage has been most injurious, many of the half finished works are reported to be rapidly deteriorating, so that when the Projects now abandoned are resumed, it will be found that much of the capital originally expended on them has been thrown away.

27. On the resumption in 1858 of one portion of the Masulipatam Canal as a Military communication, it was already most difficult to procure even unskilled labor, the skilled labor, drawn originally for the most part from such other Districts, and trained up under zealous Officers, had disappeared, whilst much of the Cooly labor of the Division had been hired by the Ryots themselves, and applied to the cultivation of the soil. The evil was aggravated by an increase of prices, especially in food and carriage, without an equivalent rise of wages, so that where, less than a year ago, labor was comparatively abundant and moderately priced, it was impossible within only six months afterwards to carry on one single Canal on an extensive scale.

28. With respect to the Irrigation of the District, the District Engineer reports that it has never, hitherto, been so extensive or so advantageous, either to the State or to the people.

29. In Masulipatam, at the commencement of the cultivating season, there was a drought, after that a heavy rain fall, and lastly, a couple of months without any rain whatever. In Guntoor the season was similar, but more severe, for there the most unusually heavy downpour, in September, breached almost every Tank in the Collectorate, and swept away miles of irrigating Channels, yet the wet crops raised under the Annicut in the two Collectorates were of more than average yield or value. In Guntoor, the damage caused by the floods was speedily made good, and the Kistnah water turned into the repaired Tanks and Canals in time to save the cultivation, which otherwise must inevitably have perished from the continuous dry weather succeeding the heavy rains.

30. The lines of communication through the Division have, owing on the one hand to the transport of Troops and Stores, necessitated by the Campaigns in Central India, and on the other, to the rise of prices and consequent desire of realizing the value of produce on hand, been in greater use in this, than in probably any other previous year. The Masulipatam and Hyderabad road in particular, has been thronged with Detachments of all arms of the Service, with a Siege Train, and with Military Stores passing into the interior, and with the return carriages bringing back inland produce.

31. Unfortunately the people themselves have suffered severely from the disordered state of other portions of the empire; a great call was made upon them for carriage, and on an insufficient voluntary quantity being supplied, the deficit was necessarily impressed.

32. From this cause many Ryots were afraid, or unwilling, to send their produce to market, and in some places sold it to speculators on the ground at a reduced price, preferring certain loss to the chance of the impressment of their carts and cattle.

33. Much oppression was exercised in this way in the collection of the required carriage; and it ended at last in whole villages taking their bandies to pieces and burying them, and driving their bullocks away into the hills.

34. The movement during the past year on the navigable Canals, could hardly be expected to shew an increase on former seasons, and until the lines are continued to some notable emporia as termini, this is not to be wondered at. At present, the 24 miles of first class navigation starting from each flank of the Annicut lead to nothing. On the completion of the Canal, however, to Masulipatam, there will, of necessity, be an extraordinary increase of traffic, for when prices are nearly 40 per cent. higher at Guntoor (under 50 miles in a straight line from Masulipatam) than at the latter place, individuals will realize great profits by the water conveyance of goods from one to the other town.

35. During the past year a temporary Coast line of Telegraph was erected by Officers of this Department from Ellore to Incole, a distance rather above 100 miles, the Kistnah being spanned by a ⅝th wire cable, 2,000 yards in length, suspended from hill to hill, forming a bold catenarian curve of perhaps greater single span than has ever been carried into effect, or attempted even, elsewhere.

36. The Expenditure on New Works amounts to Rupees 1,13,656, *viz.*

On Irrigation Works	„	82,166
Communications...............	„	17,326
Buildings........................	„	14,164

the principal items being as follows:

	Rs.
Road from Ibrampatam to the Nizam's Frontier..................................	6,504
Northern high level Channel from the Boodoomair to Denderloor...........	9,818
Channel from the Poolairoo near Weeyoor to the Canal basin at Masulipatam..	32,731
Widening and deepening the Toongaboodra Channel, and cutting a new Channel in continuation as far as Nizampatam	7,595
Western bank Channel from Vullabapooram to tide water.......................	8,430
Southern high level Channel from the Toongaboodra near the Kistnah Annicut to Irganawpada..	10,818

37. The Expenditure on Repairs amounts to Rupees 1,48,241, of which Rupees 1,23,807 are for Irrigation Works, relating chiefly to the extension and development of the system dependent on the Kistnah Annicut.

Nellore.

38. This Province was visited by a dreadful hurricane in November last, which did serious injury to the Public Works. The Pennair Annicut, Trunk Road No. 6, between Wajelly and Nellore, the Nellore, the Alloor, and the Survapully Tanks, stand signally conspicuous amongst a host of 300 smaller works, which have been injured or altogether destroyed. The Pennair Annicut breach was nearly 100 yards in length, besides that work being stripped of the greater part of the Apron along its whole length. The Tanks abovementioned have had their inner revetments, and in some cases, their supplying channels much injured, so that much more than a year's revenue will be required to restore them to their previous state.

39. Notwithstanding the restraint on the expenditure, the above disasters necessitated a large outlay on repairs, nearly 1,18,000 Rupees having been laid out on Irrigation Works alone.

40. The entire expenditure of the District amounts to Rupees 62,803 on New Works, and Rupees 1,60,766 on repairs. The principal works under the former class are Trunk Roads Nos. 6 and 7, and other lines of communication, but the works not being of a special character do not call for further notice.

Cuddapah.

41. The storm which raged in Nellore also devastated the eastern Talooks of this Province, *viz.*, Doopaud, Cumbum, Budwail, Sidhout, and Chitwail, but the rain which fell was most singularly capricious and partial. To the south of the Goolchernoo Ghaut, not a drop of water fell, while in the adjoining Talooks, within the distance of a mile, the storm was so severe as to breach and otherwise seriously injure almost every work of Irrigation; and in the Sidhout Talook alone, which suffered the most, there were as many as 60 Tanks breached by this calamitous visitation.

42. In the utter stagnation of New Works of improvement, the chief efforts of the Public Works Department have been directed to the speedy and efficient repair of the above damages. Rupees 35,422 have been thus laid out on Irrigation works, and Rupees 24,067 on the Cuddapah Communications, proverbially the worst in the whole of the Madras Presidency. The expenditure on New Works amounts to Rupees 47,795, of which Rupees 20,384 are for works of Irrigation, and Rupees 19,182 for Road repairs. The most important of the New Works executed are the following:

	Rs.
Six Bridges and 14 Tunnel between Culloor and Kulcudda, on Trunk Road No. 11.........	6,950
Earthwork and metalling to a portion of the high Road from Cuddapah to Madras............	8,857
New Head and Sluice to the Yennamalah Chintah Channel..	2,314
Improvements to Budwail Tank..	3,484

but progress was arrested by the orders of last July.

Bellary.

43. In the Bellary District no important work of any kind has been in progress except the new European Regimental Hospital at Bellary; Rupees 16,980 have been expended on the foundations and basement of the building, and a few door frames have been set up for the walls above; but want of timber has prevented further progress, the required supply being entirely dependent on the floods of the Toombuddra, for the timber depôt is at Wallabapoor, on that river, 44 miles streamward of Bellary. The Bellary Hospital was authorized for execution in list No. 1 of 1856-57, but countermanded by Extract Minutes Consultation of 25th November 1856, No. 2203. Other repairs duly executed, call for no particular notice.

Extract Minutes Consultation, 27th July 1857, No. 1441.

44. Roads formerly made have been kept in order, but want of European superintendence caused by the unavoidably extensive reductions and retrenchments has been grievously felt. Originally made of mere gravel, the Roads require more constant attention and skill than if originally of permanent construction.

45. The Toombuddra Irrigation Channels have been cleared out thoroughly, and an increased area of 500 acres has been gained, but it is hoped that a still larger increase will be made in the current year; several large Tanks have also been repaired, and their capacity greatly increased; so that if not for the wanton and unchecked waste by the Ryots, who appropriate 3 inches of water constantly when one would amply suffice, the Rice cultivation of Bellary might be greatly extended, and thus secure a large increase of Revenue.

46. The total Expenditure on New Works is Rupees 46,620, and on Repairs Rupees 1,42,243; but the component items call for no particular remark. The inland position of this District renders its internal communications a *sine qua non* to the development of agricultural or commercial prosperity, and when good Roads are established, it may be reasonably hoped that its great Cotton producing capabilities, together with numerous other articles of export, will ensure its becoming one of the most important Districts in the whole Madras Presidency.

Kurnool.

47. The Kurnool expenditure during the year amounts to Rupees 39,309 on New Works, entirely Roads and Bridges. On the road from Kurnool to Kodamoor, Rupees 4,304, and Rupees 5,888 on the line from that town to the Nundy Canama Ghaut, have been spent. The partially laid out new trace for the Munterul Canama has cost Rupees 4,750, but the operations were insufficient to place the new line at the disposal of the Lumbardy bullocks, whose masters were most eager to profit by a great improvement, which a slight additional expenditure would have secured to this enterprizing class of traders.

48. Although there was no expenditure on new Irrigation works, the repairs of several have been attended to, particularly in the Dhone Talook, under the able superintendence of Sub-Overseer Kelly. The expenditure amounted to Rupees 8,763. Attention has also been paid to the Roads and Communications, on which the expenditure reached Rupees 11,439. The work to buildings has been of too petty a character to require separate notice.

49. But even in this brief report it must not be omitted that the Public Works in Kurnool are most unsatisfactory, and very much indeed ought to be done for their improvement. There is not one single road completed and bridged, the irrigation from Tanks and Annicuts is excessively small, although (a Delta excepted) it is hardly possible to find a District with better opportunities for storing large bodies of water at a cost so proportionately small, insuring to Government a return of more than 25 per cent. on the original outlay. In fact, in many parts of Kurnool now overgrown with thick jungle, there are remains of extensive Irrigation works in decay, owing to the negligence and apathy of the Native rulers, who governed the Province before it came into the possession of the British in 1842. These works may, for the most part, be restored merely by filling up a few breaches, and constructing Sluices or Calingulahs, or other petty works necessary to replace the reservoirs in an efficient condition.

50. His Excellency the Commander-in-Chief has recently reported specially on the neglected state of this Province, as in the Military occupation of the English Government, movements of Troops being impracticable; Lieutenant General Sir Patrick Grant's Despatch is dated the 15th March 1858, and a copy was forwarded to the Commandant of Engineers (who has also drawn up a very vigorous Minute on the same subject) on the 30th April, in the Military Department. But although it is now June, and the interval since the end of April is that best suited throughout the whole year for executive operations; no communication whatever appears as yet, by some unaccountable omission, to have been made to the Department Public Works, although important instructions have to be conveyed to the District Engineer of Kurnool, which in part, if not in whole, might even thus have been fulfilled.

Chingleput.

51. Owing to a necessity for the vigorous prosecution of Military buildings in the Cantonment of Saint Thomas' Mount, ultimately to be partially supplied with defensive works, a large portion of the executive operations refers to Military works, on which, including repairs, a sum of Rupees 81,726 has been expended. The principal items are as follows:

	Rs.
Constructing Roads and Magazines on Saint Thomas' Mount..........	9,630
Double row of Gunsheds, &c., adjoining the Foot Artillery Barracks	17,397
Constructing a terraced Gun-shed and Harness room adjoining the Main Guard..	12,154
Married new quarters (not yet completed)..	17,682
Wall and Guard of a picketing ground for the Horses of the Royal Artillery	4,684

52. Most of the foregoing, begun in October last, have been carried on with great rapidity, so as to be completed as quickly as possible, a circumstance tending, however, to enhance their cost.

53. The heavy rains of October last caused great damage to the minor Irrigation works, of which 300 were breached during the Monsoon. The Corattoor Annicut across the Cooum, and

the Casaveram Annicut across the Corteliar, at the head of the Bungaroo Channel were also breached. Three Southern arches of the Red Hill Tank Bridge on Trunk Road No. 6, fell down, in consequence of the destruction of the rear retaining wall, and also of the foundation on the upper side. Such were the most important works injured, but repairs are being carried on rapidly, and will be speedily completed. The total expenditure on Irrigation Works during the year was Rupees 47,273; of which Rupees 5,828 were on New Works, and Rupees 41,445 were on repairs.

North Arcot.

	Rs.
54. The North Arcot expenditure on New Works amounts to	1,31,491; *viz.*
On Irrigation Works...	73,121
Communications..	56,263
Buildings..	2,027

Of the first item, however, Rupees 64,850 were laid out on the Palar Annicut project alone, the head sluices, and other subsidiary parts of which were in progress during the year; the rest of the expenditure has been appropriated to numerous small works, of which the following may be considered the most important.

	Rs.
Extension of the Cheyaur Annicut project..............................	1,711
A new Sluice to the Chekand Hissa tank................................	1,082
Poiney Annicut project...	972

55. Under communications, the most important expenditure, Rupees 28,757, is for the Bridge across the river Palar on the road from Vellore to Chittoor, of which 14 arches still remain to be completed; on the road from Vellore to Arnee, Rupees 8,006 were expended; and a great feeding line to the Railway, and much more so than from Bannaverum to Sholingur, which has been exempted from stoppage; on that from Goriattum to Pollicondah, Rupees 3,643; but the further progress of these and other roads was for some time arrested by the restrictive order of July last; a bridge of 11 arches of 30 feet span, across the Agarum river on Trunk Road No. 1 was, however, completed by Captain Barber, Executive Engineer, and opened for Traffic in September 1857.

56. The expenditure on buildings does not require special notice.

57. The outlay on repairs amounts to Rupees 86,062; Rupees 34,920 being for Irrigation Works, Rupees 46,538 for roads and bridges, and Rupees 4,604 for buildings. The greater part of that on communications belongs to Trunk Roads Nos. 1 and 10, while the remainder is distributed over numerous petty items not requiring special comment.

South Arcot.

58. At the beginning of the year 1857/58 preparations were made for commencing several large works in South Arcot, but their progress were stopped under the orders of July last. Some few exceptions, however, were made, when it was necessary to advance the works to a certain stage of completion for the sake of security; such were,

Bridges across the Poneaur on the Southern coast road, finished in October 1857..	8,081 Rs.
Four bridges on the road from Tindevanum to Trinnamullay.........................	3,600 ,,
Two bridges on the road from Oolundoorpett to Calicoimby (unfinished)...........	1,644 ,,
Bridges on the road from Cuddalore to Salem frontier..................................	1,993 ,,

59. No work of any importance has been executed in the Irrigation Department, except the improvement of the Vellaur Annicut Irrigation ducts, for the Oriagostee and other villages, and which were partially completed in November 1857, at an aggregate expenditure of Rupees 10,032. The Cuddalore Harbour was improved by cutting a new and more direct boat channel through a shoal, at an outlay of Rupees 2,170, thus making the aggregate expenditure on account of the improvement Rupees 7,351.

60. The entire expenditure of the District on New Works was Rupees 41,873, of which Rupees 13,131 belonged to Irrigation Works, Rupees 27,957 to communications, and 785 Rupees to buildings, the last item comprising no work requiring notice.

61. Of repairs, 70,981 Rupees were spent on Irrigation Works, the principal outlay being in the Villapooram and Southern Talooks, which were visited by a severe gale in November last; 416 is the total number of works repaired, the Perroomal Tank being the most important, and next the Goverapet channel embankment and aqueduct. Repairs to roads and buildings, respectively Rupees 37,568, and Rupees 2,113, were altogether of an ordinary character.

Tanjore.

62. After the postponement and delay caused by the summary discharge of an entire class, *viz.*, the lower Subordinates (342 in number) at the very moment of Tanjore being subjected to a transfer in conformity with all other parts of the Presidency, it ultimately was deemed practicable to undertake the sole Executive charge of the District, even with a professional establishment and staff, admittedly entirely inadequate to the current duties of the Public Works Department. If even it were not now profitless to further debate a vexed question, when applied to at once the most important and also apparently (but perhaps not really) the most arduous of our Provinces, the present is neither the place nor time for discussing the separation of Public Works from the Revenue and Police Officers of Government, and it therefore is enough to report that the actual transfer, beset by numerous minor troubles, embarrassments, and references, was not practically completed, even ostensibly, until the 1st of January 1858. Scarcely a single favorable prediction of the successful working of the new system seems to have been placed on record; the ablest and most experienced Officers concurring in the opinion that the Meerassy system, which is to be found in its fullest development in Tanjore, would prove an insuperable obstacle to the establishment of free labor and prompt payment, the hitherto supply of workmen by the Meerassidars themselves having been most exclusive and invariable. Even at this early period, however, there have been observation and experience enough to warrant the encouraging conclusion that the native character is no less clear-sighted in the detection of its own interest in Tanjore, than in other places. The confidently foretold Meerassidar opposition has nowhere been apparent; the great landholders have been found fully accessible to the reasoning which shews, that repairs and improvements previously intended for the security or reform of their own works, and therefore for their own benefit, if executed at all, had better be done so with all available professional skill, system, and science, than desultorily and perfunctorily, and that the practise of a full day's wages for a full day's labour, payments being always prompt and punctual, is preferable to that of advances, mixed up with "tuccaree," and "kist," and other revenue accounts. In practise, therefore, the Meerassidars have proved the auxiliaries, and not the opponents of the new Public Works system; and if the same measure of assistance and the like friendly spirit had been shewn by the native fiscal Officers of Government as have been evinced by the large landholders of the Province, Tanjore might even already have been cited as a happy exemplification of the beneficial results of the Reform. But amidst other minor hindrances, not foreseen, and certainly never expected, may be cited the obstacle caused by the system of impressing coolies about the time of harvest, in order to their employment on lands under "Amanny," or the direct management of Government Officers. The Peons engaged on this duty, of course find it easy to coerce coolies from those engaged on Public Works, where they, as it were, are already collected to their hands, and they do not hesitate to remove them, notwithstanding the remonstrances of the Officers of the Public Works, whose complaints are even reported to have been sometimes disregarded by the very Collector himself. It is to be hoped, however, that such opposition, which has the effect of crippling one branch of the Service for the mere convenience rather than benefit of another, will gradually give way to a more enlightened management, which shall be cognizant of the untellable mischief of holding up to general observation two Departments of the public service, of the same Government, as acting in apparent mutual antagonism, instead of uniformly in harmonious co-operation. The difficulties, which it must not be denied, are practically great, are yet of a character that is kept as much out of sight of superior Officers as possible, and they resolve themselves rather into a petty constant warfare (if any warfare can be petty) of Subordinates, the one jealous for privileges supposed to be newly conferred, the other reluctant to forego the exercise of functions, hitherto a portion of their own current duties, than of disagreement between the higher Officers, and thus, in a hundred different ways not of easy definition, and through many various channels, small oppositions are set afoot, irritation is soon awakened, exasperation quickly ensues, and estrangement, or even hostility, are found to be rapidly developed amongst the lower of the most subordinate of all the many employées, both in the fiscal and the Public Works branches of the Service, with chance of action and re-action on higher quarters. It seems essential, then, that this evil, no imaginary one, should be taken up promptly, in view to peremptory check (whilst the spirit, still chiefly nascent, of alienation is in its infancy) by the Collector himself. It is suggested, with all deference, that a public Notification might be drawn up under his name and authority, for general circulation, with the greatest advantage; and which detailing at once, how and in what manner, the Government servants of each Department, come in contact with each other, and how far each should be expected to bear and forbear in order to ensure good will, harmony, and efficiency should be fixed up in all the Choultries, Moosaferkhanas, and other public places of general resort, throughout the whole District of Tanjore, of course not omitting a statement of the penalties to be inflicted on breach of instructions by the servants of either and both Departments.

63. Owing to restriction of expenditure, no large New Works have been prosecuted in the Irrigation department, for only Rupees 3,479 have been so expended; but upon roads and bridges an outlay of Rupees 30,903 comprises the following principal items :—

	Rs.
Bridge across the Coleroon at Anakarun Chuttrum, open to the public, but parapet walls not yet finished	5,331
Bridge across the Lower Annicut on the Coleroon	13,434
Canal from Trimulvassel to the Coleroon	6,858
Bridge across the Nasoomar, the road between Manargoody and Adampatam	1,983
Pootaur bridge and Tunnels over channels on the road from Minnellum to Cadavassel	1,736

64. Considerable damage by the October's Monsoon to the Irrigation Works, particularly in the Trivady Talook, called forth a very large expenditure. Repairs to the Upper Annicut, to the Vennaur regulating Dam, and to the Cutchamungalum Annicut, and important clearances to the Pillay Voikal, have all been satisfactorily accomplished. Numerous other works have also been repaired, at a cost, altogether, of Rupees 1,65,965. On roads and canals, the amount of repairs was Rupees 10,713; and on buildings, Rupees 1,278, making an aggregate of Rupees 1,77,956 for the season 1857-58.

Trichinopoly.

65. It has been found absolutely necessary in Trichinopoly to proceed with certain Irrigation Works of improvement, the further stoppage of which would have entailed a considerable loss of that revenue to Government, which represents scarcely half the loss at the same time inflicted by the like cause on the landholders. Nor was it until loss had actually been sustained that the orders were relaxed in favor of the extension of the Laulgoody channel to the Oodurpollum Talook, and also of the construction of an additional Apron to the Nunthayaur Annicut, needing to completion an expenditure of only Rupees 2,621. On the Coleroon main channel in the Oodarpolliem Talook, an expenditure of 11,000 Rupees placed the work in efficiency, but completion was prohibited. On improvement of the Laulgoody channel, and on the reconstruction of the Nunthayaur Annicut, Rupees 6,984 and Rupees 4,203 were respectively expended. The entire outlay amounted to Rupees 25,492 on New Works of improvement.

66. Rupees 3,470 have been laid out in repairing the Dindigul road, and Rupees 1,044 in rectifying the bed of the river Oopaur, near the new bridge on Trunk Road No. 8, from Madras to Trichinopoly; the aggregate road expenditure throughout the year being only Rupees 5,053.

67. A more than usually liberal expenditure has been made in the Military Department in the District of Trichinopoly, which forms the Head Quarters of the Southern Division of the Madras Army. The total outlay has amounted to Rupees 17,413; chiefly in the reform, improvement, and re-roofing of the old Barracks, and in constructing temporary Buildings for the European Regiment during the erection of permanent quarters. The progress has by no means been so satisfactory as was to have been expected under the urgent character of the circumstances, and under the management of so able, and generally so energetic an Executive Officer, as Lieutenant Ryves, and His Excellency the Commander-in-Chief has censured the Executive Department for their shortcomings.

68. The rains of November and December 1857, did such considerable damage to the Works of Irrigation, that an outlay of Rupees 76,681 was required for their repair, unfortunately the unusually copious rains of November 1857 were, moreover, succeeded by an absolute drought of 5½ months, to the serious injury of all common Tank fed cultivation dependant on the Talook river channels. Notwithstanding the seeming scantiness of supply, the parent streams have fully matured their crops, the value, or selling price of which, is all the greater from the suffering created by so long a total absence of rain.

69. The outlay on the repair of roads amounted to Rupees 24,121, and that on buildings to Rupees 2,613, no item worthy of special mention being included therein.

70. The District Engineer complains of the prevailing system of impressing carts on occasions of movements of the Military. The same results as detailed already in Masulipatam failing not to ensue. The Government, in Extract Minutes Consultation of the 20th May 1857, extended such protection to Public Works Officers as the nature of the case admitted, and when the urgency is bonâ fide so great as to override the contracts or other engagements already complete, it only remains to relieve the impressed parties from all penalty, &c., &c., for non-supply.

Madura.

71. The Madura operations have been very limited, the entire expenditure on New Works being:—

	Rs.
Irrigation	185
Communication	20,930
Buildings	2,504
Total...	23,719

72. The bridge over the river Ambravutty, on the road from Dindigul to Paulghaut, on which Rupees 5,032 have been expended; that across the Shunmooganuddy, of which only a pier and abutment were built, at a cost of Rupees 1,413; and the roads between Sattungoody and Oorlumputy, and between Samiaranelloor and Dindigul, on which Rupees 1,574 and Rupees 2,141 were respectively laid out, are the only works deserving mention.

73. The highly important Paumben Channel, between Ceylon and Continent of India, in the Gulph of Manaar, has been further improved by the removal of 7,120 cubic feet of stone, and 9,285 cubic feet of sand, at a total expenditure of Rupees 9,104; and this great Channel of navigation, with its rapidly increasing traffic tonnage, is slowly, but steadily advancing towards the attainment of the general depth of 13 feet shewn to be practicable, and strongly recommended by Colonel A. Cotton in 1854, at a probable expense of Rupees 3,39,300.

Vide Letter to Government, No. 10, dated 16th January 1854.

74. Under head "Buildings," the Talook Cutcherries at Meyloor and Theroomengalum, are reported all but completed.

75. The "Repairs" amount to Rupees 56,669, of which Rupees 52,370 are for Irrigation Works, Rupees 24,121 for communications, and Rupees 2,613 for buildings; but none are worthy of special remark. It is, however, to be remarked that, influenced chiefly by the scarcity and high prices resulting from the long drought described in para. 69, which extended to Dindigul and Madura, the Government were pleased to lift the interdict from the Estimates Nos. 320, 322, and 323 in No. 2 Budget List for 1857-58, for repairing and improving a portion of the Road No. 18, between Butlagoonda and its junction with Road No. 15, at Pullaputty, and Road No. 1, between Trichinopoly and Dindigul, as well as improving Road No. 15, between Samia, Nellore and Dindigul, amounting respectively to Rupees 7,884—6,800 and 14,510. It is remarkable, however, that notwithstanding the scarcity with some of the poorer classes in both Dindigul and Madura, is but little short of starvation, and although prices are liberal for all classes, especially women and children, with prompt payment and the most considerate treatment, yet the general aversion to road work by all but Wudders is little short of unconquerable. Finally, although it involves a slight anachronism, as to date, it must be reported that no care or attention whatever having been paid by Government until the last few years, and when too late in this particular instance, to the dilapidation of Trimul Naick's palace at Madura, that most beautiful specimen of highly ornae Indian Palatial architecture has fallen to so great an extent, as to have for ever destroyed its beauty, except as a relic and a ruin.

Extract Minutes Consultation No. 372, dated 3d March 1858.

Tinnevelly.

76. The Public Work Officers in Tinnevelly, although having to contend against the formidable opposition of the Meerassidars, who enjoyed great immunities under the old executive system, had yet had very much to encourage them at first whilst supported by a full professional

subordinate staff with a compliment of Executive Engineers for each of the several (5) Ranges into which the District has been subdivided: for having a liberal sanction in Lists 2 and 3 of 1857-58, the District Engineer was, by degrees, overcoming all opposition, the prompt and punctual payment of the Pullars overbearing the dearth of labour created by the Meerassidars. When, however, the retrenchment alike of the numerical strength of the new Executive Establishments and of the Estimates available for expenditure was enforced by the restrictive orders of the 17th July last, which at once incapacitated the District Engineer from the prompt measurement and payment of work on which he had alone to rely for success, the Meerassidars were induced to withhold their already partially conceded assistance from the Officers of the Department, who, consequently, found it most difficult to obtain any labourers at all for their Public Works. The inferior class of the population being in a state of actual, if not nominal, servitude to the landholders, and being in a great measure directly supported by them, the opposition of the Meerassidars has hitherto prevailed, especially as the inferior Revenue servants are believed to be acting in collusion, more especially in giving currency to the rumour now very prevalent throughout the Tinnevelly District, of the old system being already on the eve of re-introduction, and needing only some executive failure, from whatever cause, to be reverted to forthwith.

77. It is believed, nevertheless, that, under a continued system of regular and prompt payment, the present opposition, whether from Meerassidars or from Talook servants, or both, will gradually give way. It is also hoped that this new system, so different from and so much more liberal than any which the Tinnevelly Pullars can hitherto have seen, will tend to free this depressed people from the state of thraldom in which they are at present held by their selfish masters.

78. The expenditure of the District, in consequence of these and other difficulties, obstacles, and of the restrictive general orders, has only reached Rupees 20,761 on New Works, and Rupees 56,968 on Repairs, as follows:—

New Works.

Irrigation	11,036
Roads and Bridges	8,103
Buildings	1,622
Total	20,761

Repairs.

Irrigation	50,773
Roads and Bridges	4,979
Buildings	1,216
Total	56,968

No single work deserving special mention.

Coimbatore.

79. The Coimbatore expenditure on New Works has been as follows:—

Irrigation	14,426
Communication	16,169
Buildings	3,28,557
Total	3,59,152

80. The repair, improvement, and extension of the Callingaroyen channel, with new head, has cost Rupees 13,084, and is the most important irrigation operation performed in the District. The Tadapully channel, also, from the right bank of the river Bowani, has likewise had an expenditure of 1,550 Rupees, whilst all other works are not of moment.

81. The following communication repairs are to be specified, *viz.*:—

Bridge at Umbravutty	3,622
Bridge at Marchenaikenpolliem	4,476
Tanks and wells on the Hassanoor Ghaut	421

82. The largest expenditure is in the Military Department, and may be given at Rupees 3,17,000, in prosecution of the noble accommodation for a full European Regiment at the hill station and sanatarium of Jackatalla on the Neilgherries, thus making already, with previous outlay, an aggregate expenditure of Rupees 9,59,411 out of the General Estimate of 15,71,500 allotted for the whole project of the buildings required in the Jackatalla Cantonment.

83. A very marked increased rate of progression cannot be denied to the operations of 1857-58, but with every exertion possible, the locality itself is said to interpose obstacles which can only be partially overcome; and it is more than questionable to my mind whether, under the present executive arrangements, further acceleration is practicable. Assuming, then, the maximum progress to be represented by the outlay of the last season, when no appeal had been omitted likely to work upon the zeal and efforts of the energetic Executive Engineer, Captain Campbell, it is not to be expected that the entire project will be fully worked out before the beginning of 1861, when a period of little, if at all, less than 12 years will have been consumed in the construction of permanent quarters for a single European Regiment of Foot.

84. If to the above aggregate of Rupees 15,71,500, be added the cost of the punishment shed, Rupees 3,270, the total will not materially differ from the aggregate Estimates of the new buildings also for a full European Regiment at Trimulgherry near Secunderabad, a project that has a total sanction of nearly Rupees 15,84,888, yet the Trimulgherry works were not commenced until 1855, and will without doubt be completed in all 1859, or commencing at least 5 years later, and having a much larger cubical content of brick masonry, (the Trimulgherry quarters are even on ampler scale than the noble buildings at Jackatalla) will be finished fully two years earlier, and it is certainly a very startling assertion that an additional period of no less than seven years should be required for the expenditure of the very same sum at Jackatalla as at Secunderabad in the Deccan.

85. Among other 1857-58 progress may be mentioned, the Civil Dispensary (Rupees 1,354) and Travellers' Bungalow (Rupees 1,677) at Coonoor. A Conservatory, too, at Ootacamund, has cost Rupees 1,498, and a School House at Coimbatore Rupees 2,595.

86. Repairs amount to Rupees 71,417, comprising Rupees 29,366, on irrigation works, Rupees 38,644 on communications, and Rupees 3,407 on buildings, none calling for special remark.

Salem.

87. The drought described as vexing Trichinopoly, Madura and Dindigul, extended to Salem, and deprived many of its irrigation tanks of their usual supply. The partial loss of revenue, from withered rice crops, is a smaller evil than the sacrifice of the seed, labour, and capital of the landholder who trusted to the bounties of Heaven not being so long withheld. Much distress was relieved by employment on the Railway, and on the few works permitted to progress in the District.

88. The entire expenditure on works of irrigation was only 803 Rupees. On communications, Rupees 11,892. About 10 miles of the Yercaud cart-road to the Mullapooram Railway Station have been completed for Rupees 9,146, but as there is not a single bridge built, the road may easily remain incomplete when the Rail is opened. Three miles, too, of the line from Darampoory to Morapoor have cost Rupees 1,539; but it would seem highly desirable to at once give partial effect to all projects for feeding the approaching line of Rail, such, for instance, are the two estimates, 417 and 418 respectively, Rupees 15,280 and 21,600, for connecting Yercaud or the Shevaroy Hills with Adaumcottah Station, *vid* Mullapooram; and not less necessary is No. 419 of Rupees 5,500, to connect Morapore with the Dharampoory Station. Also No. 451, Rupees 7,500, to place the important trading town and entrepot of Vaniambaudy in connection with its own station on the Rail: for unless the interdict be removed from these feeders immediately, there will be an even greater defect of cement between the two branches of the public service, *viz.*, the Railway and Public Works Department, than has unhappily been lately displayed at Goriattum. Projects once placed in official abeyance are so easily overlooked chronically, and disturbance is so often recurring, that hence even the present little fitting occasion has been taken to solicit the authority of Government for immediate action in Salem, whilst further suggesting also that either directly, or through the Chief Secretary, the Consulting Engineer may now make known to the Central Office, Public Works, his intended Railway Station both in Coimbatore and Malabar; for such knowledge, if even furnished within the week, would be any thing but premature. Finally, a small sum of 554 Rupees has been spent on the road between Nancul and Senkerry Droog.

89. The new Central Jail at Salem, which has also been steadily and satisfactorily carried forward under Lieutenant Gahagan, at an expenditure of Rupees 23,314, the foundations and walls above of four of the blocks being almost completed, and those of the 5th and 6th being under rapid progress. New sick stables, at a cost of 8,151 Rupees, have also been built at the Oosoor Remount Depôt; whilst, finally, the District Engineer's Office and Store-sheds, &c., have also cost 1,715 Rupees during 1857-58.

90. Repairs have been as follows, *viz.*

Irrigation Works	42,128
Communications	20,338
Buildings	1,790
Total	64,256

Canara.

91. Upon the important communications of Canara, only Rupees 17,501 have been spent, being confined almost entirely to the Yellapoor, Sircy, and Hallandy road circuit.

92. Rupees 939, have been laid out on seven or eight Buildings, of which Rupees 228 on the new Jail at Honore, is the largest item.

93. Repairs, on account of the District Engineer's miserable misinterpretation of the restrictive orders of July 1857, have also been most inadequate. On the Trunk Road No. 2, Rupees 5,623 were, however, spent in alleged improvements, and on the Dharwar and Coomptah road, the energetic Lieutenant Drever spent Rupees 25,326; but notwithstanding so great an outlay, this exceedingly important line of communication is understood to be still in a disgracefully bad condition.

94. The aggregate maintenance and repair of communications, has cost Rupees 40,204, and of buildings, Rupees 8,190: the entire expenditure of the year, under all heads, being Rupees 67,112, under a District Engineer, whose health was latterly so shattered by the incredible exertions, and solar exposure of exploring and levelling the upper Godavery during the hot season of 1855, that the very functions of the brain and mental equipoise were temporarily deranged for some portions of most days latterly; and it is alike to be regretted and wondered at, that the presiding local authority did not dispossess him forcibly, if necessary, of his Office, on his malady and consquent incapacity so plainly manifesting themselves. The late District Engineer has been since sent to England on Medical Certificate.

Malabar.

95. The only irrigation work in this District, is the Dam at Chetwye, upon which a final sum of Rupees 384 has been laid out. The project itself has since been in abeyance, whilst undergoing much and severe scrutiny that should have preceded actual and costly operations under Major Selby instead of following them.

96. The deep and rapid river at Irrity, intersecting a highly important Military communication, its projected timber truss bridge has been exempted from the operation of the prevailing restriction, and Rupees 8,266 have been laid out on its partial prosecution. The abutments and three piers have been built, and the wood and iron work of one of the bays has been set up, but the early completion of the work, with so premature a monsoon, is no longer to be hoped for. Thirteen miles of road from Calicut to Paulghaut have been completed with tunnels, and twenty-nine more nearly finished with earth work only, without masonry. The expenditure during the year being Rupees 3,357. Three miles of Ghaut have been metalled on Trunk Road No. 4, at an outlay of Rupees 4,740. Communications in Malabar have cost Rupees 18,157 in 1857-58.

97. The recent alteration in the site of the buildings at Mulliapooram for the Malabar Police Corps, has led to more than common expenditure in the Military Department. On new Buildings the total outlay is Rupees 11,256, comprising in the new Cantonment at Malliapooram,

a Hospital, Conjee House, Powder Magazine, Pony lines and Tank (for the mountain train Ponies) a place of Arms almost completed, and an Elephant shed under construction.

98. At Cannanore the well situated Fort has been satisfactorily repaired, and the station, which is the Head Quarters of Malabar and Canara, having been minutely examined by His Excellency the Commander-in-Chief, it is to be expected that ere long orders will reach the Department Public Works to carry out the views of improvement so earnestly enforced in His Excellency's Report of the 15th March last.

99. The Barracks at Calicut have been greatly improved by the substitution of planked flooring, and, further, have been otherwise put into much better order. The Artillery Barracks, the Magazine, and the Commissariat Cutwall's Choultry have also been thoroughly repaired, and after a delay very far from creditable to the Department Public Works, the various Military Buildings at Manantoddy in Wynaad have been extensively and satisfactorily repaired. Thus, altogether, Rupees 13,380 have been expended upon Repairs of Buildings, and, adding the Roads, (see para. 96) Rupees 18,157, the aggregate in 1857-58 is seen to have reached Rupees 31,537.

Madras.

100. The entire expenditure on Public Works at the Presidency of Madras [excluding the Municipality, for whether required by the Government or otherwise, the Central Office has not received any Reports or Accounts] during 1857-58, has reached the goodly amount of Rupees 2,36,325, notwithstanding the prevailing maintenance of the general interdict.

101. The altered departmental organization which had been ordered in the early part of 1857 so as to conform to the executive arrangements of the two sister Presidencies, has only taken full practical effect from the commencement of the last official year.

102. From the 1st of May 1857 then was abolished or superceded the large Establishment and Office of works, hitherto conducted by one of the most experienced Officers in the Corps of Engineers, who, with the very inconvenient designation of Superintending Engineer at the Presidency (thus causing confusion with the Members of the Central Office) and with the help of a Commissioned Assistant, had the entire executive charge and control, not only of all Civil, Judicial, Marine, Revenue and Military Buildings (including the port of Black Town and Fort Saint George), but also of all the extensive Barracks and Military works in the Cantonments of the three out-stations, Palaveram, Poonamallee, and Saint Thomas' Mount.

103. The appointment of Superintending Engineer being done away with, was subdivided into the two Offices at present constituted, namely, that of the "Civil Architect at the Presidency," and that of "Garrison Engineer of Fort St. George," a nearly exactly equal allotment of the previous Establishment having been assigned to each, an arrangement which, however simple or obvious, was by no means so certain of practically proving suitable to the nature and extent of the several duties allotted, as happily seems satisfactorily demonstrated by the actual expense of a first years' trial.

104. In respect to separation of duties, an almost equally simple plan suggested itself; all Civil buildings and works of whatever kind (except for the accommodation of Troops) were confided to the Civil Architect, whose Office has opened in as centrical and convenient a station as Colonel Atkinson (the previous Superintending Engineer at the Presidency) could discover; and the Garrison Engineer retaining his former spacious premises inside the Fort, has primarily charge of the Fortress, under the Commandant of Engineers, communicating the orders of the Right Honorable the Commander of the Garrison through His Lordship's Town Major, and for the rest, as an Officer of the Public Works, has charge not only of the whole of the Buildings within the Fortress, whether Civil or not, but is also entrusted with all Barracks and other Military Buildings of whatsoever kind outside Fort Saint George, as at Vepery and Perambore, Gun Carriage Manufactory, &c.

105. Out of the aggregate Presidency expenditure (vide para. 100) Rupees 2,36,325, the Civil Architect has expended Rupees 92,203; of which there are for New Works Rupees 44,327, and for Repairs Rupees 47,876, being almost equal to each other; and the Garrison Engineer has spent Rupees 1,44,122, of which there are for New Works Rupees 71,470, and for Repairs Rupees 72,652, also exhibiting a similar correspondence in accounts.

106. In the Civil Architect's Department the following are the most important works either executed or in progress, namely:

	Rupees.
Alterations to the Penitentiary (nearly completed)................	13,709 0 0
Erecting 4 flanking defensive towers at its angles, under execution.	5,472 0 0
Inner external long verandah also to the wards of the Prisoners, under execution..	2,488 0 0
Additions and improvements in accommodation of Lithographic Press Office (completed)..	1,570 0 0
Improvements and additions to the General Police Office (completed)...	2,593 0 0
Granite paving for floor of Government Press Office (completed).	3,987 0 0
107. The most important works in the Garrison Engineer's Department are strengthening groins Nos. 14, 15, and 16................	1,318 0 0
Dwarf groin near the Custom House (half done)..................	1,826 0 0
Additions and alterations to the Presidency Sea Customs House (completed)..	4,825 0 0
Constructing 5 Groins to protect the Royapooram Boatmen's village (completed)...	2,708 0 0
Reform of Clive's Battery for 68 ℔ers and heavy Guns with Furnace for hot-shot, Store-rooms, loop-holes, &c., nearly completed...	3,755 0 0
Minie Bullet Manufactory, ⅝ completed..............................	24,847 0 0
Shower bath for the European Veteran Company..................	3,586 0 0
Flatforms round the washing rooms in the Gunpowder Manufactory..	2,702 0 0
Stone platforms on the landside of the Fort........................	2,701 0 0
Shed near the Laboratory..	3,427 0 0
Coal sheds near Boatmen's gate and Railway for conveyance of Coal (⅜ completed)...	11,248 0 0

108. It will thus be observed that, contrary to what was to have been expected, the Garrison Engineer's duties, as measured by cash outlay, is as 3 to 2 compared with the Civil Architect, and whose expenditure is less than two thirds of the minor Office. This is a circumstance with may be attributed, first, to the restriction being peculiar to Civil undertakings alone; and 2ndly, to the exceeding impetus which the Rebellion has communicated to the Store and Equipment Department of the Army, whereby expensive provision has necessarily had to be made for accommodating the machinery required by the Officers of Ordnance, Commissariat, &c.

109. It is perhaps more than probable, that in future a similar money inequality will be found the very reverse of that now under observation, and that, in point of fact, no changes or adjustments, thus far at least, seem to be required between the two new Offices.

East Coast Canal.

110. The expenditure of the Superintendent East Coast Canal in 1857-58, has reached a total of only Rupees 38,508, the East Coast Canal extension projects being in abeyance till more prosperous times of peace. The following are the principal items of outlay:

	Rupees.
Adyar and Palar Canal...	11,407
Improvement and repairs between Madras and Ameen Covil... ...	9,506
Revetment to east side of Town ditch between Cochrane's and Elephant bridges.	1,553
Experimental model Boats..	3,254

111. The above and other projects commenced upon early in the season were, however, like all others elsewhere, subsequently stopped, the model Boats required for stocking the virgin South Canal, forming the single solitary exception; so that adding Rupees 8,571 for amount of maintenance and repairs, an aggregate of Rupees 38,508 has to be written against the Madras East Coast Canal, a water communication which branching from the Presidency to the North

and South leads to nothing, operations having been stopped short of a well defined and promising terminus in each direction.

Mysore and Hyderabad.

112. The extensive series of Military buildings and ranges of Barracks under construction for the accommodation of Troops at Bangalore and at Trimulgherry near Secunderabad, are highly important works indeed, and they are, for 1857-58, represented respectively by Rupees 95,759 (Rupees 1,553 being for repairs) for the former, and by Rupees 3,60,570 [with only Rupees 812 for repairs] for the latter. It is in the Hyderabad Department Public Works alone that a review of the operations and transactions of the past year yields credit, satisfaction, or encouragement; for elsewhere in this Presidency the numerical strength of the Department and of its dependant Office Establishments has been reduced so far below, not simply its wants, but its *necessities*, that it may with perfect safety be affirmed that twice the amount saved to the Government by such retrenchments has been lost to the State by destruction of property that had been otherwise in safety.

I have, &c.,

(Signed) C. E. FABER, Colonel,
Chief Engineer.

(True Copy.)

(Signed) E. LAWFORD, Lieutenant Colonel,
Officiating Chief Engineer.

CENTRAL OFFICE OF P. W.
FORT SAINT GEORGE,
4th June 1858.

Comparative Statement of Toll Collections for the Official years 1856-57 and 1857-58.

CHARGE.	1856-57.				1857-58.				Increase.				REMARKS.
	Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		
			Rs.	A.			Rs.	A.			Rs.	A.	
Miscellaneous Produce........	6,847	61,719	15,429	12	6,909	75,058	18,764	8	62	13,339	3,334	12	
Salt........................	2,440	43,748½	10,937	2	2,415	54,585	13,646	4	25	10,836½	2,709	2	
Total............	9,287	1,05,467½	26,366	14	9,324	1,29,643	32,410	12	37	24,175½	6,043	14	

E. C. CANAL SUPERINTENDENT'S OFFICE,
CAMP, MADRAS, *28th May* 1858.

(Signed) F. J. MOBERLY, Lieut.,
Superintendent of the E. C. Canal.

(True Copy.)

(Signed) E. LAWFORD,
Officiating Chief Engineer.

TABLE B.

Comparative Statement shewing the number of Boats, Tonnage, and the amount of Toll collected on each sort of Goods which arrived at the Basin by Cochrane's Canal during the official years 1856-57 and 1857-58.

NAMES OF ARTICLES CARRIED.	1856-57.				1857-58.				Increase.				Decrease.				REMARKS.
	Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		
Bark (auvarum)	2	2	0	8	2	21	5	4	0	19	4	12	0	0	0	0	
Do. (valium)	4	33½	8	6	13	83	20	12	9	49½	12	6	0	0	0	0	
Bangles	1	5¼	1	5	1	13	3	4	0	7¾	1	15	0	0	0	0	
Do. stones	0	0	0	0	1	7	1	12	1	7	1	12	0	0	0	0	
Bricks	0	0	0	0	1	1	0	4	1	1	0	4	0	0	0	0	
Bones	0	0	0	0	2	2	0	8	2	2	0	8	0	0	0	0	
Brushwood	3	3	0	12	0	0	0	0	0	0	0	0	3	3	0	12	
Chillies	94	1,190¾	297	11	180	2,239	559	12	86	1,018¼	262	1	0	0	0	0	
Charcoal	13	62¾	15	11	60	339	84	12	47	276¼	69	1	0	0	0	0	
Chunam	8	8	2	0	11	71	17	12	3	63	15	12	0	0	0	0	
Choyaroot	3	18½	4	10	1	27	6	12	0	8½	2	2	2	0	0	0	
Cocoanuts	2	29	7	4	5	8	2	0	3	0	0	0	0	21	5	4	
Cotton	1	24	6	0	1	19	4	12	0	0	0	0	0	5	1	4	
Casangoo	2	15¾	3	15	3	38	9	8	1	22¼	5	9	0	0	0	0	
Crabs	0	0	0	0	92	92	23	0	92	92	23	0	0	0	0	0	
Country Potatoes	0	0	0	0	8	56	11	0	8	56	14	0	0	0	0	0	
Cocoanut Plants	0	0	0	0	2	4	1	0	2	4	1	0	0	0	0	0	
Drum sticks	12	15¼	3	13	9	23	5	12	0	7¾	1	15	3	0	0	0	
Empty Boats	164	238½	59	10	137	175	43	12	0	0	0	0	27	63½	15	14	
Do. Dubbers	1	1	0	4	0	0	0	0	0	0	0	0	1	1	0	4	
Faggots	1,218	23,099	5,774	12	1,311	27,905	6,976	4	93	4,806	1,201	8	0	0	0	0	
Furniture	1	1	0	4	8	8	2	0	7	7	1	12	0	0	0	0	
Gingely Oil seeds	11	133¾	33	7	9	12	3	0	0	0	0	0	2	121¾	30	7	
Gunnies	2	2	0	8	0	0	0	0	0	0	0	0	2	2	0	8	
Hides	0	0	0	0	5	14	3	8	5	14	3	8	0	0	0	0	
Jungle sticks	6	95¼	23	13	14	200	50	0	8	104¾	26	3	0	0	0	0	
Do. wood	1	1	0	4	0	0	0	0	0	0	0	0	1	1	0	4	
Jaggery	0	0	0	0	1	7	1	12	1	7	1	12	0	0	0	0	
Mats	2	2	0	8	6	6	1	8	4	4	1	0	0	0	0	0	
Mullets	...	...	...	...	3	7	1	12	3	7	1	12	...	...	...	...	
Mangoes	...	...	...	...	1	7	1	12	1	7	1	12	...	...	...	...	
Nets	...	...	...	...	1	1	0	4	1	1	0	4	...	...	...	...	
Oysters	1	1	0	4	1	5	1	4	0	4	1	0	...	...	...	...	
Piece Goods	40	42	10	8	57	89	22	4	17	47	11	12	...	...	...	...	
Passengers	1,555	1,681¼	420	5	2,002	2,062	515	8	447	380¾	95	3	...	...	...	...	
Paddy	6	76	19	0	49	624	156	0	43	548	137	0	...	...	...	...	
Palmyrah leaves	23	333	83	4	64	284	71	0	41	0	0	0	0	49	12	4	
Palankeens	10	56½	14	2	8	28	7	0	0	0	0	0	2	28½	7	2	
Planks	53	128	32	0	4	11	2	12	0	0	0	0	49	117	29	4	
Palmyrahs	...	...	...	...	3	21	5	4	3	21	5	4	...	...	...	...	
Red wood	27	540¼	135	1	25	605	151	4	0	64¾	16	3	2	0	0	0	
Rattan	2	23¾	5	15	1	21	5	4	0	0	0	0	1	2¾	0	11	
Rafts of Timber	9	18	4	8	38	166	41	8	29	148	37	0	...	...	...	...	
Ropes	...	...	...	...	1	5	1	4	1	5	1	4	...	...	...	...	
Shells	1,984	18,750¼	4,687	9	1,473	23,142	5,785	8	0	4,391¾	1,097	15	511	...	...	...	
Salt-fish	301	410¼	102	9	228	469	117	4	0	58¾	14	11	73	...	...	...	
Salt	2,440	43,740½	10,937	2	2,415	54,585	13,646	4	0	10,836½	2,709	2	25	...	...	...	
Sundries	372	556½	139	2	225	300	75	0	0	...	...	...	147	256½	64	2	
Straw	38	443¼	110	13	45	524	131	0	7	80¾	20	3	...	...	...	...	
Saffron	7	79	19	12	5	39	9	12	...	...	...	...	2	40	10	0	
Sand	...	...	...	...	4	10	2	8	4	10	2	8	...	...	...	...	
Sheep	...	...	...	...	3	54	13	8	3	54	13	8	...	...	...	...	
Do. skins	...	...	...	...	3	9	2	4	3	9	2	4	...	...	...	...	
Tobacco	21	152½	38	2	51	681	170	4	30	528½	132	2	...	...	...	...	
Turf	87	126	31	8	...	...	...	...	...	...	...	...	87	126	31	8	
Turmeric	1	5¼	1	5	...	...	...	...	...	...	...	...	1	5¼	1	5	
Tiles	1	1	0	4	...	...	...	...	...	...	...	...	1	1	0	4	
Wood	728	13,314	3,328	8	701	14,524	3,631	0	0	1,210	302	8	27	0	0	0	
Total	9,287	1,05,467½	26,366	14	9,324	1,29,643	32,410	12	1,006	25,019¾	6,254	15	969	844¼	211	1	

E. C. CANAL SUPERINTENDENT'S OFFICE,
CAMP, MADRAS, *28th May* 1858.

(Signed) F. J. MOBERLY, Lieut.,
Superintendent of the E. C. Canal.

(True Copy.)

(Signed) E. LAWFORD, Lieut. Col.,
Officiating Chief Engineer

TABLE C.

Statement shewing the number of Boats, Tonnage, and the Amount of Toll collected on each sort of Goods which arrived at the Basin from each Village by Cochrane's Canal, during the Official year 1857-58.

NAMES OF VILLAGES.	Wood.				Faggots.				Shells.				Salt.				Grain.				Miscellaneous produce.				Total No. of Boats.	Their Tonnage	Amount of Toll paid at Madras..	
	Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.		Boats.	Tons.	Toll.					
			Rs.	A.			Rs.	A.			Rs.	A.			Rs.	A.							Rs.	A.	Rs.	Rs	Rs.	A.
Ath epett	..	..	..	..	..	..	..	..	..	..	..	..	761	18,068	4,517	..	..	..	..	..	5	5	1	4	766	18,073	4,518	4
Arrumbauckum	..	..	..	..	115	2,373	593	4	248	5,330	1,332	8	..	..	..	..	..	..	..	..	23	148	37	0	392	7,851	1,962	12
Arrungum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	24	6	0	2	24	6	0
Beemarpaulium	..	..	..	..	112	2,293	573	4	27	480	120	0	..	..	..	..	..	..	..	..	36	161	40	4	175	2,934	733	8
Coromandel	9	19	4	12	136	353	88	4	142	340	85	0	..	..	..	..	..	..	..	..	206	365	91	4	493	1,077	269	4
Cusbah Streehurricottah	324	6,664	1,666	0	399	9,829	2,457	4	..	..	..	..	..	..	..	..	..	..	..	..	50	570	142	8	773	17,063	4,265	12
Caringal	5	5	1	4	..	..	..	..	4	4	1	0	..	..	..	..	..	..	..	..	34	38	9	8	43	47	11	12
Chindamoney Covil	2	2	0	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	41	10	4	36	43	10	12
Culloor	..	..	..	..	5	23	5	12	9	10	2	8	..	..	..	..	..	..	..	..	..	..	..	..	14	33	8	4
Chunamcolum	..	..	..	..	..	..	..	..	2	15	3	12	..	..	..	..	..	..	..	..	6	30	7	8	8	45	11	4
Calangy	..	..	..	..	..	..	..	..	9	25	6	4	..	..	..	..	..	..	..	..	4	17	4	4	13	42	10	8
Cautoopully	..	..	..	..	..	..	..	..	32	47	11	12	..	..	..	..	1	4	1	0	6	21	5	4	39	72	18	0
Cateevauck	..	..	..	..	..	..	..	..	1	1	0	4	..	..	..	..	..	..	..	..	12	17	4	4	13	18	4	8
Curricaudoo	..	..	..	..	1	1	0	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0	4
Cummarpaulium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	7	1	12	1	7	1	12
Doogoorazpatam	11	267	66	12	1	28	7	0	..	..	..	..	..	..	..	..	5	78	19	8	104	893	223	4	121	1,266	316	8
Ennore	1	5	1	4	..	..	..	..	21	21	5	4	407	9,518	2,379	8	..	..	..	..	220	283	70	12	649	9,827	24[illegible]	12
Elloor	126	2,790	699	0	16	370	92	8	..	..	..	..	..	..	..	..	7	161	40	4	11	183	45	12	160	3,510	877	8
Ellawoor	3	71	17	12	..	..	..	..	128	2,299	574	12	..	..	..	..	..	..	..	..	..	..	..	..	131	2,370	592	8
Goondall	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	15	3	12	1	15	3	12
Irkum	..	..	..	..	..	..	..	..	314	5,863	1,465	12	..	..	..	..	..	..	..	..	12	30	7	8	326	5,893	1,473	4
Kooreeveetittoo	..	..	..	..	..	..	..	..	223	4,106	1,026	8	..	..	..	..	..	..	..	..	..	..	..	..	223	4,106	1,026	8
Kondoorpaulem	2	35	8	12	1	20	5	0	..	..	..	..	..	..	..	..	5	66	16	8	48	608	152	0	56	729	182	4
Kongeely	..	..	..	..	1	12	3	0	..	..	..	..	..	..	..	..	..	..	..	..	11	102	25	8	12	114	28	8
Mathoopalium	1	1	0	4	5	94	23	8	237	3,858	964	8	..	..	..	..	..	..	..	..	5	47	11	12	248	4,000	1,000	0
Mangodoo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	26	6	8	10	26	6	8
Moonapalium	..	..	..	..	1	26	6	8	..	..	..	..	..	..	..	..	..	..	..	..	9	19	4	12	10	45	11	4
Nattalatittoo	..	..	..	..	..	..	..	..	8	8	2	0	..	..	..	..	..	..	..	..	1	26	6	8	9	34	8	8
Naccathooroovoo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	19	4	12	2	19	4	12
Omah Samoodrum	..	..	..	..	..	..	..	..	36	411	102	12	..	..	..	..	..	..	..	..	..	..	..	..	36	411	102	12
Pulicat	1	1	0	4	..	..	..	..	20	99	24	12	..	..	..	..	24	85	21	4	2,176	2,386	596	8	2,221	2,571	642	12
Poozhteevaukum	..	..	..	..	1	21	5	4	..	..	..	..	384	7,600	1,900	..	..	..	..	..	38	42	10	8	423	7,663	1,915	12
Pumbly	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	18	4	8	3	18	4	8
Poondy Coopum	8	199	49	12	240	5,640	1,410	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	0	8	250	5,841	1,460	4
Paroombaukum	1	27	6	12	1	16	4	0	..	..	..	..	..	..	..	..	..	..	..	..	0	0	0	0	2	43	10	12
Paroovadoo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	7	1	12	3	7	1	12
Putray	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0	4	1	1	0	4
Ramapoorum	..	..	..	..	20	398	99	8	7	121	30	4	..	..	..	..	..	..	..	..	4	75	18	12	31	594	148	8
Royadooroo Poondy	20	483	120	12	8	190	47	8	..	..	..	..	..	..	..	..	..	..	..	..	3	30	7	8	31	703	175	12
Reddypaulium	2	56	14	0	1	29	7	4	..	..	..	..	..	..	..	..	4	4	1	0	..	..	..	..	7	89	22	4
Shadien Coopum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	24	6	0	22	24	6	0
Sheroomboor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	7	1	12	3	7	1	12
Soobah Reddypaulium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	0	8	..	..	..	..	2	2	0	8
Tuda Coopum	89	1,774	443	8	247	5,440	1,360	0	..	..	..	..	..	..	..	..	..	..	..	..	135	1,902	475	8	471	9,116	2,279	0
Thauthoo pettay	8	8	2	0	1	1	0	4	..	..	..	..	..	..	..	..	..	..	..	..	16	209	52	4	25	218	54	8
Theeroovuttoor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	0	4	1	1	0	4
Vulloor	..	..	..	..	..	..	..	..	..	..	..	..	575	13,524	3,381	0	..	..	..	..	..	..	..	..	575	13,524	33,81	0
Voyaloor	..	..	..	..	..	..	..	..	..	..	..	..	288	5,875	1,468	12	..	..	..	..	1	3	0	12	289	5,878	1,469	8
Vanadoo	1	30	7	8	11	293	73	4	5	104	26	0	..	..	..	..	..	..	..	..	3	9	2	4	20	436	109	0
Yellagalavauckum	88	2,081	520	4	18	455	113	12	..	..	..	..	..	..	..	..	10	236	59	0	65	440	110	0	181	3,212	803	0
Total..	702	14,524	3,631	0	1,341	27,905	6,976	4	1,473	23,142	5,784	8	2,415	54,585	13,646	4	58	636	159	0	3,335	8,851	2,212	12	9,324	1,29,643	32,410	12

E. C. CANAL SUPERINTENDENT'S OFFICE,
CAMP, MADRAS, 28*th May* 1858.

(Signed) F. J. MOBERLY, Lieut.,
Superintendent of the E. C. Canal.

(True Copy.)

(Signed) E. LAWFORD, Lieut. Col.,
Officiating Chief Engineer.

TABLE D.

List of Boats which carry Produce.

Tonnage of Boats.	Number of Boats of each kind.	Total Tonnage of each kind.	Increase in the official year 1857-58.	
			Boats.	Tons.
I	142	142	18	18
II	10	20	1	2
III	16	48	2	6
IV	7	28	1	4
V	11	55	1	5
VI	7	42	1	6
VII	15	105	...	...
VIII	3	24	...	...
IX	2	18	...	...
X	3	30	...	...
XI	2	22	...	...
XII	1	12	...	...
XIII	4	52	...	...
XIV	4	56	...	...
XV	6	90	...	...
XVI	32	512	2	32
XVII	15	255	1	17
XVIII	26	468	1	18
XIX	33	627	...	...
XX	22	440	...	...
XXI	21	441	...	...
XXII	16	352	...	...
XXIII	21	483	1	23
XXIV	14	336	...	...
XXV	10	250	...	...
XXVI	32	832	2	52
XXVII	22	594	6	162
XXVIII	20	560	6	168
XXIX	12	348	4	116
XXX	9	270	2	60
XXXI	3	93	1	31
XXXII	4	128	3	96
XXXIII	2	66	1	33
Total...	547	7,799	54	819

E. C. Canal Superintendent's Office,
Camp, Madras, 28th *May* 1858.

(Signed) F. J. MOBERLY, Lieut.,
Supt. of the E. C. Canal.

(True Copy.)

(Signed) E. LAWFORD, Lieut. Col.,
Officiating Chief Engineer.

Statement shewing the Monthly Toll Collections on Miscellaneous Produce and Salt.

Months.	Miscellaneous Produce.				Salt.				Total No. of Boats.	Their Tonnage.	Amount of Toll levied at 4 Annas per Ton.		
	Boats.	Tons.	Toll.		Boats.	Tons.	Toll.						
			Rs.	A.			Rs.	A.			Rs.	A.	P.
1857.													
May.	577	6,379	1,594	12	335	7,722	1,930	8	912	14,101	3,525	4	0
June...	652	7,247	1,811	12	262	6,194	1,548	8	914	13,441	3,360	4	0
July.	642	7,323	1,830	12	352	8,318	2,079	8	994	15,641	3,910	4	0
August	613	6,782	1,695	8	295	6,615	1,653	12	908	13,397	3,349	4	0
September....	529	5,628	1,407	0	237	5,241	1,310	4	766	10,869	2,717	4	0
October	405	4,782	1,195	8	96	2,050	512	8	501	6,832	1,708	0	0
November.....	446	5,114	1,278	8	80	1,435	358	12	526	6,549	1,637	4	0
December..	488	5,947	1,486	12	122	2,725	681	4	610	8,672	2,168	0	0
1858.													
January..	572	6,704	1,676	0	61	1,299	324	12	633	8,003	2,000	12	0
February...	512	6,086	1,521	8	33	528	132	0	545	6,614	1,653	8	0
March...	606	6,573	1,643	4	185	4,128	1,032	0	791	10,701	2,675	4	0
April..	867	6,493	1,623	4	357	8,330	2,082	8	1,224	14,823	3,705	12	0
Total...	6,909	75,058	18,764	8	2,415	54,585	13,646	4	9,324	1,29,643	32,410	12	0

E. C. Canal Superintendent's Office,
Camp, Madras, 28th *May* 1858.

(Signed) F. J. MOBERLY, Lieut.,
Supt. of the E. C. Canal.

(True Copy.)

(Signed) E. LAWFORD, Lieut. Col.,
Officiating Chief Engineer.

Statement of the Traffic shewing the number of Boats and Rafts passing through the undermentioned Locks in Godavery Division.

Months.	Grain.		Other Agricultural produce.		Salt.		Lime and Shell Chunam.		Firewood.		Other Goods.		Empty Boats.	Total.	Passenger Boats.	Paddle Boats.	Transit Boats.	Total.	Grand Total No. of Boats.	Rafts of Timber.		Rafts of Bamboo.		Total Rafts.		Total value of Goods.	Remarks.
	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.								No.	Value.	No.	Value.	No.	Value.		
1857.												*DOWLAISHWERAM.*															
May........	94	12,597	86	39,002	38	9,425	7	228	94	2,100	100	57,701	297	716	9	15	...	24	740	149	9,148	336	3,107	485	12,255	1,33,308	
June........	209	31,059	126	64,246	43	10,329	6	155	28	558	107	53,772	332	851	7	26	...	33	884	184	20,574	179	3,588	363	23,162	1,83,281	
July........	248	46,005	91	44,451	54	15,775	5	106	54	919	190	1,29,185	459	1,101	3	17	...	20	1,121	91	23,662	61	726	152	24,388	2,60,829	
August....	135	27,272	102	38,682	42	10,752	16	762	4	61	109	1,24,239	313	721	3	12	...	15	736	4	39	6	306	10	345	2,02,113	
September	129	24,824	100	58,898	49	13,044	8	221	0	0	126	40,206	289	701	2	11	...	13	714	4	60	2	12	6	72	1,37,265	
October....	127	57,304	204	1,20,945	28	7,356	14	890	0	0	90	24,482	357	820	4	19	...	23	843	5	2,445	5	41	10	2,486	2,13,463	
November.	53	10,718	96	19,152	29	7,734	8	440	0	0	77	14,572	205	468	2	13	...	15	483	88	18,220	8	285	96	18,505	71,121	From 1st to 11th Nov. 1857, the Annicut was breached and all the water let out of the Canals.
December..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
1858.																											
January....	9	1,224	69	36,698	36	6,797	3	100	1	14	58	17,415	105	281	0	3	0	3	284	15	478	49	1,431	64	1,909	64,157	
February..	72	9,233	102	37,009	54	7,389	14	410	0	0	57	9,621	146	445	24	14	0	38	483	7	3,063	37	1,080	44	4,143	67,805	
March......	109	20,785	215	61,553	38	6,886	4	134	96	935	97	17,356	303	862	6	11	150	167	1,029	19	464	135	2,104	154	2,568	1,10,217	
April.......	70	11,408	193	73,362	63	12,980	9	252	56	868	107	15,215	366	864	22	31	90	149	1,013	15	1,461	127	2,380	142	3,841	1,17,926	
1857.												*BOBBERLUNKAH.*															
May........	30	4,627	20	6,293	4	925	8	300	0	0	72	16,559	126	260	0	31	0	31	291	9	795	15	379	24	1,174	29,875	
June........	83	12,775	23	8,707	8	2,150	6	233	0	0	71	20,347	106	297	4	12	0	16	313	6	2,779	12	434	18	3,213	47,425	
July........	52	10,905	17	13,692	10	2,175	4	100	0	0	61	17,090	100	244	7	17	0	24	268	0	129	2	630	2	759	44,721	
August.....	54	10,760	9	6,496	2	438	1	50	0	0	43	13,796	63	172	6	11	0	17	189	0	0	0	0	0	0	31,540	
September.	42	9,520	13	6,508	6	675	2	73	1	20	46	35,954	94	200	5	10	0	15	215	0	0	4	107	4	107	52,857	
October....	56	11,328	22	10,207	6	150	0	0	0	0	53	13,850	95	232	7	17	0	24	256	8	163	2	150	10	313	35,848	
November.	12	1,560	8	3,820	4	880	1	20	0	0	16	4,314	50	91	6	4	0	10	101	7	548	6	1,593	13	2,141	12,735	
December..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Do. do.
1858.																											
January...	5	720	5	289	6	1,275	0	0	0	0	18	7,771	27	61	7	9	0	16	77	4	2,192	1	80	5	2,272	12,327	
February..	7	1,296	6	750	11	2,063	2	24	0	0	52	7,591	32	109	6	15	0	21	131	0	0	3	121	3	121	11,845	
March......	19	3,514	28	12,278	13	1,850	2	53	1	16	54	7,209	54	171	17	29	0	46	217	5	5,468	5	1,011	10	6,479	31,399	
April.......	47	7,546	27	10,953	8	1,850	0	0	0	0	73	16,783	86	241	4	20	0	24	265	4	1,855	11	4,203	15	6,058	43,190	
1857.												*VIZIASWERAM.*															
May........	199	25,824	48	17,621	14	2,420	12	308	3	32	60	10,923	361	697	3	40	0	43	740	60	6,409	30	895	90	7,304	64,432	
June........	438	65,646	73	28,049	21	4,140	5	109	12	251	63	8,751	333	945	19	26	0	45	990	15	5,935	97	1,465	112	7,400	1,14,316	
July........	432	82,776	55	19,813	34	7,210	8	221	3	44	83	35,452	550	1,165	13	19	0	32	1,197	22	974	22	561	44	1,535	1,47,051	
August. ...	233	46,336	59	21,923	28	5,880	27	634	2	44	76	25,872	352	777	9	41	0	50	827	1	170	2	105	3	275	1,00,964	
September.	238	49,198	72	36,127	28	5,660	11	344	6	167	56	25,410	288	699	13	25	0	38	737	0	0	0	0	0	0	1,16,906	
October....	301	59,416	70	53,476	18	3,630	22	684	21	555	66	23,537	328	826	13	24	0	37	863	40	798	50	743	90	1,541	1,42,839	
November.	88	17,424	46	31,089	14	3,230	15	598	3	61	31	10,175	157	354	9	6	0	15	369	10	248	146	1,168	156	1,416	63,993	
December..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	From 1st to 14th Nov. 1857, the Annicut was breached and all the water let out of the Canals.
1858.																											
January...	33	6,136	58	26,729	25	3,470	10	254	9	57	22	6,423	114	271	4	10	0	14	285	62	4,416	14	280	76	4,696	47,765	
February...	109	21,568	65	26,240	42	7,750	32	1,301	0	0	82	15,189	178	508	21	24	0	45	553	27	1,911	88	1,762	115	3,673	75,721	
March......	179	30,149	132	45,971	32	4,940	9	434	15	260	76	14,501	283	726	30	27	0	57	783	42	431	50	2,205	92	2,639	98,894	
April........	177	27,563	125	51,724	27	5,150	6	286	10	195	80	9,401	245	670	58	2	0	80	750	12	482	50	1,372	62	1,854	96,173	

Statement of the Traffic shewing the number of Boats and Rafts passing through the undermentioned Locks in Kistnah Division.

Months.	Grain.		Other Agricultural produce.		Salt.		Lime and Shell Chunam.		Firewood.		Other Goods.		Empty Boats.	Total.	Passenger Boats.	Paddle Boats.	Total.	Grand Total No. of Boats.	Rafts of Timber.		Rafts of Bamboo.		Total Rafts.		Total value of Goods.	Remarks.
	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.							No.	Value.	No.	Value.	No.	Value.		
BEZOARAH LOCKS.																										
1857.																										
May	1	128	1	216	0	0	...	...	1	4	0	0	2	5	...	...	...	5	...	...	8	400	8	400	748	
June	8	2,480	4	1,509	0	0	...	...	0	0	0	0	6	18	...	...	...	18	...	...	16	1,541	16	1,541	5,530	
July	9	1,832	25	11,175	0	0	...	...	0	0	2	375	3	39	...	...	...	39	...	...	10	730	10	730	14,112	
August....	7	1,804	11	9,700	5	2,295	...	...	0	0	0	6,635	3	32	...	...	...	32	...	...	1	22	1	22	20,456	
September.	10	3,300	21	22,350	0	0	...	...	0	0	1	40	6	38	...	...	...	38	...	...	0	0	0	0	25,690	
October....	9	1,840	31	24,560	0	0	...	...	3	30	3	1,500	5	51	...	...	...	51	...	...	6	800	6	800	28,730	
November.	0	0	7	9,200	0	0	...	...	0	0	0	0	4	11	...	...	...	11	..	...	0	9	0	0	9,200	
December..	3	720	3	1,440	0	0	...	...	0	0	0	0	5	11	...	...	...	11	...	...	30	400	30	400	2,560	
1858.																										
January....	4	1,200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	4	558	4	558	1,758	
February...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Emptied for repairs.
March	6	1,360	2	600	...	...	...	...	...	...	1	400	6	15	...	...	...	15	2	800	6	420	8	1,220	3,580	
April	11	4,750	3	600	...	...	...	...	...	...	2	900	5	21	...	...	...	21	4	630	10	380	14	1,010	7,260	
SEETANAGRAM LOCK.																										
May	3	371	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	3	11	3,434	21	1,296	32	4,730	5,101	
June	11	1,497	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	11	11	2,102	10	726	21	2,828	4,325	
July	4	1,270	1	459	...	...	...	...	...	...	1	711	...	6	...	...	...	6	6	1,735	3	86	9	1,821	4,261	
August ...	9	3,358	11	6.613	...	...	...	...	...	...	1	580	...	21	...	...	...	21	1	12	1	56	2	68	10,619	
September.	2	624	3	3,300	...	...	...	...	...	...	2	3,128	...	7	...	...	...	7	2	596	2	64	4	660	7,712	
October ...	3	576	...	...	...	...	...	...	...	...	2	1,031	...	5	...	...	...	5	1	340	...	...	1	340	1,947	
November.	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
December.	1	98	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	690	3	250	5	940	1,038	
1858.																										
January...	2	228	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	4	340	6	1,159	10	1,499	1,727	
February..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	145	4	388	7	533	533	
March.	4	721	1	19	...	...	...	...	...	...	...	...	...	5	...	...	...	5	11	1,062	14	1,356	25	2,418	3,158	
April.......	24	3,843	...	...	...	...	...	...	...	...	1	10	7	32	...	...	...	32	8	2,691	10	813	18	3,504	7,357	

Statement of the Traffic shewing the number of Boats and Rafts passing through the Eastern Coast Canal.

Months.	Grain.		Other Agricultural produce.		Salt.		Lime and Shell Chunam.		Firewood.		Other Goods.		Empty Boats.	Total.	Passenger Boats.	Paddle Boats.	Total.	Grand Total No. of Boats.	Rafts of Timber.		Rafts of Bamboo.		Total Rafts.		Total value of Goods.	Remarks.
	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.	Boats.	Value.							No.	Value.	No.	Value.	No.	Value.		
1857.																										
May	...	...	19	7,400	335	1,38,960	156	4,185	164	13,808	104	1,596	11	789	123	...	123	912	12	450	...	...	12	450	1,66,399	
June	...	...	32	10,320	262	1,11,480	202	6,300	168	13,083	94	2,832	18	776	138	...	138	914	11	1,050	...	...	11	1,050	1,45,065	
July	...	...	21	11,240	352	1,49,760	170	4,530	212	16,310	124	2,508	4	883	111	...	111	994	3	300	...	...	3	300	1,84,648	
August.....	...	...	22	11,250	295	1,19,040	130	3,300	225	17,171	102	1,896	4	778	130	...	130	908	1	100	...	...	1	100	1,52,757	
September.	...	...	34	16,050	237	94,520	98	2,430	178	14,252	159	1,908	5	645	121	...	121	766	...	...	...	...	...	...	1,29,160	
October....	...	...	31	22,350	96	36,960	67	1,590	147	12,467	62	1,884	3	406	95	...	95	501	...	...	...	...	...	...	75,251	
November.	...	...	61	40,350	80	25,800	68	1,530	147	12,355	56	2,496	2	414	112	...	112	526	...	...	...	...	...	...	82,531	
December..	...	...	32	25,300	122	50,280	91	2,730	170	13,874	42	2,184	9	466	144	...	144	610	...	...	...	...	...	...	94,368	
1858.																										
January....	9	6,510	23	13,500	61	23,400	131	4,020	160	14,063	31	1,224	8	423	210	...	210	633	...	...	...	...	...	...	62,717	
February....	18	7,392	15	7,600	33	9,480	117	3,450	154	13,146	36	1,980	5	378	158	...	158	536	9	400	...	...	9	400	43,448	
March......	6	780	19	7,965	185	74,280	123	3,510	176	15,071	41	2,376	5	555	211	...	211	766	16	2,880	...	...	16	2,880	1,06,862	
April.........	4	560	19	7,470	357	1,49,940	124	3,204	176	14,896	34	1,632	64	778	446	...	446	1224	...	...	...	...	...	...	1,77,738	

Central Office of P. W.,
Fort Saint George,
16*th December* 1858.

(Signed) E. LAWFORD, Lieut. Colonel,

Officiating Chief Engineer.

Statement shewing the financial results of renumeratice works exceeding in cost Rupees 10,000 each, in the Presidency of Madras for the official year 1856-57.

			Rs.	A.	P.
Kistnah Annicut.	Kistnah Division.	Total amount of interest due upon the construction charges, Rupees 7,72,186-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent..................	54,582	11	8
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent....................................	30,887	7	2
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	8,962	0	0
Poollair Channel from Bezoarah to Patamata.		Total amount of interest due upon the construction charges, Rupees 71,715, incurred up to the end of the previous year at the fixed rate of 4 per cent..........................	5,737	3	2
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent....................................	2,868	9	7
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	7,709	10	6
		Do. do. of the year for which the account is rendered....................................	5,309	14	6
Poollair Channel from Patamata to Weyoor and constructing Lock and Calingulah at Cunkepaud.		Total amount of interest due upon the construction charges, Rupees 89,723-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent......................	2,817	3	10
		Amount of interest due upon the construction charges incurred for the year for which the amount is rendered at the fixed rate of 4 per cent..............................	3,588	14	9
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	8,830	0	0
		Do. do. of the year for which the account is rendered....................................	10,925	12	10
Boodamair Channel from Mootalumpaud to Casarapilly.		Total amount of interest due upon the construction charges, Rupees 41,969-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent................	1,585	12	1
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent....................................	1,678	12	2
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	9,671	0	11
		Do. do. of the year for which the account is rendered....................................	812	1	0
Cutting a Channel to divert a portion of the course of Boodamair River and constructing an aqueduct to carry it to Ellore High Level Channel.		Total amount of interest due upon the construction charges, Rupees 25,430-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent..............	0	0	0
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent....................................	1,017	3	2
		Carried over......	1,57,104	5	4

		Rs.	A.	P.
	Total receipts up to the end of the previous year..	1,02,739	0	0
	Total receipts on account of the year for which the account is rendered..............	1,06,376	0	0
	Carried over...	2,09,115	0	0

Statement shewing the financial results of renumerative works exceeding in cost

			Rs.	A.	P.
		Brought over......	1,57,104	3	4
Mopedavy or Eastern Bank Channel.	Kistnah Division.	Total amount of interest due upon the construction charges, Rupees 24,187, incurred up to the end of the previous year at the fixed rate of 4 per cent........................	0	0	0
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent..	979	7	8
		Charges for maintenance, renewals, &c., of the year for which the account is rendered..	4,256	0	0
Toongabudra Channel.		Total amount of interest due upon the construction charges, Rupees 57,460, incurred up to the end of the previous year at the fixed rate of 4 per cent...........	1,590	12	10
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent..	2,298	6	5
		Charges for maintenance, renewals, &c., up to the end of the previous year...............	2,090	0	0
		Do. do. of the year for which the account is rendered..	3,763	12	0
Vullabhapooram Channel.		Total amount of interest due upon the construction charges, Rupees 14,332, incurred up to the end of the previous year at the fixed rate of 4 per cent........................	22	2	7
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent......................	573	4	6
		Charges for maintenance, renewals, &c., up to the end of the previous year.................	761	11	11
Nizampatam Channel.		Total amount of interest due upon the construction charges, Rupees 1,15,539, incurred up to the end of the previous year at the fixed rate of 4 per cent........................	2,184	15	3
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent..	4,621	8	11
		Charges for maintenance, renewals, &c. up to the end of the previous year.	230	0	0
		Do. do. of the year for which the account is rendered..	4,882	12	1
		Total Rupees......	1,85,359	3	6
Pennar Annicut.	Nellore.	Total amount of interest due upon the construction charges, Rupees 93,106-1-11, incurred up to the end of the previous year at the fixed rate of 4 per cent................	3,724	3	11
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at 4 per cent.......	3,724	3	11
		Amount of interest due upon the construction charges, Rupees 15,623-14-11, incurred during the year for which the account is rendered at 4 per cent..................................	624	15	4
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	6,364	7	4
		Do. do. for the year for which the account is rendered..	1,056	0	0
		Total Rupees......	15,493	14	6

Rupees 10,000 each, in the Presidency of Madras for the official year, 1856-57.

		Rs.	A.	P.
	Brought over......	2,09,115	0	0
	Total Rupees......	2,09,115	0	0
Pennar Annicut.................	Total receipts up to the end of the previous year..	19,608	14	8
	Total receipts on account of the year for which the account is rendered.................	21,088	0	1
	Total Rupees......	40,696	14	9

Statement shewing the financial results of renumeratice works exceeding in cost

			Rs.	A.	P.
Palaur Annicut.... ..	North Arcot.	Total amount of interest due upon the construction charges, Rupees 2,31,872-8-4, incurred up to the end of the previous year at the fixed rate of 4 per cent..	11,354	13	1
		Amount of interest due on the construction charges, Rupees 2,19,256-1-2, incurred for the year for which the account is rendered, at the fixed rate of 4 per cent................	8,770	3	10
		Charges for maintenance, renewals, &c., up to the end of the previous year................	632	0	0
		Do. do. for the year for which the account is rendered..................................	474	0	0
		Total Rupees......	21,231	0	11
Ponnay Annicut......		Total amount of interest due upon the construction charges, Rupees 15,874-1-5, incurred up to the end of the previous year at the fixed rate of 4 per cent....................	634	15	5
		Amount of interest due upon the construction charges Rupees, 30,635-1-0, incurred for the year for which account is rendered at the fixed rate of 4 per cent.........................	225	6	5
		Charges for maintenance, renewals, &c., up to the end of the previous year..............	250	0	0
		Do. Do. for the year for which the account is rendered..................................	750	0	0
		Total Rupees......	2,860	5	10
Coleroon River Lower Annicut.	South Arcot.	Total amount of interest due upon the construction charges of Rupees 1,29,050-10-0, incurred up to the end of the previous year at the fixed rate of 4 per cent...	98,078	7	7
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the do. do. ..	5,162	0	4
		Charges for maintenance, renewals, &c., up to the end of the previous year..............	3,66,874	4	10
		Do. do. for the year for which the account is rendered..................................	31,425	11	2
		Total Rupees......	5,01,537	7	11
Vellaur Annicut......		Total amount of interest due upon the construction charges of Rupees 94,036-9-1, incurred up to the end of the previous year at the fixed rate of 4 per cent................	30,091	11	2
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent..........................	3,761	7	5
		Charges for maintenance, renewals, &c., up to the end of the previous year............	74,315	11	3
		Do. do. for the year for which the account is rendered..................................	21,855	5	8
		Total Rupees......	1,33,022	2	6
Ragavyen Voikal....		Total amount of interest due upon the construction charges of Rupees 13,602-12-7, incurred up to the end of the previous year at the fixed rate of 4 per cent................	4,352	14	2
		Amount of interest due on the construction charges incurred for the year for which the amount is rendered at the fixed rate of 4 per cent....................................	544	1	9
		Carried over......	4,896	15	11

Rupees 10,000 *each, in the Presidency of Madras for the official year* 1856-57.

		Rs.	A.	P.
Palaur Annicut................	Total receipts up to the end of the previous year....................................	15,804	0	0
	Total receipts on account of the year for which the account is rendered............	17,414	0	0
	Total Rupees......	33,218	0	0
Ponnay Annicut..............	Total receipts up to the end of the previous year....................................	22,818	0	0
	Total receipts on account of the year for which the account is rendered..............	25,889	0	0
	Total Rupees......	48,707	0	0
Coleroon River Lower Annicut.	Total receipts up to the end of the previous year....................................	44,09,816	0	0
	Total receipts on account of the year for which the amount is rendered..............	3,31,201	0	0
	Total Rupees......	47,41,017	0	0
Vellaur Annicut....	Total receipts up to the end of the previous year....................................	5,45,704	0	0
	Total receipts on account of the year for which the account is rendered	62,728	0	0
	Total Rupees......	6,08,432	0	0
Ragavyen Voikal............	Total receipts up to the end of the previous year....................................	1,74,665	0	0
	Total receipts on account of the year for which the account is rendered............	30,224	0	0
	Carried over......	2,04,889	0	0

Statement shewing the financial results of remunerative works exceeding in cost Rupees 10,000, *each in the Presidency of Madras, for the official year* 1856-57.

			Rs.	A.	P.
		Brought over.....	4,899	15	11
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	2,201	6	9
		Do. do. for the year for which the account is rendered..................	2,527	14	9
		Total Rupees......	9,629	5	5
Trivaudy Annicut......	South Arcot.	Total amount of interest due upon the construction charges of Rupees 13,729-2-3, incurred up to the end of the previous year at the fixed rate of 4 per cent..................	4,303	5	4
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent	519	2	8
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	881	0	8
		Do. do. for the year for which the account is rendered..................	87	9	6
		Total Rupees......	5,914	2	2
Upper Coleroon Annicut.	Tanjore.	Total amount of interest due upon the construction charges, Rupees 2,29,865-8-0, incurred up to the end of the previous year at the fixed rate of 4 per cent..................	1,43,910	6	0
		Amount of interest, due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent..................	9,591	10	0
		Charges for maintenance, renewals, &c., up to the previous year..................	1,05,750	11	0
		Do. do. of the year for which the account is rendered	13,921	15	0
		Total Rupees......	2,73,190	10	0
Lower Coleroon Annicut and South Raja Vaikal.		Total amount of interest due upon the construction charges, Rupees 73,789-13-0, incurred up to the end of the previous year at the fixed rate of 4 per cent..................	43,724	12	0
		Amount of interest due on the construction charges incurred for the year for which the account is rendered..................	2,919	9	0
		Amount of interest due on the construction charges, Rupees 1,30,233-14-0, incurred during the year for which the account is rendered at the fixed rate of 4 per cent...	5,529	5	8
		Total Rupees......	52,203	10	8
Chittanai Annicut across Vigay River	Madura.	Total amount of interest due upon the construction charges, Rupees 15,995, incurred up to the end of the previous year at the fixed rate of 4 per cent..................	13,672	7	9
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent	639	12	10
		Charges for maintenance, renewals, &c., up to the end of the previous year..................	17,026	0	0
		Do. do. of the year for which the account is rendered..................	144	0	0
		Total Rupees......	31,482	4	7

		Rs.	A.	P.
	Brought over......	2,04,889	0	0
	Total Rupees......	2,04,889	0	0
Trivaudy Annicut......	Total receipts up to the end of the previous year.................................. ..	1,85,870	7	8
	Total receipts on account of the year for which the account is rendered	24,206	12	4
	Total Rupees......	2,10,077	4	0
Upper Coleroon Annicut.....	Total receipts up to the end of the previous year...	55,73,636	0	0
	Total receipts on account of the year for which the account is rendered................	8,02,515	0	0
	Total Rupees......	63,76,151	0	0
Lower Coleroon Annicut.....	Total receipts up to the end of the previous year...	2,53,716	1	0
	Total receipts on account of the year for which the account is rendered..............	17,624	9	0
	Total Rupees......	2,71,340	10	0
Chittanai Annicut across Vigay River.	Total receipts up to the end of the previous year..	1,02,001	0	0
	Total Receipts on account of the year for which the account is rendered..............	3,453	0	0
	Total Rupees......	1,05,457	0	0

Statement shewing the financial results of renumerative works exceeding in cost Rupees 10,000, each in the Presidency of Madras, for the official year 1856-57.

			Rs.	A.	P.
Comenpolliem Dam and Watercourse.	Coimbatore.	Total amount of interest due upon the construction charges, Rupees 42,970-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent...............	48,126	4	4
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at do. do.	1,718	12	9
		Charges for maintenance, renewals, &c., up to the end of the previous year................	9,439	11	9
		Do. do. of the year for which the account is rendered..............................	389	12	9
		Total Rupees......	59,674	11	7
Comptah and Dharwar line.	Canara.	Total amount of interest due upon the construction charges, Rupees 2,32,847-1-11, incurred up to the end of the previous year at the fixed rate of 4 per cent.........	9,313	14	1
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at 4 per cent......	9,313	14	1
		Total Rupees......	18,627	12	2
Chowghaut Yennamakul Dam.	Malabar.	Total amount of interest due upon the construction charges, Rupees 30,879-12-11, incurred up to the end of the previous year at the fixed rate of 4 per cent...............	14,822	4	11
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per cent	1,235	3	1
		Charges for maintenance, renewals, &c., up to the end of the previous year................	13,910	0	9
		Do. do. of the year for which the account is rendered..............................	463	6	2
		Total Rupees......	30,430	14	11
East Coast Canal.....		Total amount of interest due on the construction charges, Rupees 3,74,581-0-0, incurred up to the end of the previous year at the fixed rate of 4 per cent...............	14,983	3	10
		Amount of interest due on the construction charges for the year for which the account is rendered at the fixed rate of 4 per cent.	14,983	3	10
		Amount of interest due on the construction charges, Rupees 93,018-0-0, incurred during the year for which the account is rendered at the fixed rate of do.	3,720	11	6
		Charges for maintenance, renewals, &c., up to the end of the previous year..............	1,28,478	9	1
		Do. do. for the year for which the account is rendered..............................	4,472	0	0
		Total Rupees......	1,66,637	12	3

Central Office of Public Works,
Fort Saint George,
9th September 1858.

		Rs.	A.	P.
Commenpolliem Dam and Watercourse.	Total receipts up to the end of the previous year..	28,620	5	7
	Total receipts on account of the year for which the account is rendered..............	916	0	6
	Total Rupees......	29,536	6	1
Comptah and Dharwar line...	Total receipts up to the end of the previous year...	8,098	14	3
	Total receipts on account of the year for which the account is rendered..............	3,328	2	0
	Total Rupees......	11,427	0	3
Chowghaut Yennamakul Dam.	Total receipts up to the end of the previous year..	25,744	12	9
	Total receipts on account of the year for which the account is rendered..............	2,724	9	5
	Total Rupees......	28,469	6	2
East Coast Canal............	Total receipts up to the end of the previous year..	5,40,307	14	8
	Total receipts on account of the year for which the account is rendered..............	25,486	2	0
	Total Rupees......	5,65,794	0	8

(Signed) E. LAWFORD, Major,
Officiating Chief Engineer.

(True Copy.)
E. LAWFORD, Lieut. Colonel,
Officiating Chief Engineer.

Report of the state of Audit in the Chief Engineer's Office for the year 1857-58.

District.	Bills remaining on the 1st May 1857.		Bills received during the official year 1857-58.		Total.		Bills passed by the Chief Engineer.		Bills recommended to Government.		Bills returned.		Total.		Bills remaining on the 1st May 1858.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Ganjam	7	8,553 3 7	312	2,46,427 11 6	319	2,54,980 15 1	27	50,833 3 8	..	.. .. ..	13	53,463 7 2	40	1,04,296 10 10	279	1,50,684 4 3
Vizagapatam	16	44,021 1 4	69	1,80,254 8 6	85	2,24,275 9 10	16	44,021 1 4	..	.. .. ..	1	589 14 6	17	44,610 15 10	68	1,79,664 10 0
Rajahmundry	8	5,13,178 10 11	464	14,78,057 4 4	472	19,91,235 15 3	86	4,25,049 11 8	..	.. .. ..	..	.. .. ..	86	4,25,049 11 8	386	15,66,186 3 7
Masulipatam	156	2,05,062 11 0	301	12,44,165 6 3	457	14,49,228 1 3	258	10,33,750 2 9	9	60,745 6 7	13	30,479 0 2	280	11,24,974 9 6	177	3,24,253 7 9
Guntoor	32	1,71,565 9 4	306	2,22,183 1 10	338	3,93,748 11 2	196	2,98,762 6 3	10	1,818 9 1	4	1,676 10 2	210	3,02,257 11 6	128	91,490 15 8
Nellore	17	22,295 11 9	103	4,07,246 10 7	120	4,29,542 6 4	3	506 8 6	2	1,301 15 3	13	20,506 12 0	18	22,315 3 9	102	4,07,227 2 7
Cuddapah	24	5,168 3 0	392	4,56,700 11 11	416	4,61,868 14 11	197	35,627 12 8	1	153 12 0	50	38,584 0 7	248	74,365 9 3	168	3,87,503 5 8
Bellary	5	728 9 8	313	4,99,230 0 4	318	4,99,958 10 0	41	1,04,518 4 5	4	257 11 3	21	1,282 6 9	66	1,06,058 6 5	252	3,93,900 3 7
Canara	..	.. .. ..	123	2,64,451 13 7	123	2,64,451 13 7	7	4,907 3 8	2	94 6 8	30	31,692 15 8	39	36,694 10 0	84	2,27,757 3 7
Kurnool	14	46,582 9 5	89	1,32,939 15 10	103	1,79,522 9 3	61	1,59,925 12 10	3	361 4 0	2	3,537 2 10	66	1,63,824 3 8	37	15,698 5 7
North Arcot	20	14,126 9 10	420	3,75,417 2 6	440	3,89,543 12 4	12	10,313 15 7	..	.. .. ..	13	6,882 14 3	25	17,196 13 10	415	3,72,346 14 6
Chingleput	23	59,212 0 7	441	4,50,470 11 9	464	5,09,682 12 4	103	31,616 9 0	1	848 10 6	120	1,47,559 1 7	224	1,80,024 5 1	240	3,29,658 7 3
South Arcot	4	83,074 10 5	227	7,08,454 15 8	231	7,91,529 10 1	114	3,83,578 5 11	1	43 10 3	13	1,32,912 11 5	128	5,16,534 11 7	103	2,74,994 14 6
Salem	2	4,222 4 5	473	1,52,430 10 5	475	1,56,652 14 10	114	66,797 6 8	6	2,171 2 4	13	15,829 6 6	133	84,797 15 6	342	71,854 15 4
Tanjore	..	.. .. ..	85	6,68,983 6 8	85	6,68,983 6 8	67	4,47,845 5 5	2	182 12 1	13	2,18,397 12 7	82	6,66,425 14 1	3	2,557 8 7
Malabar	5	1,647 9 4	250	2,04,486 1 11	255	2,06,133 11 3	109	63,509 11 7	20	2,483 10 6	15	19,710 4 9	144	85,703 10 10	111	1,20,430 0 5
Coimbatore	17	26,973 14 0	459	10,55,022 5 7	476	10,81,996 4 4	152	3,82,226 14 9	6	6,391 11 10	33	57,808 11 0	191	4,41,427 5 7	285	6,40,568 14 9
Madura	2	13 12 0	153	1,67,612 5 4	155	1,67,626 1 4	54	85,734 2 2	1	324 4 0	17	21,076 11 0	72	1,07,135 1 2	83	60,491 0 2
Tinnevelly	14	22,064 6 8	66	2,52,455 0 7	80	2,74,519 7 3	35	1,23,289 2 1	1	2,022 1 2	3	2,610 2 7	39	1,27,921 5 10	41	1,46,598 1 5
Civil Architect	30	40,039 9 3	613	4,08,483 5 3	643	4,48,522 14 6	218	1,97,151 3 2	205	64,395 11 1	9	4,977 11 8	432	2,66,524 9 11	211	1,81,998 4 7
Eastern Coast Canal	6	30,807 0 11	19	4,02,657 7 8	25	4,33,464 8 7	9	1,94,777 10 9	6	30,807 0 11	6	1,89,096 7 9	21	4,12,681 3 5	4	20,783 5 2
Mysore	40	25,979 7 1	105	1,78,639 13 5	145	2,04,639 4 6	49	89,914 0 4	18	13,641 6 10	32	21,791 7 9	99	1,25,346 14 11	46	79,292 5 7
Hyderabad	8	8,958 11 11	45	10,01,051 12 0	53	10,10,010 7 11	20	5,87,939 4 1	3	2,148 8 10	4	458 2 3	27	5,90,545 15 2	26	4,19,464 8 9
Saugor	8	7,123 3 4	1	38 6 11	9	7,161 10 3	..	.. .. ..	8	7,123 3 4	..	.. .. ..	8	7,123 3 4	1	38 6 11
Jaulnah	..	.. .. ..	5	764 8 10	5	764 8 10	5	764 8 10	..	.. .. ..	..	.. .. ..	5	764 8 10	..	.. .. ..
Upper Godavery	..	.. .. ..	21	1,31,257 14 6	21	1,31,257 14 6	..	.. .. ..	9	2,214 5 3	8	1,17,870 6 5	17	1,20,084 11 8	4	11,173 2 10
Garrison Engineer	..	.. .. ..	112	1,61,137 3 6	112	1,61,137 3 6	47	1,12,360 8 3	14	21,359 4 7	3	7,612 6 4	64	1,41,332 3 2	48	19,805 0 4
Trichinopoly	..	.. .. ..	151	3,61,643 14 3	151	3,61,643 14 3	37	94,293 3 7	2	901 8 5	25	94,824 1 5	64	1,90,078 13 5	87	1,71,565 0 10
Tonghoo	..	.. .. ..	1	100 0 0	1	100 0 0	..	.. .. ..	..	.. .. ..	1	100 0 0	1	100 0 0	..	.. .. ..
Total....	458	13,41,309 10 6	6,119	1,18,12,784 7 5	6,577	1,31,54,184 1 11	2,057	50,28,014 5 11	334	2,21,852 .. 9	475	12,36,330 13 1	2,816	64,86,197 3 9	3,731	66,67,986 14 2

Central Office of Public Works,
Fort Saint George,
16th December 1858.

(Signed) E. LAWFORD, Lieutenant Colonel,
Officiating Chief Engineer.

Statement shewing the Issues of Mathematical, Scientific, and Drawing Instruments to the different Districts from the 1st May 1857 to the 30th April 1858.

Names of Articles.	Arcot, North.	Arcot, South.	Bellary.	Canara.	Chingleput.	Coimbatore.	Cuddapah.	Ganjam.	Godavery.	Kistnah.	Kurnool.	Madras.	Madura.	Malabar.	Nellore.	Salem.	Tanjore.	Tinnevelly.	Trichinopoly.	Vizagapatam.	East Coast Canal.	Mysore.	Captain Collyer.	Lieutenant Scott.	H. Cleghorn, Esq.	Officer commanding Sappers and Miners Dowlaiswarm.	Total.	Remarks.
Barometer Aneroid	...	...	1	1	...	2	...	...	1	...	3	2	...	1	...	...	...	...	...	1	...	...	...	...	1	...	13	
Boards, Drawing	...	...	...	...	3	...	...	...	2	...	...	3	...	...	2	1	...	...	...	...	...	...	...	...	...	...	11	
Box Magnets, pairs in wooden case	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
Chains, Measuring with arrows	2	6	4	1	3	...	2	3	1	...	2	6	1	1	1	2	2	3	...	2	3	...	...	...	...	...	45	
Circumferenters, complete.	1	4	...	3	3	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	13	
Clinometers.	1	1	...	1	3	...	...	...	...	...	...	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	10	
Color Boxes, large.	1	3	...	...	1	...	...	2	2	...	...	...	...	...	1	1	5	1	...	...	1	...	...	...	...	...	18	
Do. Small	...	13	4	2	5	...	4	...	...	...	4	7	2	2	6	1	14	2	...	2	1	...	...	1	...	...	70	
Compasses, Prismatic	...	1	...	1	1	...	3	...	1	...	2	3	2	2	...	1	2	3	...	3	1	...	2	1	...	...	29	
Do. Beam	...	1	...	1	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
Do. Pocket	...	...	...	...	...	...	...	4	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
Do. Napier or Comprehensive.	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	4	
Do. Proportional	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
Do. Brass, fine, points 4", 5", and 6",	...	6	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	
Eidagraphs, complete	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Hallozuffill's Scales sets.	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
Levelling Instrument Y.	1	...	1	2	...	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	3	...	...	...	...	...	11	
Do. do. Troughton Do. do. Dumphy	1	3	4	...	2	...	2	1	1	...	...	1	...	1	...	1	3	1	...	2	2	...	...	...	...	...	25	
Do. do. Water	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
Lines, Log	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
Mathematical Tables (Hutton's)	1	...	...	1	1	...	...	...	...	...	...	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	7	
Do. Instrument Boxes, brass bound.	1	3	...	...	3	...	4	1	1	...	3	3	...	2	...	4	2	1	...	2	3	...	...	...	...	6	39	
Do. do. Cases, Fish Skin	1	3	4	...	3	...	...	...	...	...	2	5	2	...	...	...	9	2	...	2	...	...	...	1	...	12	46	
Do. do. do. 2nd sort	...	8	...	...	5	...	...	6	...	...	...	10	...	...	4	...	...	...	...	...	...	...	...	...	...	...	33	
Parallel rulers, Ebony	...	19	4	1	18	...	6	3	2	...	4	30	...	...	7	4	3	3	...	...	4	...	...	...	...	12	120	
Do. do. rolling, Brass	3	3	...	...	3	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	
Perambulators	...	...	...	...	2	1	1	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	7	
Pentagraphs.	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	
Plane Tables.	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Plotting scales, sets	1	4	...	...	3	...	...	...	1	...	...	5	...	...	2	2	...	...	...	...	...	...	...	...	...	...	18	

Statement shewing the Issues of Mathematical, Scientific, and Drawing Instruments to the different Districts from the 1st May 1857 to the 30th April 1858.

Names of Articles.	Arcot, North.	Arcot, South.	Bellary.	Canara.	Chingleput.	Coimbatore.	Cuddapah.	Ganjam.	Godavery.	Kistnah.	Kurnool.	Madras.	Madura.	Malabar.	Nellore.	Salem.	Tanjore.	Tinnevelly.	Trichinopoly.	Vizagapatam.	East Coast Canal.	Mysore.	Captain Collyer.	Lieutenant Scott.	H. Cleghorn, Esq.	Officer commanding Sappers and Miners.	Total.	Remarks.
Pocket sextant	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	
Protractors, Ivory	...	...	...	...	...	...	...	4	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	
Do. Circular, brass	...	1	...	1	...	...	...	...	2	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	7	
Rain Guages	...	...	...	2	4	18	...	10	...	...	2	...	2	2	1	...	...	...	2	2	...	...	...	...	...	...	45	
Rules Folding, 3 feet	...	4	...	...	3	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	10	
Scales, Marquois, sets	1	6	...	1	3	...	...	...	...	...	...	3	...	1	2	1	...	...	...	2	2	1	...	1	...	...	24	
Spare Drawing Pens, steel	...	18	...	...	12	8	...	...	...	...	...	19	...	...	4	...	...	...	...	...	...	...	...	...	...	...	61	
Squares, Optical	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
Do. T	...	...	...	...	3	...	...	...	2	...	...	4	...	...	2	1	...	...	...	...	...	...	...	...	...	...	12	
Staves sets, Levelling	3	18	8	4	4	...	6	2	2	...	...	3	...	2	2	2	6	2	...	...	6	...	...	...	...	...	70	
Straight Edges, brass, 3 feet	...	1	...	1	1	...	...	...	...	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	
Tapes, Measuring	3	12	...	4	16	...	...	...	1	...	6	1	2	1	4	1	5	...	...	...	2	2	8	2	...	...	70	
Telescopes	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Theodolites complete, 7 Inches	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Do. do. 5 do.	...	...	...	1	1	...	...	...	...	...	...	3	...	...	1	1	...	...	...	...	...	...	...	...	...	...	7	
Tracing Glasses	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	
Curves in Boxes, sets	...	...	...	...	1	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	4	
Gunter's Sliding Rules	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
Thermometers	...	...	...	...	1	2	...	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	7	

CENTRAL OFFICE OF P. W.
Fort Saint George,
16th December 1858.

(Signed) E. LAWFORD, Lieut. Colonel,
Officiating Chief Engineer.

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ment shewing the Issues of Tools, Implements, &c., to the different Districts from the 1st May 1857 to the 30th April 1858.

Names of Articles.	Arcot, North.	Arcot, South.	Bellary.	Canara.	Chingleput.	Coimbatore.	Cuddapah.	Ganjam.	Godavery.	Kistnah.	Kurnool.	Madras.	Madura.	Malabar.	Nellore.	Salem.	Tanjore.	Tinnevelly.	Trichinopoly.	Vizagapatam.	Secunderabad.	Total.	Remarks.
Anvils, Smiths	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	
Axes, Felling	...	...	...	...	...	...	...	...	...	...	...	...	25	...	...	...	...	...	...	...	...	25	
Do. Hand	...	...	...	73	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	73	
Do. Pick	...	...	...	1007	...	...	...	...	...	...	...	...	1000	...	...	...	...	...	950	...	5	2,962	
Barrows, Wheel	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	
Bellows, forge	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	4	
Blocks, wooden	...	...	72	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	80	
Crow Bars, Iron	...	...	...	62	...	...	...	...	...	...	40	...	100	...	...	...	...	...	70	...	...	272	
Files Pit Saw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	12	
Do. Hand Saw	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	12	
Hammers	...	...	...	22	...	...	...	...	...	...	...	2	...	...	...	...	...	...	27	...	...	51	
Helves for Pickaxes (spare)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	190	190	
Do. Mamoties	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70	70	
Hand Lathe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Hatchets	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	
Hooks Bill	...	...	...	104	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	104	
Jumpers	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	
Mamoties	...	...	...	707	...	...	...	...	...	...	...	...	1000	...	...	...	...	...	600	...	14	2,321	
Plates screw with Taps, large	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Do. do. small	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Priming Needles	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
Rammers, Earth	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	62	
Saws, Pit	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	
Stones, Grinding	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	2	
Shovels, Iron, Europe.	...	...	80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80	
Tools, Miners, sets	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
Do. for hand Lathe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
Vices, Iron, Bench	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
Weighing Scales.	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	
Yokes Pole, common	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	9	

CENTRAL OFFICE OF P. W.
Fort Saint George,
16th December 1858.

(Signed) E. LAWFORD, Lieut. Colonel,
Officiating Chief Engineer.

Statement shewing the Issues of Machinery to the different Districts from the 1st May 1857 to the 30th April 1858.

Names of Articles.	Arcot, North.	Arcot, South.	Bellary.	Canara.	Chingleput.	Coimbatore.	Cuddapah.	East C. Canal.	Ganjam.	Kistnah Division.	Kurnool.	Madura.	Malabar.	Nellore.	Rajahmundry.	Salem.	Tanjore.	Trichinopoly.	Tinnevelly.	Vizagapatam.	Garrison Engineer	Mint Master.	Arsenal.	Total.	Remarks.
Apparatus, Boring, sets.	...	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	3	...	...	...	...	...	...	7	
Blocks Iron single 6 Inches	2	1	6	...	2	6	...	1	1	2	1	1	...	...	...	1	...	...	1	...	...	...	...	25	
Do. do. double 6 do.	1	1	6	...	2	6	...	1	1	2	1	1	...	...	...	1	...	...	1	...	...	...	...	24	
Do. do. treble 6 do....	1	1	6	...	...	6	...	1	1	2	1	1	...	...	...	...	...	...	1	...	...	...	...	21	
Do. do. snatch 14 do.	3	1	6	...	2	6	...	2	2	4	2	2	...	...	...	...	...	...	2	...	...	...	...	32	
Circular Saw Tables, sets.	1	...	1	...	...	1	...	...	...	...	1	...	...	1	...	1	1	...	1	...	1	...	...	9	
Crabs, Iron, single	2	...	2	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	8	
Do. do. double.	...	...	1	...	1	1	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	6	
Cranes Transportable sets....	1	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	7	
Engine Steam Portable 5 horse Power...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
Jack Screws	1	1	1	...	1	2	...	1	...	2	1	...	...	1	...	...	...	...	2	...	...	...	...	13	
Machines, Brickmaking...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	4	
Mills Pug....	...	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	4	
Machines Punching and Shearing... ...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
Plate Screw with Taps, large	1	1	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
Do. do. do. do. small..	1	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
Pumps, Portable...	...	...	2	...	1	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	6	
Rails Iron Bridge of 12 feet...	5,280	5,280	...	...	...	4,992	...	...	...	3,984	3,000	...	...	22,400	...	...	...	...	4,992	...	...	...	...	49,928	Running feet.
Do. do. do. of 10 feet	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Do. do. do. of 8 feet...	...	...	...	...	...	8	...	...	...	16	...	...	...	...	...	...	...	...	8	...	...	...	...	32	
Tools, Carpenters, sets...	1	1	2	...	2	2	...	1	1	...	1	1	...	...	...	1	...	...	2	...	...	14	...	29	
Peet Machine for Compressing	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	

CENTRAL OFFICE OF P.W.
Fort Saint George.
16th December 1858.

(Signed) E. LAWFORD, Lieut. Colonel,
Officiating Chief Engineer.

FROM THE SUPERINTENDENT OF THE GOVERNMENT LITHOGRAPHIC PRESS,
Central Office of Public Works.

TO THE CHIEF ENGINEER,
Department of Public Works.

SIR,

In obedience to orders, I beg leave, very respectfully to submit, annexed, a statement of work executed at the Government Lithographic Press of the Central Office of Public Works, for the official year ending 30th April 1858.

2. The expense of Office Establishment, &c., the out-turn of the year, by the steady and regular working of from four to five Presses daily, and its valuation, are given in the memorandum at the foot of the statement; which, I humbly trust, though not so favorable as might be expected, will, nevertheless, be considered satisfactory; considering that this memo. is but the result of the first year's operations, with its many disadvantages, since the Department was extended in January 1857.

3. The *quality* of the work turned out generally, while we stand in *advance* in *colored printing* introduced during the year under review, and which has done away in several instances with the after tedious process of coloring by the hand, thereby economizing both time and expense, I shall venture to state, will be found equal, if not superior, to that turned out in the sister Presidencies.

4. Now that the Draftsmen and Printers are better up to their work, and the Department generally in a more efficient state of working order, I trust to be able, at the close of the present official year, to come forward with a comparative statement of work considerably exceeding that now submitted.

5. The *largest* size Lithographic Press in use, either in England or abroad, recently received from Europe for the use of this Department, which has been allowed to stand still since its receipt for the want of some simple mechanical means to work the very unweildy and heavy stones, will, (as these means have lately suggested themselves, and which will shortly be introduced) during the current year, be brought into effectual operation.

Most humbly and respectfully soliciting your favorable consideration, and that of the Government, with reference to my present reduced salary, and to the sacrifice of my private earnings.

Government Lithographic Press of
Central Office of Public Work,
Fort Saint George,
6th May 1858.

I beg to remain, Sir,
Ever your grateful servant,
(Signed) J. DUMPHY,
Superintendent and Manager.

Statement of work executed at the Government Lithographic Press, of the Central Office of Public Works, from the 1st May 1857 to the 30th April 1858.

For what Office.	Maps and other Drawings.		Circulars, Forms, &c.	
	Number of copies.	Number of impressions.	Number of copies.	Number of impressions.
Central Office of Public Works	9,286	11,352	88,467	79,212
District Engineers through the Central Office	...	...	6,000	2,000
Government Office, Public Department	1,340	1,712	11,800	5,860
" " Judicial "	36	36	...	...
" " Military "	2,200	736	9,050	3,925
" " Public Works "	102	102	6,600	1,300
Government Gazette Press	8,755	9,574	900	900
Government Central Museum	7,000	7,000	...	...
Military Board Office	400	400	...	...
Revenue Board Office	102	204	10,000	1,758
Adjutant General's Office	4,360	5,240	10,200	800
Town Major's Office	...	...	5,850	975
Collector of South Arcot	310	310	...	...
" of Madras	1,095	1,225	...	...
Madras University	...	...	254	254
Conservator of Forests	1,000	800	...	...
Inspector General of Hospitals	...	...	1,600	400
Office of the Commandant of Engineers	...	...	7,084	1,680
" Commander in Chief	...	...	2,100	600
Superintending Engineers of Circle	...	...	3,100	1,033
Male Asylum Press	300	300	...	...

Statement of work executed at the Government Lithographic Press, &c.

For what Office.	Maps and other Drawings.		Circulars, Forms, &c.	
	Number of copies.	Number of impressions.	Number of copies.	Number of impressions.
Madras Journal of Literature and Science	1,660	3,165	...	...
Civil Auditor's Office	...	...	3,000	475
Lieutenant Taylor's Charts for sale and for distribution	600	600	...	
Map to accompany the yearly Budget of the Madras Presidency (sold also to the Public)	500	4,500	...	...
Quarter Master General's Office	182	182	3,539	3,028
Total...	39,228	47,438	1,70,444*	1,04,200*
Average per month	3,269	3,953½	14,263¾	8,683½

No. of copies of drawings and writings together, for the year 2,09,672
No. of impressions of drawings and writings together do. 1,51,638

Memo.

	Rs.	A.	P.	Rs.	A.	P.
Cost of Office Establishment, for the year, deducting the salaries of 3 draftsmen, exclusively employed in compiling and correcting district maps, and 1 writer	18,320	0	0			
Contingent expenses incurred, during the year, in the working of the Office	518	2	4	18,868	2	4
Value of Maps and other drawings; 47,438* Impressions at 20* Rs. ₰ 100 impressions	9,487	9	7			
Value of Circulars, Forms, &c., 1,04,200* impressions, at 7* Rs. ₰ 100 impressions	7,294	0	0	16,781	9	7
Cost to Government in excess of value of work returned.				Rs. 2,086	8	9

(Signed) J. DUMPHY,
Superintendent and Manager.

6th May 1858.

* These are very reduced charges.

Memorandum on the foregoing Report to accompany narrative of the operations of the D. P. W. for the year 1857-58.

The out-turn of the Government Lithographic Press for the year 1857-58 has been as follows.

Maps and other Drawings.

No. of copies executed during the year 39,228
No. of impressions 47,438

Circulars, Forms, &c.

No. of copies executed during the year 1,70,441
No. of impressions from the stone required for the above 1,04,200

making a total of copies of drawings and writings together for the year of 2,09,672 made by means of 1,51,638 impressions.

The number of impressions differs from the number of copies, as a copy sometimes requires four or even more impressions, while at other times two or more copies are struck off one stone.

In the accompanying statement the authorities for whom work was done and the numbers of the copies of the Drawings and papers supplied to each is shewn in detail : this will shew the great utility of the Press which works for every Office which requires its services. The quality of work is gradually improving, and a great step in advance has been made by the introduction of printing *in colours* which insures accuracy at a great saving of time.

It is not easy to judge of the value of the work executed as there is no private establishment in Madras which can compete with the Government Press or in fact execute any but very inferior work. The present Superintendent had a private establishment which turned out excellent work, but he has given up private work. He has appended to the Statement already alluded to a comparison between the cost of the Government Establishment and the value of the work turned out by it—the latter is I think under-estimated, so that even in its present somewhat inexperienced state the Office has acquitted itself very well indeed.

(True copies.)
(Signed) E. LAWFORD, Lieutenant Colonel,
Officiating Chief Engineer.

No. 2. ORDER THEREON, No. 677 ; dated 23rd March 1859.

Para. 1. The Report and Statements accompanying the above letter, are designed to shew the operations of the Department of Public Works for the Official year 1857-58, as required by paras. 11 to 13 of the Rules circulated under date the 17th June 1856. The Report is a copy of the Administration Report previously submitted by the Chief Engineer to meet the requisition* of the Supreme Government.

* E. M. C., 24th Novr. 1855, Pub. No. 1497.

2. In the Budget of 1857-58 a sum of Rupees 64,19,784 was entered as the probable Expenditure that would be required to be made during the year for works of every description inclusive of Repairs, but owing to the restrictive orders of the Government of India the actual outlay has amounted to only Rupees 40,87,025, viz. Rupees 20,72,795 on account of New Works, and Rupees 20,14,230 for Repairs, the whole falling short of the Estimate by more than 23¼ lacks of Rupees.

E. M. C., 17th July 1857, No. 1372.

3. This Expenditure is shewn to have been on account of

	New Works. Rs.	Repairs. Rs.
I. Irrigation Works	4,38,108	12,70,658
II. Communications	4,96,080	5,34,757
III. Buildings	11,38,607	2,08,817
Rupees	20,72,795	20,14,230

Irrigation Works.

4. Under the first head I, the chief Expenditure incurred for the construction or extension of Irrigation Works, or the repair of existing ones, appears in the undermentioned Divisions and Districts.

	New Works. Rs.	Repairs. Rs.
Ganjam	2,712	26,278
Godavery Division	1,52,286	3,05,077
Kistnah Division	82,166	1,23,807
Nellore	30,561	1,17,747
Cuddapah	20,384	35,422
Bellary	1,889	80,182
Chingleput	5,828	41,445
North Arcot	73,121	34,920
South Arcot	13,131	70,981
Tanjore	3,479	1,65,965
Trichinopoly	25,492	76,681
Madura	185	52,370
Tinnevelly	11,036	50,773
Coimbatore	14,426	29,366
Salem	803	42,128

Communications.

5. The second head No. II comprizes the following communications.

	New Works. Rs.	Repairs. Rs.
Roads and Bridges	4,01,287	5,06,104
Navigable Canals	64,879	22,493
Ports and Harbours	29,142	3,396
Ferry Boats	772	2,764
Total	4,96,080	5,34,757

6. The great bulk of the Expenditure was on account of Roads and Bridges, and that only will be noticed.

	New Works. Rs.	Repairs. Rs.
Ganjam	35,304	18,992
Nellore	26,061	40,910
Bellary	4,095	50,826
Kurnool	38,853	11,439
Chingleput	46,191	86,664
North Arcot	56,263	46,538
South Arcot	25,787	37,568
Tanjore	30,903	7,804
Coimbatore	16,169	38,644
Canara	17,501	40,204

Buildings.

7. Under the head of Buildings No. III the largest disbursements appear in Bellary, Chingleput, Coimbatore, Madras and Hyderabad. The classification of the total Expenditure for Buildings is as follows:

	New Works.	Repairs.
	Rs.	Rs.
Military...	9,84,615	1,18,926
Revenue...	21,977	27,494
Public...	50,966	82,954
Judicial...	57,044	21,861
Ecclesiastical...	7,093	6,607
Marine...	13,501	686
Educational...	2,814	289
	11,38,607	2,08,817

8. The Administration Report from para. 15, notices the operations of the Department in each of the Divisions and Districts, and puts forward prominently those works of any importance that have engaged the attention of the Engineer Officers. This part of the subject does not call for much observation. The restrictive orders of the Government of India already adverted to have greatly narrowed the operations of the Department, and as a consequence, left the Engineer Officers little else to attend to than the repair and maintenance of existing works, and the continuation of some works already in progress; or as expressed in para. 5 of Colonel Lawford's letter of the 16th December "no new works of any magnitude were carried on during the year, whose effect on the improvement of the country deserves special mention." Looking to the Statements given above, it is seen that a large share of attention has been devoted to the two kinds of works most conducive to the benefit of the country, viz. Irrigation Works and Roads and Bridges. As regards the first, it is observed, that in the Godavery and Kistnah Divisions, and in the Districts of Nellore, Cuddapah, North and South Arcot, Trichinopoly, Tinnevelly and Coimbatore, there has been considerable expenditure for the improvement or extension of works, as well as for repairs; while in the Districts of Ganjam, Bellary, Chingleput, Tanjore, Madura and Salem, the outlay was chiefly, if not almost wholly, for repairs.

Irrigation Works.

GODAVERY DIVISION.

	Rs.
New Works,...	1,52,286
Repairs...	3,05,077
	4,57,363

P. 24.

9. In the Godavery Division where the Expenditure has exceeded 4½ lacks, the principal works were the Weyaroo Canal; the Samulcottah and Toonee Canal; the Samulcottah and Cocanada Canal; some Irrigation and Drainage Channels, and other works connected with the Godavery Annicut. The large expenditure in repairs was chiefly for the repair of the breach in the Annicut.

KISTNAH DIVISION.

	Rs.
New Works ...	82,166
Repairs ...	1,23,807
	2,05,973

P. 37.

10. In the Kistnah Division the principal works were the Northern and Southern high level Channels, and the Channel from the Poolairoo to the Canal Basin at Masulipatam, besides others of less note. The Expenditure on Repairs was for Irrigation Works, connected chiefly with the extension and developement of the system dependent on the Kistnah Annicut.

P. 64.

P. 65.

11. The Hurricane of November 1857 did much injury to the works in Nellore and Cuddapah, and led to large expenditure in both Districts for Repairs. The great bulk of the expenditure in North Arcot was incurred on account of the Palar Annicut, and its subsidiary works, and for repairs to other works. The expenditure in other Districts does not call for special notice and though large in many instances has been necessitated by the circumstances of the season, as in the case of Tanjore where the Irrigation Works sustained considerable injury from the Monsoon of October 1857 and led to an expenditure which in all amounted to Rupees 1,65,965; as also in Trichinopoly where the rains of November and December 1857, caused considerable damage.

P. 73.

12. The Paumbem* Channel was further improved during the year by the removal of 7,120 cubic feet of stone and of 9,285 cubic feet of sand, at a total expenditure of 9,104 Rupees; and it is stated that the Channel with its rapidly increasing traffic is slowly but steadily advancing to the attainment of the general depth of thirteen feet shewn to be practicable and strongly recommended by Colonel A. Cotton in 1854.

Roads.

13. The communications in the Provinces shared in the damages sustained by the Irrigation Works, and large disbursements were made for their repair. The expenditure on Roads and Bridges has been general, but the largest appears in Chingleput and North Arcot, the amount expended in each exceeding, both for New Works and Repairs, a lack of Rupees.

Buildings.

P. 51.

14. On Buildings the chief expenditure is on account of those appertaining to the Army, and comprizes several Military Works at Saint Thomas' Mount; Rupees 3,15,994 for the Jackatalla Barracks on the Neilgherries; and Rupees 3,60,570 for the Hyderabad Barracks.

Revenue from Cochrane's Canal.

15. The transactions connected with the traffic from the Northward by Cochrane's Canal for the year 1857-58 are contained in the Tables lettered A. to E. and exhibit in comparison with 1856-57, a large increase in Tonnage and Toll.

	Boats.	Tons.	Toll.	
			Rs.	A.
1856-57...	9,287	1,05,467½	26,366	14
1857-58...	9,324	1,29,643	32,410	12
Increase in 1857-58...	37	24,175½	6,043	14

The chief items which contributed to the traffic of the year were the following:

	Boats.	Tons.	Toll.	
			Rs.	A.
Chillies...	180	2,239	559	12
Firewood...	1,341	27,905	6,976	4
Jungle sticks...	14	200	50	0
Passengers...	2,002	2,062	515	8
Paddy...	49	624	156	0
Red-wood...	25	605	151	4
Shells...	1,473	23,142	5,785	8
Salt-fish...	228	469	117	4
Salt...	2,415	54,585	13,646	4
Wood...	701	14,524	3,631	0
	8,428	1,26,315	31,588	12
Other commodities.				
	9,324	1,29,643	32,410	12

Traffic Returns of different Channels.

16. The Returns of the traffic on the Godavery and Kistnah Channels, and on the Eastern Coast Canal which form No. 3 of the accompaniment of Colonel Lawford's letter of the 16th December 1858, will be published in the Official Gazette for general information.

Audit of Bills in the Central Office.

Cons. 25th Feby. 1859, Nos. 110-111.

17. The Statement of the Audit of Bills as given in para. 6 of the same letter, shews a balance remaining unadjusted on the 1st May 1858 of 3,731 Bills to the amount of Rupees 66,67,986-14-2. It is not necessary to notice this part of the subject further, as from the Report of Audit received from the Central Office, dated 7th February 1859, it appears that all Bills previous to 1st February 1859 had then been adjusted, and that there was no balance remaining on that date.

* Navigation.

Fort Saint George, Public Works Consultation of 1st April 1859.

Operations of the Lithographic Department.

Enclosure No. 7.

18. The Statement to exhibit the work of the Lithographic Department shews that, between the 1st May 1857 and 30th of April 1858 the number of copies and of impressions struck off and supplied to Public Offices was as follows:

	Copies.	Impressions.
Maps and Drawing	39,228	47,438
Circulars, Forms, &c.	1,70,444	1,04,200
	2,09,672	1,51,638.

The cost of this Press is represented at Rupees 18,868 and the value of the work, estimated at rates which the Officiating Chief Engineer considers rather low, at Rupees 16,781. Colonel Lawford thinks from this result that the Office has acquitted itself very well, an opinion in which the Government are disposed to join him.

19. In his letter of the 13th October 1858 Colonel Lawford observed, first, that the Government of India (Extract Minutes Consultation, 24th November 1855) require an Administration Report to be submitted annually in the month of June; secondly, that the Rules 11 to 13 circulated with Extract Minutes Consultation, 17th June 1856 require the submission of an Annual Report on the operations of the Department to the Local Government, which Report, amongst other points of information, is required to contain details of the results of improvements; thirdly, that a Progress Report is also submitted to the Government of India under orders dated 9th February and 7th May 1855. Colonel Lawford states that Rules 11 to 13 of the 17th June 1856 enjoining an Annual Report on the operations of the Department and on the results of improvements, are literally complied with by the Administration and Progress Reports sent for transmission to the Government of India, and he suggests that the "Annual Report" required by the three Rules be discontinued, and that in lieu of it the "Annual Progress Report" may be considered as the great Report of the Department, and that Reports on the issues of Stores and Instruments and on the rates paid for labor, &c. be separately submitted as distinct documents, or as Supplements to the Progress Report.

20. The Government were not willing at the time to disturb existing arrangements until they had the Report previously called for by them respecting the applicability of the Bengal Code of Public Works to this Presidency; but apprehensive that the question may involve delay, Colonel Lawford has submitted a copy of the Administration Report already prepared for the Government of India as a substitute for the Report of Operations required by the Rules of the 17th June 1856 merely completing it with Statements containing the further information required by those Rules.

21. This course, though its express object is to save time and trouble, is attended with some confusion and inconvenience. The requirements of the Government of India and of the Local Government are each for a specific object. The Supreme Government require a Report of Proceedings in the Public Works and other Departments, for the purpose of compiling a General Report of the Administration of the Country; whereas the Local Government require an Annual Report in order to their being kept informed of the actual working of the department. The Government think that these two distinct objects should be maintained; and that by proper arrangements this may be done without difficulty and without much additional labor. They would call the attention of the Central Office to their Order of 24th November 1855, No. 1497 on the letter from the India Government requiring these Administration Reports. It was there directed "that the Reports should be as brief as is compatible with perspicuity while they must at "the same time present distinctly all facts of importance and which are likely to be interesting "to general readers." The Report now reviewed, with some improvement would fully answer the purposes of the Annual Report on the operations of the Department required by the Local Government; but it does not meet the orders for brevity and perspicuity specially enjoined in the case of the Administration Report.

1856

E. M. C. 19th June 1855 No. 274.
do. 26th do. " 1055.

The best course perhaps would be to prepare first the Annual Report for this Government, of the Operations of the Department, and then to condense from that document the Administration Report of the Department, which would necessarily be much more brief.

Ordered that 300 Copies of the Report together with this Review be printed as a Selection for distribution.

(Signed) J. D. BOURDILLON,
Secretary to Government.

No. 6359

Central Office of P. W.
Fort Saint George
16th December 1858

From
The Officiating Chief Engineer

To
The Secretary
to Government D. P. W.

Sir

Adverting to Extract Minutes of Consultation 11th November 1858, No. 2371, and the possible delay that may occur in deciding on the question of the applicability of the Bengal Code of Public Works to this Presidency, reported on in my letters of the 30th November and 10th December 1858, I have the honor to submit herewith the documents constituting the Annual Report on the operations of the Department required by paras 11. 12. and 13 of the orders at page 318 of the Circular Order Book. –

No. 5886
No. 6199

2. Enclosure No. 1 which was submitted by Colonel Faber on the 16th June last contains the report on the executive operations of the Department contemplated in para 11. –

3 Enclosure No. 2 supplies the information required in regard to the traffic of the

East

Extract Minutes of Consultation
22nd August 1857 No. 1621.

1856/57	Rupees	26,366: 14
1857/58	"	32,410: 12
Increase		6,043: 14

East Coast Canal by the orders noted in the Margin. It consists of five Tables marked from **A** to **E**. Table **A** gives a comparative Statement of the Toll collections during the past two years, and it will be seen from it that there has been an increase of 13,339 tons of miscellaneous produce paying a toll of Rupees 3334 12; and of 10,836½ tons of Salt on which Rupees 2709: 2 were levied. Table **B** gives a detailed account of the tonnage of each sort of goods that arrived at the Basin during the Official Years 1856/57 and 1857/58, and the amount of toll accrued on it. It will be observed from this Statement also that there has been a large increase in the whole in the different Species of Cargo carried on the Canal. Table **C** shews the Villages which make use of the Canal, their produce, and the tolls they pay, from which it will be perceived that the Boats which came from the new cut between Sheeharicottah and Doogoorauzpatam have increased from 169 in 1856/57 carrying 2,895 Tons to 390 in 1857/58 carrying 6,362 tons with an increased toll of Rupees 866: 12. Table **D**. shews the number of boats registered in the Canal Books of each dimension, and hence it appears that the number of new boats built in the past Official Year was 54 having a tonnage of 849. Table **E** exhibits the amount of monthly toll collected on miscellaneous produce and Salt, giving Rupees 32,410: 12 as the collections of the entire Year.

Vide page 330
Circular Order Book

4 Enclosure No. 3 is a register of Boats and traffic that passed the Shediancoopam lock on Cochrane's Canal, and other locks on the Godavery and Kistnah Channels. It is prepared in accordance with the order of Government of 5th July 1856 No. 1110.

Vide para 1

5. As regards the results of improvements which are required to be reported on in para 12 of the Section of the Code already quoted, I beg to state that no new works of any magnitude have been carried on during the past year whose effect on the improvement of the Country deserves special mention. The money results of works formerly constructed are detailed in the Statement of remunerative works, forming an Appendix to the Annual Progress Report, and a Copy of this document is herewith transmitted as Enclosure No. 4, for the sake of rendering the present report complete.

Enclosure

6. Enclosure No. 5 is a Statement of Audit in the Central Office for the past Official Year, and exhibits the following results.—

	No.	Amount		
Bills on hand on 1st May 1857	438	13,41,397	10	6
Received during the Official Year 1857/58	6,119	118,12,786	7	5
Total	6,557	131,54,184	1	11
Passed by the Chief Engineer	2,037	50,28,014	5	11
Recommended for the sanction of Government	334	2,21,852	.	9
Examined and returned for explanation or correction	475	12,36,330	13	1
Total disposed of	2,846	64,86,197	3	9
Balance remaining on hand on 1st May 1858	3731	66,67,986	14	2

7. It will be perceived that the balance remaining on hand on 1st May 1858 was much greater than that on 1st May 1857. This is owing to the very large number of Bills received in the year under review amounting to no less than 118½ lacs of Rupees, appertaining chiefly to the unpassed expenditure up to 30th April 1856

written

written off in the Books of the Collectors and Accountant General. The Government have been informed by the report noted in the margin that by the strenuous exertions made in the current year, the whole of the above arrears has been cleared off.—

dated 15th Decr 1858
No. 1323.

8. Agreeably to the observations contained in Extract Minutes of Consultation 3rd May 1858 No. 830, the classified synopsis of passed expenditure, and the List of Bills exceeding 5,000 Rupees each heretofore entered in the Annual Reports have been omitted.—

para 25

9. Enclosure No. 6 is a Statement of the issues of Mathematical and Surveying Instruments as well as of machinery and tools issued to the different Districts during the year under report. The issues reported in it have been made from time to time on Indents forwarded by the District Engineers, and have been regulated by the exigencies of the service. They do not therefore call for any particular remark.—

The

10. The only point remaining to be noticed is the subject of rates and prices adverted to in para: 13 of the 1st Section of the Code; The returns received from the District Engineers do not enable me, I am sorry to say, to lay any valuable information before Government respecting this enquiry, and it is quite evident that this subject can only be properly dealt with after a careful study of the Bills of actual charges in general, for no sets of rates arbitrarily fixed for a District without reference to the extent and position of the works can be depended on, and I can only hold out the hope of being able to furnish a reliable opinion of the moderation or otherwise of the cost of public works after a further period of scrutiny into the Accounts. I must therefore reserve it for a future special report as already intimated in para: 7 of my letter of the 30th October last No. 5029 —

Page 318
Circular order Book.

11. Finally, in compliance with a wish recorded by Colonel Faber previous to his departure on Sick leave, I beg to forward for the information of Government Copy of a report by the Superintendent of the

Enc. No 7.

the Lithographic Press attached to the Central Office, on the work performed in that Department during the year 1857/58, and of a Memorandum prepared thereon under the orders of the Chief Engineer —

Central Office of P.W.
Fort Saint George
16th December 1858.

I have the honor to be,
Sir,
Your most obedient Servant
E. Lawford Lieut Colonel
Officiating Chief Engineer

Exd A.H.

From the Offg Chief Engr of 15 Dec/58 No. 308 in Cons. 1st Feby/59
From Do of 10 Dec/58 No. 300 in Cons. 1st
From Do of 30 Nov/58 No. 290 in Cons. 18th Jany/59
Cons. 9 Decr/58 No 12-13
— 25 Augt/57 — 30 & 31
— 4 May — 58 76-78
— 8 July/58 — 66-57.

No. 1.

12th March/59 R.16

Public Works 1858 Department
Dd to Cons ~~[illegible]~~ 1st April/59.
No. 3079.

From
The Officiating Chief Engineer

To
The Secretary
to Government D. P. W.

E No. 677: 23d March/59.
Dated 16th }
Received 17th } December 1858
S. P. No. 677 — 23d March/59 No. 6359
Inclo. 2

Submits, with advertance to Extract Minutes of Consultation 11th November 1858 No. 2371 and the possible delay that may occur in deciding on the question of the applicability of the Bengal Code of Public Works to this Presidency certain documents constituting the Annual Report on the operations of the Department as required by paras 11. 12 and 13 of the order at page 318 of the Circular Order Book —

Central Office of P. W.
Fort Saint George
14th June 1858

63

No. 822 A

From
The Chief Engineer

To
The Chief Secretary
to Government

Sir,

The retrospective administration narrative of the Madras Public Works, which is now due for 1857/58, as required by the orders dated Fort William, 21st September 1855, has been influenced so largely by the still prevailing political convulsions of the North Western parts of the Anglo-Indian Empire, that although the tranquillity of the Madras Presidency can scarcely be said to have been itself disturbed, there is not a single branch of Public Works report free from the deplorably injurious results of the wide spread rebellion which first broke out but a few days after the commencement of the Official Year whose proceedings I am now to pass under condensed review for the information of the Right Honorable the Governor in Council and for transmission to the Government of India.

Extract Minutes of Consultation No. 1497 [illegible] November 1857.

The

2 The discouraging difference between prospective expectation or promise and actual performance which has so curiously attached itself as an inseparable attendant of the D. P. W. ever since its recent comprehensive reform and re-organization seemed not unlikely to be partially suspended, when the season of 1857/58 set in on the 1st May.—

3. There appeared to be good reason in the early part of last year for expecting a less rigorous restriction in the approaching season, notwithstanding that the allotment of only 22 lacs for the improvements of 1856/57 had fallen so far below the previous anticipations; and in the meanwhile matters had been gradually settling generally down under the newly formed professional Executive, Tanjore alone continuing to form the exception of P. W. management being as of old by the Revenue Officers of the District.—

4 So early as the 12th March 1857 the orders of the Madras Government on the Budget for 1857/58 were circulated to the whole of the Officers in the Mofussil; greatly increased facilities were thereby created for the receipt of public funds from the District Treasuries, and with a Budget List No 2 amounting

to—

to Rupees 37,46,292 and with No 3 for repairs reaching a total of 21,83,442, thus giving an aggregate of Rupees 59,29,734 available for actual expenditure and distributed moreover with an equality going far to redress the previous practice of favoring certain special Districts, it must be admitted, that, however much the prospective operations on an immediate outlay of about 60 lacs of Rupees might fall short of the Executive Capabilities, and still more of the actual wants of the Southern Presidency, yet that no such fair and encouraging opportunity of progress had ever hitherto presented itself to the Madras D. P. W.

Extract Minutes of Consultation No 861 dated 12th March 1857.

5 Profiting then by the useful interval so considerately and wisely bestowed by Government between the 12th of March and 1st of May 1857 many District Engineers in full reliance on the conclusive nature of their instructions had completed all preliminary arrangements necessary for actual operations being vigorously set on foot at day break on the very first day of the season. It must however now be the irksome future scope of this paper to set forth the chief causes that have unhappily combined to nullify more encouraging expectations of progress, general maintenance, and improvement than any former Departmental conjuncture.

By

6. By far the most influential circumstances to be enumerated under this view are the retrenchment* of the expenditure, and the sweeping reduction of P. W. Establishment, rendered unavoidable by the mutinies. The former was cut down from Rupees 64,19,784 to 38 lacs on all kinds of Public Works and the latter was reduced by nearly 25 per cent of its entire strength, or in salaries from 16,01,456 Rupees to 12,60,810 Rupees per annum. By these means the actual operations of the year have of course materially suffered having in fact been strictly confined to military Works, and to some few others of an indisputably emergent character.

*Vide estimates of [illegible] No 1372 dated 9th July 1857.

• [illegible] Gazette [illegible] 15 July 1857.

7. But the foregoing restrictions thus imposed have been found practically impossible as regards works of irrigation for upon their due maintenance, a very great portion of the land revenue of the Madras Presidency is dependent. The damage caused by the periodical rains, and the mischief inflicted by a Cyclone which visited and devastated parts of Nellore and Cuddapah on the 2nd November 1857 rendered it absolutely necessary to relax the restriction in the first instance in favor of only a few Districts but ultimately in almost everyone, so that the original sum allotted* for repairs of hydraulic works has been fairly expended and probably even exceeded. It is to be remembered that the reservoir which supplies water for irrigation owes its existence in most cases, to a simple weir or dam of masonry or of earth thrown across some mountain stream or channel

*[illegible] No 5 [illegible] 1857 [illegible] 1377316

and

and that by every monsoon, sundry injuries are more or less inflicted which unless immediately repaired seriously impair the performance of its function in the ensuing season. Hence of all description of repairs those to irrigation works are of the most urgent character and they cannot be postponed without generally admitted injustice to the vested rights of land holders and without serious though smaller injury to the Government Revenue.

8. Again amongst the minor yet not to be omitted causes contributing to retard operations may be mentioned, 1st an indisputable general rise of prices for both materials and labour throughout the Presidency, attributable 1st partly to the demands created by the Railway, 2ndly partly to the impetus given some three years ago to Public Works generally, 3rdly partly to the locally high prices of grain, and lastly partly perhaps to the gradual modification everywhere of material value brought about by the vastly increased amount of the precious metals in circulation by the gold discoveries and by the large introduction to every place from California, and by trade from the Australasian

colonies during the last 8 or 9 years, thus disturbing first in Europe and now in Asia the relation between gold and its former representative value of goods and labour. A generally alleged want of cooperation of the subordinate Revenue Officials with those of the Department Public Works, whereby the latter, new to their executive ranges, and unacquainted with their resources have to encounter highly formidable obstacles in procuring materials and labour unless indeed at high prices and after much lapse of valuable time, the novel and exceeding insecurity attending the local transport and remittance of specie from one place to another, has also operated in its measure to greater or less delay according to circumstances. Formerly money was sent by Tahsildars under an escort and in the custody of police or taluk peons, who known to heads of villages as in authority were both readily protected and expedited in their journey; whilst now on the contrary the single lascar attached to the Executive Officer or Subordinate is the sole custodier of treasure, and he altogether unknown to the village authorities is left to his own devices so that in not a few instances money thus carelessly guarded or altogether unprotected either has been dishonestly made away, or allegations of robbery are confidently put forth to the inferential establishment of inadequate protection being the prevailing opinion. However, it is to be hoped, that as the Officers of the Department and their Servants become

better

better known to the people within their respective ranges, the village authorities will no longer fail to pass specie forward from limit to limit in safety. Perhaps also the Government may hereafter reconsider the present orders, which, based on the independence of the D. P. W. of all Governmental assistance, rule, that funds whether for work peoples' wages, or for salaries of Officers, shall be at the responsibility of the District Engineer from moment of Treasury issue and in transitu to place of disbursement.

9. The Extract Minutes of Consultation 461 of 12th March gave the subjoined figured Statement as applicable for the operations of 1857/58 Viz:

	List No. 1	List No. 2	Repairs	Total
Irrigation Works	1,65000	10,82,226	12,77,316	25,24,542
Communications	3,02,050	19,99,388	7,18,958	30,20,396
Buildings	23,000	6,64,678	1,87,168	8,74,846
Total	4,90,050	37,46,292	21,83,442	64,19,784

making thus a grand total of Rupees 64,19,784 exclusive of the Mysore and Hyderabad Military works, for which a separate provision was made as follows including repairs×

× Letter to Government of India No. 560, 27th March 1857.

Mysore	Rupees	105,000
Hyderabad	"	339,887
	Total	444,887

10 But the despatch of the Government of India dated 3rd July 1857 No. 3265 cut the above expenditure down to 30,00,000 Rupees in the aggregate Vizt.

Vizt. No. 1.	Salem Jail	20,000
" " 2.	Military Works &c.	4,47,075
	Buildings	65,293
	Municipal and sanitary improvements	34,810
	Irrigation	1,10,000
	Communications	6,03,000
No. 3	Repairs of all Kinds	14,17,822
	Emergent works	2,10,113
	Secunderabad Barracks	3,39,887
	Bangalore "	2,05,000
	Total	30,00,000

11 Thus by the financial demands of the Empire generally was necessitated the stoppage of many works which had been commenced during the brief and fallacious interval adverted to in para 5 at the beginning of the Official Year, and thus also were arrested, many others that had long been under prosecution on previous sanctions. –

12 The total expenditure of the Year under all restrictions, and difficulties entailed upon this Presidency by the precarious position of the year's Revenue in the Upper Provinces may be reckoned at Rupees 40,87,025 for new works and repairs, namely. –

For Irrigation Works	4,38,108
Communications	4,96,080
Buildings	11,38,607
Total Rupees	20,72,795

and for repairs under the same heads Vizt.

For Irrigation Works	12,70,656
Communications	5,34,757
Buildings	2,08,817
Total Rupees	20,14,230

thus giving a grand total of Rupees 40,87,025

13 A more detailed and classified Synopsis of the expenditure is given agreeably to the orders of Government in the subjoined Statement, from which it will be perceived that the limit on the aggregate outlay fixed by the Government of India has been but very

slightly exceeded although in "repairs" it has been found quite impracticable for reasons already assigned to restrain the cost of making good dilapidations and damages within the prescribed margin; and if the present were not rather a record of what has than of what ought to have been performed, I should have availed myself of this, as of every other occasion, to expose the erroneous principle of parsimonious maintenance of the numerous Hydraulic Constructions established for the artificial irrigation of rice and cane cultivation.

Expenditure

I Expenditure on New Works during the Year 1857/58.

		Communications				Buildings							
	Irrigation Works	Roads and Bridges	Navigable Canals	Ports and Harbours	Ferry Boats	Military	Revenue	Public	Judicial	Ecclesiastical	Marine	Educational	Total
Ganjam	[illegible]	35364	6	383	240	476	2153	3784	167	175	.	.	45450
Vizagapatam	.	4322	.	"	"	5646	2650	4976	.	297	220	"	18111
Godavery Division	[illegible]	7264	19895	20199	"	17117	.	63	579	488	734	4	214569
Kistnah Division	[illegible]	11844	"	.	402	4107	.	9800	104	10	143	"	113656
Nellore	[illegible]	26061	"	.	.	1600	538	3687	356	"	"	.	62803
Cuddapah	[illegible]	19182	"	.	.	3055	775	3507	892	.	.	"	47745
Bellary	[illegible]	4095	.	.	.	39267	1037	245	87	.	"	.	46620
Kurnool	.	38853	.	"	.	.	4	452	"	"	.	"	39309
Chingleput	[illegible]	46191	337	.	"	64361	2402	4	934	1789	.	.	[illegible]
North Arcot	[illegible]	51263	"	.	"	80	300	347	980	"	.	.	131491
South Arcot	[illegible]	25787	"	2170	"	173	"	30	52	"	"	.	41973
Tanjore	5479	36913	1858	1942	"	"	243	"	1238	"	"	.	44163
Trichinopoly	24492	6053	.	"	"	18380	"	.	.	"	"	.	48925
Madura	195	11827	9103	.	.	"	2429	60	.	"	"	5	23619
Tinnevelly	11036	8103	"	"	"	143	946	533	.	.	.	"	20761
Coimbatore	13428	11169	.	"	"	315994	1402	5477	1187	702	"	2795	329152
Salem	803	11892	"	"	.	3972	1069	59	23334	"	.	"	43928
Canara	.	17501	.	278	.	170	244	"	455	16	54	.	18718
Malabar	609	17131	"	"	"	1653	111	42	314	90	1056	"	22996
						1203	.	15716	26522	886	"	.	44327
Madras, Interior [illegible]	"	.	"	.	.	44910	4975	1136	"	"	11094	"	71470
Madras, [illegible]	.	25	.	4470	"								24957
East Coast Canal	:	1257	22160	.	.	.	.	"	"	.	"		360570
Hyderabad	.	.	.	.	.	360570	"	"	.	.	"		94186
Mysore	.	200	.	"	"	91738	.	10	.	2250	.	"	
Travancore	.	.	.	"	.	.	"	"	.	"	.	"	
Total Rupees	433108	401787	64879	24142	772	184615	21977	50966	57041	7693	13301	[illegible]	2072795

II Expenditure on Repairs during the Year 1857/58.

	Communications					Buildings							
	Irrigation Works	Roads and Bridges	Navigable Canals	Ports and Harbours	Ferry Boats	Military	Revenue	Public	Judicial	Ecclesiastical	[illegible]	[illegible]	[illegible]
Ganjam	26,278	18,992	"	"	212	1,318	5,918	193	281	350			53,642
Vizagapatam	11,283	1,009	"	"	1,066	1,033	2,065	559	12	277	20		17,434
Godavery Division	3,05,077	1,555	10,672	46	834	1,251	459	241	1,474	"			[illegible]
Kistnah Division	1,23,807	19,244	120	"	"	1,220	577	151	378	2,217	100	"	[illegible]
Nellore	47,747	40,910	"	"	112	52	455	706	49	113	2		1,10,766
Cuddapah	35,322	24,017	"	"		569	1,174	546	50	"	"	"	61,766
Bellary	89,182	50,826	"	"	"	7,968	1,371	576	1,110	110			[illegible]
Kurnool	5,763	11,439	"	"	"	839	519	285	679	"			[illegible]
Chingleput	41,445	86,664	"	"	223	17,365	537	1,354	543	1,087			[illegible]
North Arcot	34,720	46,538	"	"	"	3,523	160	133	489	258	"		86,062
South Arcot	19,781	37,568					485	702	916				1,19,6[illegible]2
Tanjore	[illegible]	7,904	2,560	32	317	"	207	378	282	"	356	20	[illegible]
Trichinopoly	71,581	24,121	"	"	"	2,217	237	"	159	"	"		1,03,4[illegible]
Madura	[illegible]	2,104	"	"		1,618	291	281	5				56,449
Tinnevelly	50,773	4,979	"	"		875	145	65	"	141	"		[illegible]968
Coimbatore	24,366	38,644		"	"	649	483	1,827	230	18	"		71,417
Salem	42,128	20,338				"	944	529	317	"			64,226
Canara		46,204				1,898	4,014	1,759	448	71			[illegible]94
Malabar	468	18,157	570			1,591	1,773	3,024	438	258	228		[illegible]
Madras Civil Architect	"	8,469				6,932	"	16,522	12,991	648	"	[illegible]	[illegible]
Madras Garrison Engineer		2,472		2,701	"	50,412	5,275	3,049	"	482	"		73,552
East Coast Canal	"		8,571	"		"			"				8,571
Hyderabad	"		"		"	812							812
Mysore	"	"	"			1,229	"		"	4		"	1,233
Jaulnah	"	"	"			5	"	"		3	"		8
Total Rupees	12,70,656	56,104	21,493	3,396	2,764	1,18,926	27,494	32,954	21,361	1,867	686	289	20,14,230

Para 12 Extract Minutes of Consultation № 30. 3rd May 1858.

14 Such general observations and Statements as are requisite having been thus submitted, I now have to report on the principal local operations carried on in each District, keeping carefully in view the recent special instructions of Government.

Ganjam.

15 The entire Ganjam expenditure of Rupees 99,092 is broken into Rupees 45,450 for new works and Rupees 53,642 for repairs. The former principally comprises roads and Bridges, the following being the most prominent, namely.

	Expenditure during the year.
Berhampore and Russelcondah road	5,064
Completing the Aska Bridge	2,725
Chicacole and Calingapatam road	9,011
Nursimpetta and Calingapatam road	4,871
Remetalling Berhampore and Aska road	4,684

16 The July restrictive orders arrested the further expenditure most injuriously but unavoidably, on the above highly useful improvements, the cutting, as above cited for the most part having taken place previously, no District is more highly susceptible of development than Ganjam and the Rupees 26,278 spent on

Repairing irrigational constructions are believed to have effected a measure of benefit out of all proportion with the actual expense. Rupees 18,992 have been spent on repairing roads, Rupees 5913 on Revenue Buildings and Rupees 1318 on Military Building Repairs. Large Annual repairs for many future years are a necessity for this Province. —

Vizagapatam

17 Ten works of importance have been carried on in Vizagapatam, the expenditure on new works being only Rupees 1811 and on repairs Rupees 17434 making a total of Rupees [illegible]5545 for 1857/58. The Electric telegraph line between [illegible] and Chicacole on which Rupees 4979 were expended, and some temporary bridges on Trunk Road No. 6 between [illegible] and Chicacole are the specialities of the year. —

18. The Custom House at Bimlipatam and new Mess Room to the Barracks at Vizagapatam were completed out of the amount above stated. The Custom House at Vizagapatam commenced in the early part of the year was arrested in July after an expenditure of Rupees 1700, which with

with proper activity might most easily have reached the limit of Rupees 5610 necessary for the completion of the structure. The District Engineer loudly complains of the absence of good understanding between the Subordinates of the Revenue and Public Work Departments, and observes that progress is likely to be much impeded thereby. Lieutenant Virtue lastly further reports that prices of materials and labour and that rates of wages are greatly on the increase in Vizagapatam. —

Godavery Division

19. Owing to pecuniary restriction, attention has principally been directed to conservancy of works already constructed, and to increase of their efficiency. The distribution of water from the Godavery project has been more minutely carried out and with much success during the past year.

20. These improvements for several years in Rajahmundry have had their natural effect on the labor market of the District, for the great extension of cultivation throughout the Delta and the increased facilities for transport have so reduced the number of labourers that the Department no longer command the same supply

it formerly did with ease and notwithstanding that the departmental rate of wages has been raised fully 30 per Cent, serious difficulty is still encountered and a further rise of wages is to be anticipated as the only condition of a full labor supply. —

21 The season of 1857/58 has been rendered specially notable in Rajahmundry by the unexpected Catastrophe of a breach in the Mussoor branch of that vast work, to which the Delta of the Godavery owes its chief prosperity. The partial failure of the dam which forms the key of the comprehensive Project for a combined system of irrigation and navigation hitherto without parallel in this or any other Country was calculated at first sight to undermine all that trust hitherto so confidently reposed in the permanence and absolute security of this gigantic work, and in the soundness of the constructive principles on which it has been built. But it is not to be expected that so large and remunerative a work can have an immunity from the risks besetting all human enterprize, and the celebrated Projector Colonel Arthur Cotton in his Report on the accident dated Madras 14th January 1858 drawn up after his return from

personally directing the operations of repair, succeeds in shewing very clearly at what cost of precautions, the safety of the Godavery dam can be placed beyond all risk of danger. Moreover the breach was closed in a temporary manner within six weeks from the date of its occurrence; and the accident having providentially occurred at the time when the crops were either already ripe or nearly so, no loss has resulted except of some Sugar Cane cultivation. The total cost of repairing the accident is estimated at 60,000 Rupees or about 7 Per Cent of the first cost of the work. —

22 The expenditure on new works during the year has been as follows. —

Irrigation works	152,286
Communications including	
Canals	48,358
Buildings	13,925
Total	214,569

The

23 The principal works are the following

	Expenditure
Towing path to the Nagarum aqueduct	4344
Eastern Delta works	6,852
Widening the Samulcottah Channel	6,852
Central Delta works	14,138
Irrigation and drainage Channels in Brecavole and Nagaram Talooks	10,008
Samulcottah and Toonee Canal	12,633
Widening Palcole channel	11,688
Samulcottah and Cocanada Canal	17,060
Nagarum Aqueduct and Channels	4,201
Coringa harbour	7,983
Cocanada harbour	5,996
Apparow Canal	6,741
Weyaroo Canal of irrigation and navigation	56,901.

24 Under the head of repairs Rupees 322,598 have been laid out chiefly on irrigation works; the most considerable item being, as may easily be supposed, the repair of the Godavery anicut breach.—

Kistnah Division

25. The Public Works restrictive order of August last, has no where been found so very detrimental as in this Division. The whole Public Works were at that time progressing admirably and vigorously, the supply of materials and the internal economy of the Department being thoroughly organized, a considerable amount of labour (much of it skilled) had been collected and there was every prospect of the great scheme of continued irrigation and navigation from the Kistnah being speedily and excellently worked out when the cessation order arrived.—

26 This sudden stoppage has been most injurious, many of the half finished works are reported to be rapidly deteriorating, so that when the projects now abandoned are resumed, it will be found that much of the capital originally expended on them has been thrown away.—

27 On the resumption in 1858 of navigation of the Masulipatam Canal as a military communication it was always most difficult to procure even unskilled labour

labor, the skilled labor, drawn originally for the most part from such other Districts and trained up under Zealous Officers had disappeared, whilst much of the Cooly labor of the Division had been hired by the Ryots themselves and applied to the cultivation of the soil. The evil was aggravated by an increase of prices, especially in food and carriage without an equivalent rise of wages, so that where less than a year ago labor was comparatively abundant and moderately priced it was impossible within only six months afterwards to carry on one single Canal on an extensive scale.

28 With respect to the irrigation of the District the District Engineer reports that it has never hitherto been so extensive or so advantageous either to the state or to the people.

29. In Masulipatam at the Commencement of the cultivating season, there was a draught, after that a heavy rain fall, and lastly, a couple of months, without any rain whatever - in Guntoor the season was similar, but more severe, for there the most unusually heavy downpour in September,

breached

breached almost every tank in the Collectorate, and swept away miles of irrigating channels, yet the wet crops raised under the Anicut in the two Collectorates were of more than average yield or value. In Guntoor, the damage caused by the floods was speedily made good, and the Kistnah water turned into the repaired tanks and Canals in time to save the cultivation, which otherwise must inevitably have perished from the continuous dry weather succeeding the heavy rains. —

30 The lines of communication through the Division have, owing on the one hand to the transport of troops and stores, necessitated by the Campaigns in Central India, and on the other to the rise of prices and consequent desire of realizing the value of produce in hand, been

in greater use in this, than in probably any other previous year. The Masulipatam and Hyderabad Road in particular, has been thronged with detachments of all arms of the service, with a Siege train and with Military stores passing into the interior, and with the return Carriage bringing back inland produce. –

31. Unfortunately the people themselves have suffered severely from the disordered state of other portions of the Empire; a great call was made upon them for carriage; and on an insufficient voluntary quantity being supplied the deficit was necessarily impressed. –

32 From this cause many Ryots were afraid or unwilling to send their produce to Market, and in some places sold it to Speculators on the ground at a reduced price; preferring certain loss to

the

the chance of the impressment of their Carts and Cattle. –

33 Much oppression was exercised in this way in the collection of the required Carriage; and it ended at last in whole villages taking their bandies to pieces and burying them, and driving their bullocks away into the Hills. –

34 The movement during the past year on the navigable Canals could hardly be expected to shew an increase on former seasons, and until the lines are continued to some notable emporia as termini this is not to be wondered at. At present, the 24 Miles of first class navigation starting from each flank of the Anicut lead to nothing. On the completion of the Canal however to Masulipatam, there will of

necessity be an extraordinary increase of traffic, for when prices are nearly 40 per cent higher at Guntoor (under 50 miles in a straight line from Masulipatam) than at the latter place, individuals will realize great profits by the water conveyance of goods from one to the other town. —

35 During the past year a temporary Coast line of Telegraph was erected by Officers of the Department from Ellore to Sreele, a distance rather above 110 miles, the Kistnah being crossed by a 5/8" wire cable, 2000 yards in length, suspended from Hill to Hill, forming a bold and extraordinary span of perhaps greater single than has ever been carried into effect or attempted even elsewhere. —

36 The expenditure on new works amounts to Rupees 113,156 viz.

On Irrigation works	82,166
Communications	17,326
Buildings	14,164

the principal items being as follows,

Road

Road from Ibrampatam to the Nizam's Frontier	6,504.
Northern high level Channel from the Boodoomair to Ponderloor	9,848.
Channel from the Poolairoo near Munoor to the Canal basin at Masulipatam	27,731.
Widening and deepening the Toongaboodra Channel, and cutting a new channel in continuation as far as Nizampatam	7,595.
Western bank channel from Vullabaproo-rain to tide water	8,430.
Southern high level Channel from the Toongaboodra near the Kistnah Anicut to Iryanawpada	10,818

37. The expenditure on repairs amounts to Rupees 148,241, of which Rupees 123,807 are for irrigation works relating chiefly to the extension and development of the system dependent on the Kistnah Anicut.

Nellore:

38. This province was visited by a dreadful hurricane in November last, which did serious injury to

Rupees 20,384 are for works of irrigation and Rupees 19,182 for road repairs. The most important of the new works executed are the following.

Six bridges and 14 Tunnels between Cullor and Kulcudda on Trunk road No. 11 — 6950.
Earth work and metalling to a portion of the high road from Cuddapah to Madras 8557
New head and Sluice to the Yennamaiah Chintah Channel —————— 2314
Improvements to Budwail Tank ——— 3484
but progress was arrested by the orders of last July.

Bellary.

43. In the Bellary District no important work of any kind has been in progress except the new European Regimental hospital at Bellary, Rupees 16,980 have been expended on the foundations and basement of the building, and a few door frames have been set up for the walls above; but want of timber has prevented further progress; the required supplies being entirely dependent on the floods of the Toombudra, for the timber depôt is at Hallabaloor on that river 44 miles stream

[illegible] 1857 No. [illegible]

.ward

ward of Bellary, the Bellary Hospital was authorized for execution in List No. 1 of 1856/57, but countermanded by Extract Minutes Consultation of 25th November 1856 No. 2203. Other repairs duly executed, call for no particular notice.

44. Roads formerly made have been kept in order, but want of European Superintendence caused by the unavoidably extensive reductions and retrenchments has been grievously felt. Originally made of mere gravel, the roads require more constant attention and skill than if originally of permanent construction.

45. The Toombuddra irrigation channels have been cleared out thoroughly, and an increased area of 500 acres has been gained, but it is hoped that a still larger increase will be made in the current year, several large tanks have also been repaired, and their capacity greatly increased; so that if not for the wanton and unchecked waste by the Ryots, who appropriate 3 inches of water constantly when one would amply suffice, the rice cultivation of Bellary might be greatly extended, and thus secure a large increase of Revenue.

The.

46. The total expenditure on new works is Rupees 46,620, and on repairs Rupees 147,243; but the component items call for no particular remark. The inland position of this District renders its internal communications a *sine qua non* to the development of agricultural or commercial prosperity, and when good roads are established it may be reasonably hoped that its great Cotton producing capabilities together with numerous other Articles of export will ensure its becoming one of the most important Districts in the whole Madras Presidency.

Kurnool.

47. The Kurnool expenditure during the year amounts to Rupees 30,309 on new works, entirely roads and bridges. On the road from Kurnool to Kodamoor, Rupees 4,304, and Rupees 5,888 on the line from that town to the Nundy Canama Ghaut have been spent. The partially laid out new trace for the Muntirul Canama has cost Rupees 4,750, but the operations were insufficient to place the new line at the disposal of the Lombady bullocks, whose masters were most eager to profit by a great improvement which a slight additional expenditure would have secured to this enterprising class of traders.

48. Although there was no expenditure on new irrigation works, the repairs of several have been attended to particularly in the Drone Talook under the able superintendence of Sub Overseer [illegible] The expenditure amounted to Rupees 8763. Attention has also been paid to the roads and communications, on which the expenditure reached Rupees 11,430. The work to buildings has been of too petty a character, to require separate notice.

49. But even in this brief report it must not be omitted that the Public Works in Kurnool are most unsatisfactory, and very much indeed ought to be done for their improvement. There is not one single road completed and bridged, the irrigation from Tanks and Anicuts is exceedingly small, although, a Delta excepted, it is hardly possible to find a District with better opportunities for storing large bodies of water at a cost so proportionably small, insuring to Government a return of more than 25 per cent on the original outlay.

In fact, in many parts of Kurnool now overgrown with thick jungle, there are remains of extensive irrigation works in decay, owing to the negligence and apathy of the native rulers who governed the province before it came into the possession of the British in 1842. These works may for the most part be restored merely by filling up a few breaches and constructing Sluices or Calingulahs, or other pucka works necessary to replace the reservoirs in an efficient condition.

50. His Excellency the Commander in Chief has recently reported specially on the neglected state of this Province, as in the Military occupation of the English Government, movements of troops being impracticable. Lieut. General Sir Patrick Grant's Despatch is dated the 15th March 1858, and a copy was forwarded to the Commandant of Engineers (who has also drawn up a very vigorous Minute on the same subject) on the 30th April in the Military Department. But altho' it is now June, and the interval since the end of April is that best suited throughout the whole year for executive operations; no communication whatever appears as yet on some unaccountable omission to have been made to the Department Public Works, although important instructions have to be conveyed to the District Engineer of Kurnool, which in part, if not in whole, might even thus have been fulfilled.

Chingleput.

51. Owing to a necessity for the vigorous prosecution of military buildings in the Cantonment of Saint Thomas's Mount, ultimately to be partially supplied with defensive works, a large portion of the executive operations refers to Military works, on which including repairs, a sum of Rupees 81,726 has been expended. The principal items are as follows.

Constructing roads and Magazines on Saint Thomas's Mount	9,630.
Double row of Gunsheds &c. adjoining the Foot Artillery Barracks	17,397
Constructing a terraced Gunshed and harness-room adjoining the Main Guard	12,154
Married men's quarters (not yet completed)	17,652
Wall and guard of a picketing ground for the horses of the Royal Artillery	4,654

Most.

52. Most of the foregoing, begun in October last, have been carried on with great rapidity, so as to be completed as quickly as possible; a circumstance tending however, to enhance their cost.

53. The heavy rains of October last caused great damage to the minor irrigation works of which 300 were breached during the monsoon. The Corattoor Anicut across the Cooum, and the Casaveram Anicut across the Cortelear, at the head of the Bungaroo Channel were also breached. Three Southern Arches of the Red Hill Tank Bridge on Trunk Road No. 6 fell down, in consequence of the destruction of the rear retaining wall, and also of the foundation on the upper side. Such were the most important works injured, but repairs are being carried on rapidly, and will be speedily completed. The total expenditure on irrigation works during the year was Rupees 47,273, of which Rupees 5,828 were on new works, and Rupees 41,445 were on repairs.

North

North Arcot.

54. The North Arcot expenditure on new works amounts to Rupees 131,491. viz.

On Irrigation Works	73,121.
Communication	56,263.
Buildings	2,027.

Of the first item, however Rupees 64,850 were laid out on the Palar Anicut project alone, the head Sluices, and other subsidiary parts of which were in progress during the year, the rest of the expenditure has been appropriated to numerous small works of which the following may be considered the most important.

Extension of the Cheyair Anicut project	1,711.
A new Sluice to the Chehund Hissa tank.	1,082.
Poiney Anicut project	972.

55. Under communications, the most important expenditure Rupees 28,757 is for the Bridge across the river Palar on the road from Vellore to Chittoor, of which 14 Arches still remain to be completed, on the road from Vellore to Arnee Rupees 8,006 were expended; and a great feeding

line to the Railway, and much more so than from Bunnavorum to Sholingur, which has been exempted from stoppage on that from Gorallum to Pollicondah, Rupees 3,643; but the further progress of these and other roads was for some time arrested by the restrictive order of July last, a bridge of 11 Arches of 30 feet span across the Igurum river on Trunk Road No. 1 was however completed by Captain Barber Executive Engineer and opened for traffic in September 1857.

56. The expenditure on buildings does not require special notice.

57. The outlay on repairs amounts to Rupees 86,062, Rupees 34,920 being for irrigation works, Rupees 46,538 for roads and bridges, and Rupees 4,604 for buildings. The greater part of that on communications belongs to Trunk Roads No. 1 and 10, while the remainder is distributed over numerous petty items not requiring special comment.

South Arcot

58. At the beginning of the year 1857-58 preparations were made for commencing several

large

large works in South Arcot, but these projects were stopped under the orders of July last; some few exceptions however were made when it was necessary to advance the works to a certain stage of completion for the sake of security, such were,

Bridges across the Ponnair on the Southern coast road finished in October 1857	8,081.
Four bridges on the road from Tindevanum to Trinomallay	3,600.
Two bridges on the road from Colundoor-pett to Caliconidee unfinished	1,644.
Bridges on the road from Cuddalore to Salem frontier	1,993.

59. No work of any importance has been executed in the irrigation Department except the improvement of the Vellaur Anicut irrigation ducts for the Cringoshi and other villages, and which was partially completed in November 1857, at an aggregate expenditure of Rupees 10,032. The Cuddalore harbour was improved by cutting a new and more direct boat channel through a Shoal at an outlay of Rupees 2,170, thus making the aggregate

expenditure on account of the improvement Rupees 7351. .

60. The entire expenditure of the District on new works was Rupees 41,873 of which Rupees 13,131 belonged to irrigation works, Rupees 27,957 to communications, and 785 Rupees to buildings, the last item comprising no work requiring notice..

61. Of repairs 70,981 Rupees were spent on irrigation works, the principal outlay being in the Villapooram and Southern Talooks, which were visited by a severe gale in November last, 416 is the total number of works repaired, the Perroomal Tank being the most important and next the Goverapet channel embankment and aqueduct - Repairs to roads and buildings respectively Rupees 37,568, and Rupees 2113 were altogether of an ordinary character.

Tanjore

62. After the postponement and delay caused by the summary discharge of an entire class viz. the lower Subordinates (342 in number) at the very moment of Tanjore being subjected to a transfer in conformity with all other parts of the Presidency, it ultimately was deemed practicable

to

to undertake the sole Executive charge of the District even with a professional establishment and Staff, admittedly entirely inadequate to the current duties of the Public Works Department. If even it were not now profitless to further debate a vexed question - when applied to at once the most important and also apparently (but perhaps not really) the most arduous of all our Provinces, the present is neither the place nor time for discussing the separation of Public Works from the Revenue and Police Officers of Government, and it therefore is enough to report that the actual transfer, beset by numerous minor troubles embarrassments and references, was not practically completed, even ostensibly until the 1st of January 1858. Scarcely a single favorable prediction of the successful working of the new system seems to have been placed on record, the ablest and most experienced Officers concurring in the opinion that the Meerassi system which is to be found in its fullest development in Tanjore would prove an insuperable obstacle to the establishment of free labor and prompt payment, the hitherto supp of workmen by the Meerasidars themselves having been most exclusive and invariable. Even at this early period however there have been observation and experience enough to warrant the encouraging conclusion that the Native character is no less clearsighted in the detection of its own interest in Tanjore, than in other places. The confidently foretold Meerasidar opposition has nowhere been apparent; the great landholders have been found fully accessible to the reasoning which shews, that repairs and improvements, previously intended for the security or reform of their own works, and therefore for their own benefit, if executed at all, had better be done so with all available professional skill, system, and science than desultorily and perfunctorily, and that the practise of a full day's wages for a full day's labour, payments being always prompt and punctual, is preferable to that of advances mixed up with "tuccavee" and "kist" and other revenue accounts. In practise therefore, the Meerasidars have proved the auxiliaries, and not the opponents of the new Public Works system; and if the same measure

of

of assistance and the like friendly spirit had been shewn by the native fiscal officers of Government as have been evinced by the large landholders of the Province, Tanjore might even already have been cited as a happy exemplification of the beneficial results of the Reform. But amidst other minor hindrances not foreseen and certainly never expected may be cited the obstacle caused by the system of impressing coolies about the time of harvest, in order to their employment on lands under "Amanee," or the direct management of Government Officers. The peons engaged on this duty of course find it easy to coerce coolies from those engaged on public works, where they, as it were, are already collected to their hands, and they do not hesitate to remove them notwithstanding the remonstrances of the Officers of the public works, whose complaints are even reported to have been sometimes disregarded by the very Collector himself. It is to be hoped, however, that such opposition which has the effect of crippling one branch of the service for the mere convenience rather than benefit of another, will gradually give way to a more enlightened management which shall be cognizant of the untellable mischief of holding up to general observation two Departments of the public service of the same Government as acting in apparent mutual antagonism, instead of uniformly in harmonious co-operation. The difficulties, which it must not be denied are practically great, are yet of a character that is kept as much out of sight of superior Officers as possible and they resolve themselves rather into a fully constant warfare (if any warfare can be fully of subordinates, the one jealous for privileges supposed to be newly conferred, the other reluctant to forego the exercise of functions hitherto a portion of their own current duties, than of disagreement between the higher Officers, and thus in a hundred different ways not of easy definition, and through many various channels, small oppositions are set a foot, irritation is soon awakened, exasperation quickly ensues and estrangement or even hostility are found to be rapidly developed amongst the lower of the most

subordinate

subordinate of all the many employées, both in the Fiscal and the Public Works branches of the service with chance of action and reaction on higher quarters. It seems essential then that this evil, no imaginary one, should be taken up promptly, in view to peremptory check (whilst the spirit, still chiefly nascent, of alienation is in its infancy) in the Collector himself. It is suggested with all deference that a public Notification might be drawn up under his name and authority for general circulation with the greatest advantage; and which detailing at once, how and in what manner, the Government servants of each Department, come in contact with each other, and how far each should be expected to bear and forbear in order to ensure good will, harmony, and efficiency, should be fixed up in all the Choultries, Moosaferkhanas and other public places of general resort throughout the whole District of Tanjore, of course not omitting a Statement of the penalties to be inflicted on breach of instructions on the servants of either and both Department..

63. Owing to restriction of expenditure, no large new works have been prosecuted in the Irrigation Department, for only Rupees 3470 have been so expended, but upon roads and bridges an outlay of Rupees 30,903 comprises the following principal items.

Bridge across the Coleroon at Anaikarun Chuttrum open to the public, but parapet walls not yet finished	5,331.
Bridge across the Lower Anicut on the Coleroon	13,434
Canal from Premulvassel to the Coleroon	6,855.
Bridge across the Nusoomar the road between Manargoody and Adumpalam	1,983
Soolaur bridge and tunnels over channels on the road from Mennellum to Cuduvassel	1,736.

64. Considerable damage by the October's monsoon to the irrigation works, particularly in the Trivady Talook called forth a very large expenditure. Repairs to the Upper Anicut, to the Vennaur regulating dam and to the Cutchamungalum Anicut and important clearances to the Pillair Voikal have all been satisfactorily accomplished. Numerous other works have also been repaired at a cost altogether of Rupees 165,965. On Roads and Canals, the amount of repairs was Rupees 10,713; and on buildings, Rupees 1,278, making an aggregate of Rupees 177,956 for the season 1857/58.

Trichinopoly.

65. It has been found absolutely necessary in Trichinopoly to proceed with certain irrigation works of improvement, the further stoppage of which would have entailed a considerable loss of that revenue to Government which represents scarcely half the loss at the same time inflicted by the like cause on the landholders. Nor was it until loss had actually been sustained that the orders were relaxed in favor of the extension of the Laulgoody channel to the Oodiarpolliem Talook, and also of the construction of an

additional apron to the Nunthayaur Anicut needing to completion an expenditure of only Rupees 2621. On the Coleroon main channel in the Oodarpolliem Talook, an expenditure of 11,000 Rupees placed the work in efficiency, but completion was prohibited. On improvement of the Lealgoody channel, and on the reconstruction of the Nunthayaur Anicut, Rupees 6,984 and Rupees 4,203 were respectively expended. The entire outlay amounted to Rupees 25,402 on new works of improvement..

66. Rupees 3,470 have been laid out in repairing the Dindigul road, and Rupees 1044 in rectifying the bed of the river Coyaur near the new bridge on Trunk Road No. 8 from Madras to Trichinopoly; the aggregate road expenditure throughout the year being only Rupees 5,053.

67. A more than usually liberal expenditure has been made in the Military Department in the District of Trichinopoly which forms the Head Quarters of the Southern Division of the Madras Army. The total outlay has

amounted

amounted to Rupees 17,413; chiefly in the reform, improvement, and reroofing of the old Barracks, and in constructing temporary Buildings for the European Regiment during the erection of permanent quarters. The progress has by no means been so satisfactory as was to have been expected under the urgent character of the circumstances, and under the management of so able and generally so energetic an Executive Officer as Lieutenant Ryves, and His Excellency the Commander in Chief has censured the Executive Department for their shortcomings.. —

68. The rains of November and December 1857 did such considerable damage to the works of irrigation, that an outlay of Rupees 76,681 was required for their repair, unfortunately the unusually copious rains of November 1857 were moreover succeeded by an absolute drought of 5½ months to the serious injury of all common tank fed cultivation dependant on the Talook river channels notwithstanding the seeming scantiness of supply in the parent streams have fully matured their crops, the value or selling price of which, is

all the greater from the suffering created by so long a total absence of rain.

69. The outlay on the repair of roads amounted to Rupees 24,171 and that on buildings to Rupees 2,613 - no item worthy of special mention being included therein.

70. The District Engineer complains of the prevailing system of impressing carts on occasions of movements of the Military. The same results as detailed already in Masulipatam failing not to ensue. The Government in Extract Minutes Consultation of the 20th May 1857 extended such protection to Public Works Officers as the nature of the case admitted and when the urgency is bonâfide so great as to override the

contracts.

contracts or other engagements already complete, it only remains to relieve the impressed parties from all penalty &c. &c. &c. for non-supply.

Madura.

71. The Madura operations have been very limited, the entire expenditure on new works being,-

Irrigation	185
Communication	20,930
Buildings	2,504
Total	23,619

72. The Bridge over the river Ambravutt on the road from Dindigul to Paulghaut on which Rupees 5,032 have been expended - that across the Shunmooganuddy, of which only a pier and abutment were built at a cost of Rupees 1,413 and the roads between Pallungoody and Corlumput, and between Samuranelloor and Dindigul, on which Rupees 1,574 and Rupees 2,141 were respectively laid out are the only works deserving mention.

73. The highly important Paumben channel

between Ceylon and Continent of India in the Gulph of Manaar has been further improved by the removal of 7170 Cubic feet of stone, and 9285 Cubic feet of sand at a total expenditure of Rupees 9104; and this great channel of navigation with its rapidly increasing traffic tonnage is slowly but steadily advancing towards the attainment of the general depth of 13 feet shewn to be practicable and strongly recommended by Colonel A. Cotton in 1854 at a probable expense of Rupees 3,39,300..

Vide Letter to Govt. No. 10 dated 16th January 54.

74. Under head "Buildings" the Talook Cutcherries at Meyloor and Thiroomenagalum; are reported all but completed..

75. The "repairs" amount to Rupees 56,669, of which Rupees 57,370 are for irrigation works, Rupees 24,121 for communications, and Rupees 2613 for buildings; but none are worthy of special remark. It is however to be remarked that influenced chiefly by the scarcity and high prices resulting from the long drought described in Para 69, which extended to Dindigul, and Madura, the Government were pleased to lift the interdict from the Estimates No. 320, 322, and 323 in No. 2 Budget List for 1857/58 for repairing and improving a portion of the road No. 18 between Bullagoonda and its junction with road No. 15 at Pullapully and road No. 1 between Trichinopoly and Dindigul, as well as improving Road No. 15 between Samia-Nellore and Dindigul Amounting respectively to Rupees 7884 - 6800 - and 14,510 - It is remarkable however that notwithstanding the scarcity with some of the poorer classes in both Dindigul and Madura is but little short of starvation, and although prices are liberal for all classes, especially women and children, with prompt payment and the most considerate treatment, yet the general aversion to Road work by all but Wudders is little short of unconquerable. Finally although it involves a slight anachronism as to date, it must be reported that no care or attention whatever having been paid by Government until the last few years, and when too late in this particular instance to the dilapidation of Tirumal Naick's Palace at Madura, that most beautiful specimen of highly ornate Indian Palatial Architecture has fallen to so great an extent as to have for ever destroyed its beauty except as a relic and a ruin.

Vide Govt. [illegible] No. 727 3rd March 1855.

Tinnevelly

Tinnevelly

76. The Public Works Officers in Tinnevelly although having to contend against the formidable opposition of the Meerassidars who enjoyed great immunities under the old Executive System had yet had very much to encourage them at first whilst supported by a full professional / subordinate staff with a compliment of Executive Engineers for each of the several (5) Ranges into which, the District has been subdivided: for having a liberal sanction in Lists 2 & 3. of 57/58 the District Engineer was by degrees overcomming all opposition, the prompt & punctual payment of the Puliars, overbearing dearth of labourers created by the Meeraſsidars. When however the retrenchment alike of the numerical strength of the new Executive Establishments and of the Estimates available for expenditure was enforced by the restrictive orders of the 17th July last, which at once incapacitated the District Engineer from the prompt measurement and payment of work on which he had alone to rely for success, the Meerassidars were induced to withhold their already partially conceded assistance from the Officers of the Department, who consequently found it most

difficult

difficult to obtain any labourers at all for their Public Works. The inferior class of the population being in a state of actual if not nominal servitude to the land holders, and being in a great measure directly supported by them, the opposition of the Meerassidars has hitherto prevailed especially as the inferior Revenue servants are believed to be acting in collusion, more especially in giving currency to the rumour now very prevalent thoughout the Tinnevelly District of the old system being already on the eve of reintroduction and needing only some executive failure from whatever cause: to be reverted to forthwith.

77. It is believed nevertheless that under a continued system of regular and prompt payment, the present opposition whether from Meeraſsidars or from Talook servants or both will gradually give way. It is also hoped that this new System so different from and so much more liberal than any which the Tinnevelly Puliars can hitherto have seen, will tend to free this depressed people from the state of thraldom in which they are at present held by their selfish masters.

The

78. The expenditure of the District, in consequence of these and other difficulties, obstacles, and of the restrictive general orders, has only reached Rupees 20,761 on new works, and Rupees 56,968 on repairs, as follows.

New Works.

Irrigation	11,036
Roads and Bridges	8,103
Buildings	1,622
Total	20,761

Repairs

Irrigation	50,773.
Roads and Bridges	4,979
Buildings	1,216
Total	56,968,

no single work deserving special mention.

Coimbatore

79. The Coimbatore Expenditure on new works has been as follows.

Irrigation	14,426
Communications	16,169
Buildings	3,28,557
Total	3,59,152

The

80. The repair, improvement, and extension of the Callingaroyan Channel with new head has cost Rupees 13,084 and is the most important irrigation operation performed in the District. The Tadapully channel also from the right bank of the river Bowani has likewise had an expenditure of 1550 Rupees, whilst all other works are not of moment.

81. The following communication Repairs are to be specified, Viz.

Bridge at Umbrawilly	3622.
Bridge at Marchenaikenpolliam	1476.
Tanks & wells on the Hassanoor Ghaut	421.

82. The largest expenditure is in the Military Department and may be given at Rupees 3,17,000 in prosecution of the works accommodation for a full European Regiment at the Hill station & Sanatarium of Jackatallah on the Neelgherries, thus making already with previous outlay an aggregate expenditure of Rupees 9[illegible]411 out of the General Estimate of 15,71,500 allotted for the whole Project of the Buildings required in the Jackatallah Cantonment.

83. A very marked increased rate of progression cannot be denied to the operations of 1857/58, but with every exertion possible, the locality itself is said to interpose obstacles which can only be partially Overcome; and it is more than questionable to my mind whether under the present executive Arrangements further acceleration is practicable. Assuming then the maximum progress to be represented by the outlay of the last season when no appeal had been omitted likely to works upon the zeal and efforts of the energetic Executive Engineer, Captain Campbell, it is not to be expected that the entire project will be fully worked out before the beginning of 1861, when, a period of little if at all less than 12 years will have been consumed in the construction of Permanent Quarters for a single European Regiment of Foot.

84. If to the above aggregate of Rupees 15,71,500 be added the cost of the Punishment Shed Rupees 3270, the total will not materially differ from the aggregate estimates of the new Buildings also for a full European Regiment at Trimulgherry near Secunderabad, a project that has a total sanction of nearly — Rupees

Rupees 15,84,888 - yet the Trimulgherry works were not commenced until 1855, and will without doubt be completed in all 1859, or commencing at least 5 years later, and having a much larger cubical content of brick masonry, the Trimulgherry Quarters are even on ampler scale than the noble buildings at Jackatallah will be finished fully 2 years earlier, and it is certainly a very startling assertion that an additional period of no less than 7 years should be required for the expenditure of the very same sum at Jackatallah as at Secunderabad in the Deccan

85. Among other 1857/58 progress may be mentioned the Civil Dispensary (Rupees 1354) and Travellers Bungalow (Rupees 1677) at Coonoor. A Conservatory too at Ootacamund had cost Rupees 1498, and a School house at Coimbatore Rupees 2595.

86. Repairs amount to Rupees 71,417. Comprising Rupees 29,366 on irrigation works, Rupees 38644 on Communications, & Rupees 3407 on Buildings, none calling for special remark.

Salem

87. The drought described as vexing Trichinopoly, Madura, and Dindigul, extended

to Salem and deprived many of its irrigation tanks of their usual supply. The partial loss of revenue from withered rice crops is a smaller evil than the sacrifice of the seed, labour and capital of the landholder who trusted to the bounties of heaven not being so long withheld; much distress was relieved by employment on the railway, and on the few works permitted to progress in the District.

88. The entire expenditure on works of irrigation was only 803 Rupees. On Communications Rupees 11,892. About 10 miles of the Yercaud Cart road to the Mullapooram railway Station have been completed for Rupees 9146, but as there is not a single bridge built; the road may easily remain incomplete when the Rail is opened. Three miles too of the line from Darampoory to Morapoor have cost Rupees 1539 but it would seem highly desirable to at once give partial effect to all Projects for feeding the approaching line of Rail, such for instance are the two Estimates 447 and 448 respectively Rupees 15,280 and 24,600 for connecting Yercaud or the Shevaroy Hills with Adaumeollah station via

Mullapooram;

Mullapooram; and not less necessary is No. 449 of Rupees 5,500 to connect Morapore with the Dharampoory Station. Also No. 451 Rupees 7,500 to place the important trading town and entrepot of Vaniembaudy in connection with its own station on the rail: for unless the interdict be removed from these feeders immediately, there will be an even greater defect of cement between the two branches of the public service, vizt. the Railway and Public Works Department than has unhappily been lately displayed at Goriattum. Projects once placed in Official abeyance are so easily overlooked chronically and disturbance is so often recurring that however the present little fitting occasion has been taken to solicit the authority of Government for immediate action in Salem whilst further suggesting also that either directly or through the Chief Secretary, the Consulting Engineer may now make known to the Central Office Public Works his intended Railway station both in Coimbatore and Malabar; for such knowledge, if even furnished within the week, would be any thing but premature. Finally a small sum of 554 Rupees has been spent on the road between Nancul and Senkerry Droog.

89. The new Central Jail at Salem which has also been steadily and satisfactorily carried forward under Lieutenant Gahagan at an expenditure

of Rupees 23,314, the foundations and walls above of four of the blocks being almost completed and those of the 5th and 6th being under rapid progress. New Sick Stables at a cost of 8151 Rupees have also been built at the Ooſsoor Remount Depot, whilst finally the District Engineer's Office and Store sheds &ca have also cost 1715 Rupees during 1857/58.

90. Repairs have been as follows Vizt.

Irrigation Works	42,128
Communications	20,338.
Buildings	1,790.
Total	64,256.

Canara.

91. Upon the important Communications of Canara only Rupees 17,501. have been spent being confined almost entirely to the Yellapoor, Sirsy and Hallandy road circuit.

92. Rupees 939 have been laid out on 7 or 8 Buildings of which Rupees 228. on the new jail at Honore is the largest item.

93. Repairs on account of the District Engineer's miserable misinterpretation of the restrictive orders of July 1857 have also been most inadequate. On the Trunk road No. 2 Rupees 5623. were

were however spent in alleged improvements, and on the Dharwar and Coomptah road the energetic Lieutenant Drever spent Rupees 25,326, but notwithstanding so great an outlay this exceedingly important line of communication is understood to be still in a disgracefully bad condition.

94. The aggregate maintenance and repair of communications has cost Rupees 40,204 and of Buildings Rupees 8190: the entire expenditure of the year under all heads being Rupees 67,112, under a District Engineer, whose health was latterly so shattered by the incredible exertions, and solar exposure of exploring and levelling the Upper Godavery during the hot season of 1855 that the very functions of the brain and mental equipoise were temporarily deranged for some portions of most days latterly; & it is alike to be regretted and wondered at, that the presiding local authority did not diſpoſseſs him forcibly, if neceſsary, of his Office on his malady and consequent incapacity so plainly manifesting themselves. The late District Engineer has been since sent to England on Medical Certificate.

Malabar

95 The only irrigation work in this District is the dam at Chetwye, upon which a final sum of Rupees 384 has been laid out. The Project itself has since been in abeyance whilst

undergoing much and severe scrutiny that should have preceded actual and costly operations under Major Selby instead of following them.

96. The deep and rapid river at Irrity intersecting a highly important military communication, its projected Timber truss bridge has been exempted from the operation of the prevailing restriction and Rupees 8266. have been laid out on its partial prosecution. The abutments and 3 piers have been built, and the wood and iron work of one of the bays has been set up, but the early completion of the work with so premature a monsoon is no longer to be hoped for. Thirteen miles of road from Calicut to Paulghaut have been completed with tunnels, and twenty nine more nearly finished with earth work only without masonry. The expenditure during the year being Rupees 3357. Three miles of Ghaut have been metalled on Trunk road No. 4 at an outlay of Rupees 4740. Communications in Malabar have cost Rupees 18,157. in 1857/58.

97. The recent alteration in the site of the Buildings at Mulliapooram for the Malabar Police Corps has led to more than common expenditure in the Military Department. On new Buildings the total outlay is Rupees 11,256..

comprising

comprising in the new cantonment at Mulliaporam a hospital, conjee house, Powder magazine. Pony lines and Tank [for the mountain train ponies] a place of arms almost completed, and an Elephant Shed under construction.—

98. At Cannanore the well situated Fort has been satisfactorily repaired, and the station which is the Head Quarters of Malabar and Canara having been minutely examined by His Excellency the Commander in Chief it is to be expected that erelong orders will reach the D. P. W. to carry out the views of improvement so earnestly enforced in His Excellency's Report of the 15th March last.

99. The barracks at Calicut have been greatly improved by the substitution of planked flooring and further have been otherwise put into much better order. The artillery barracks, the Magazine, and the Commissariat Cutwall's Choultry have also been thoroughly repaired, and after a delay very far from creditable to the D. P. W. the various Military Buildings at Manantoddy in Wynaad have been extensively and satisfactorily repaired. Thus altogether Rupees 13,380 have been expended upon Repairs of Buildings, and adding the Roads [see Para 96] Rupees 18,157, the aggregate

in 1857/58 is seen to have reached Rupees 31,537-

Madras.

100 The entire expenditure on P.W. at the Presidency of Madras (excluding the Municipality for whether required by the Government or otherwise, the Central Office has not received any Reports or Accounts) during 1857/58 has reached the goodly amount of Rupees 236,325, notwithstanding the prevailing maintenance of the general Interdict.-

101. The altered departmental organization which had been ordered in the early part of 1857 so as to conform to the Executive arrangements of the two sister Presidencies, has only taken full practical effect from the commencement of the last Official year.

102. From the 1st then of May 1857 was abolished or superceded the large Establishment and Office of works, hitherto conducted by one of the most experienced Officers in the corps of Engineers, who with the very inconvenient designation of Superintending Engineer at the Presidency (thus causing confusion with the Members of the Central Office) and with the help of a Commissioned Assistant had the entire Executive charge and control, not only of all Civil, Judicial, Marine, Revenue, and Military Buildings, (including the Port of Black Town and Fort Saint George) but also of all the extensive Barracks and Military works in the cantonments of the three out stations, Palaveram, Poonamallee, and Saint Thomas's Mount.

103. The appointment of Superintending Engineer being done away with, was subdivided into the two Offices at present constituted, namely, that of the "Civil Architect at the Presidency" and that of "Garrison Engineer of Fort St. George" - a nearly exactly equal allotment of the previous Establishment having been assigned to each, an arrangement which however simple or obvious, was by no means so certain of practically proving suitable to the nature and extent of the several duties allotted, as happily seems satisfactorily demonstrated by the actual expense of a first years trial.

104. In respect to separation of duties, an almost equally simple plan suggested itself; all Civil buildings and works of whatever

kind / except for the accommodation of troops / were confined to the Civil Architect, whose Office has opened in as central and convenient a station as Colonel Atkinson (the previous Superintending Engineer at the Presidency) could discover; and the Garrison Engineer retaining his former spacious premises inside the Fort, has primarily charge of Fortress under the Commandant of Engineers, communicating the orders of the Right Honorable the Commander of the Garrison through His Lordship's Town Major, & for the rest as an Officer of the D.P.W. has charge not only of the whole of the Buildings within the Fortress whether Civil or not, but is also intrusted with all Barracks and other Military Buildings of whatsoever kind outside Fort Saint George, as at Vepery, and Perambore, Gun Carriage Manufactory &c.

105. Out of the aggregate Presidency expenditure / Vide Para: 100 / Rupees 2,36,325, the Civil Architect has expended

Rupees ———————— 92,203 „ „
of which there are for New Works —— 44,327 - „ - „
and for Repairs ———————— 47,876 - „ - „

being almost equal to each other, and the Garrison Engineer has expended ———————— 44,122. „ „
of which there are for New Works ———— 71,470 - „ - „
and for repairs ———————————— 72,652 - „ „
also exhibiting a similar correspondence in accounts.

106. In the Civil Architect's Department the following are the most important works either executed or in progress, namely, alterations to the Penitentiary (nearly completed) Rs. —— 13,709 - „ -

Erecting 4 flanking defensive towers at its angles, under execution ———————— 5,472 - „ -

Inner external long Verandah also to the Wards of the prisoners, under execution —— 2,485 „ -

Additions and improvements in accommodation of Lithographic Press Office (completed) ———————— 1,570 — „ —

Improvements and additions to the General Police Office (completed) —— 2,593 — „ —

Granite paving for floor of Government Press Office (completed) ———————— 3,987 — „ —

107. The most important works in the Garrison Engineer's Department are strengthening)

-ning)

Strengthening Groins No. 14, 15, & 16	Rs 1,318	„	„
Dwarf groin near the Custom House (half done)	1,826	„	„
Additions and alterations to the Presidency Sea Customs House (Completed)	4,825	„	„
Constructing 5 Groins to protect the Royapooram boatmens village (Completed)	2,708	„	„
Reform of Clives Battery for 68 lbers and heavy Guns with Furnace for hot shot, Store rooms, loop holes &c. (nearly completed)	3,755	„	„
Minie Bullet manufactory 5/8 completed	21,847	„	„
Showerbath for the European Veteran Company	3,586	„	„
Platforms round the washing rooms in the Gunpowder Manufactory	2,702	„	„
Stone platforms on the land side of the Fort	2,701	„	„
Shed near the Laboratory	3,127	„	„
Coal sheds near Boatmen's gate and railway for conveyance of Coal (3/8 Completed)	11,248	„	„

108. It will thus be observed that contrary to what was to have been expected, the Garrison Engineer's duties as measured by Cash outlay is as 3: 2. compared with the Civil architect, and whose expenditure is less than two thirds of the minor Office. This is a circumstance which may be attributed, first, to the restriction being peculiar to Civil undertakings alone, and 2dly to the exceeding impetus which the Rebellion has communicated to the store and Equipment Department of the army, whereby expensive provision has necessarily had to be made for accommodating the machinery required by the Officers of Ordnance, Commissariat &c.

109 It is perhaps more than probable, that in future a similar money inequality will be found the very reverse of that now under observation, and that in point of fact no changes or adjustments, thus far at least, seem to be required between the two new offices.

East Coast Canal

110. The expenditure of the Superintendent

East Coast Canal in 1857/58 has reached a total of only Rupees 38,508, the East Coast Canal extension Projects being in abeyance till more prosperous times of peace. The following are the principal items of outlay.

Adyar and Palar Canal	11,407
Improvement and repairs between Madras and Ameen Covil	9,506.
Revetment to east side of Town Ditch between Cochrane's and Elephant bridges	1,553.
Experimental model boats	3,254

111. The above and other projects commenced upon early in the season were however, like all others elsewhere subsequently stopped, the model boats required for stocking the virgin south Canal, (forming) the single solitary exception, so that adding Rupees 8,571 for amount of maintenance and repairs, an aggregate of Rupees 38,508 has to be written against the Madras East Coast Canal; a water Communication which branching from the Presidency to the North and South leads to nothing, operations having been stopped first short of a well-defined and promising) terminus in each direction—

Mysore

Mysore and Hyderabad

112. The extensive series of Military buildings and ranges of barracks under construction for the accommodation of Troops at Bangalore and at Trimulgherry near Secunderabad, are highly important works indeed, and they are, for 57/58, represented, respectively by Rupees 95,759 (Rupees 1553 being for repairs) for the former, and by Rupees 3,60,570 (with only Rupees 812 for repairs) for the latter. It is in the Hyderabad D. P. W. alone that a review of the operations and transactions of the past year yields credit, satisfaction, or encouragement; for elsewhere in this Presidency the numerical strength of the Department and of its dependent office Establishments has been reduced so far below, not simply its wants, but its necessities, that it may with perfect safety be affirmed that twice the amount saved to the Government by such retrenchments has been lost to the state by destruction of property that had been otherwise in safety.

Central Office of P.W.
Fort Saint George,
4th June 1858.

I have the honor to be &c.
(Signed) C. E. Faber, Colonel
Chief Engineer

"True Copy"
E Lawford Lieut Colonel
Officiating Chief Engineer

Compd J.H.

Enclosure N° 1

a Letter from the Officiating Chief Engineer

To The Secretary
to Government [illegible]

Dated 16th } December 1858.
Received 17. }

No. 6354.

P.W. 3079/58-

Administration Report of the Madras Public Works for the Official Year 1857/58. —

From,
The Superintendent of the
Government Lithographic Press
Central Office of Public Works.

To,
The Chief Engineer
Department of Public Works,

Sir,

In obedience to orders, I beg leave, very respectfully to submit, annexed, a Statement of work executed at the Government Lithographic Press of the Central Office of Public Works, for the Official year ending 30th April 1858.

2. The expense of Office Establishment &c., the Out-turn of the year, by the steady and regular working of from four to five Presses daily, and its valuation, are given in the Memorandum at the foot of the Statement; which, I humbly trust, though not so favorable as might be expected, will, nevertheless, be considered satisfactory; considering that this Memora but the result of the first year's operations, with its many disadvantages since the Department was extended in January 1857.

3. The quality of the work turned out generall while we stand in advance in colored printing introduced during the year under review, and which has done away in several instances with the after tedious process of coloring bi the hand, thereby economizing both time and expense, I the

venture to state, will be found equal, if not superior, to that turned out in the Sister Presidencies.

4. Now that the Draftsmen and Printers are better up to their work, and the Department generally in a more efficient state of working order, I trust to be able, at the close of the present Official year, to come forward with a comparative Statement of work considerably exceeding that now submitted.

5. The largest size Lithographic Press in use, either in England or abroad, recently received from Europe for the use of this Department, which has been allowed to stand still since its receipt for the want of some simple mechanical means to work the very unwieldy and heavy stones, will, (as these means have lately suggested themselves, and which will shortly be introduced) during the current year be brought into effective operation.

Most humbly and respectfully soliciting your favorable consideration, and that of the Government, with reference to my present reduced salary, and to the sacrifice of my private earnings,

Govt. Litho: Press of
Central Office of P.W.
Fort Saint George
6th May 1858

I beg to remain,
Sir,
Ever your grateful servant,
(Signed) J. Dumphy,
Superintendent & Manager.

Statement

Statement of Work executed at the Government Lithographic Pr
of the Central Office of P.W. from the 1st May 1857, to the 30th April 1858.

For what Office	Maps and other drawings		Circulars Forms &c.	
	Number of copies	Number of Impressions	Number of copies	Number of Impressions
Central Office of Public Works	9286	11,352	88467	79,212
District Engineers through the Central Office	"	"	6,000	2,000
Government Office, Public Department	1340	1712	11,300	5,860
" " Judicial "	36	36	"	"
" " Military "	2,200	736	9,050	3,025
" " Public Works "	102	102	6,600	1,300
Government Gazette Press	8,755	9,574	900	900
Government Central Museum	7,000	7,000	"	"
Military Board Office	400	400	"	"
Revenue Board Office	102	204	10,000	1,755
Adjutant General's Office	4,360	5,240	10,200	800
Town Major's Office	"	"	5,850	975
Collector of South Arcot	310	310	"	"
" of Madras	1095	1225	"	"
Madras University	"	"	254	254
Conservator of Forests	1000	800	"	"
Inspector General of Hospitals	"	"	1,600	40
Office of the Commandant of Engineers	"	"	7,084	1,65
" " Commander in Chief	"	"	9,100	60
Superintending Engineers of Circles	"	"	3,100	1,03
Male Asylum Press	300	300	"	"
Madras Journal of Literature and Science	1660	3,165	"	"
Civil Auditor's Office	"	"	3,000	47
Lieutenant Taylor's Charts for sale and for distribution	600	600	"	"
Map to accompany the yearly Budget of the Madras Presidency (sold also to the Public)	500	4,500	"	"
Quarter Master General's Office	182	182	3,539	3,02
Total	39,228	47,438	1,70,444	1,04,20
Average per month	3,269	3,953⅙	14,263⅔	8,683

No. of Copies of Drawings & Writings together, for the year 209672.
No. of Impressions of Drawings & Writings together Do. 1,51,638.

Memo.

	Rs. a. p.	
Cost of Office Establishment, for the year, deducting the Salaries of 3 draftsmen, exclusively employed in compiling and correcting District Maps, and 1 writer	18,320	
Contingent expenses incurred, during the year, in the working of the Office	548-2-4	Rs. 18,868-2
Value of Maps and other drawings: 47,438 Impressions, at 20 Rs. p. 100 Imp.	9,487-9-7	
Value of Circulars, Forms &c. 104,200 Impressions, at 7 Rs. p. 100 Imp.	7,294-..-..	16,781-9

Cost to Government in excess of value of work returned: Rs. 208

(Signed) J. Dumphy

These are [illegible]

Memorandum on the foregoing Report to accompany Narrative of the Operations of the D. P. W. for the Year 1857/58.

The outturn of the Government Lithographic Press for the year 1857/58 has been as follows.

Maps and other Drawings.	
No. of Copies executed during the year	39,228
No. of impressions	47,438
Circulars, Forms, &c.	
No. of Copies executed during the year	170,441
No. of impressions from the Stone required for the above	104,200

making a total of copies of drawings and writings together for the year of 209,672 made by means of 151,638 impressions.

The number of impressions differs from the number of copies, as a copy sometimes requires four or even more impressions, while at other times two or more copies are struck off one stone.

In the accompanying Statement the authorities for whom work was done and the numbers of the Copies of the Drawings and papers supplied to each is shewn in detail; this will shew the great utility of the Press which works for every Office which requires its services. The quality of work is gradually improving, and a great step in advance has been made by the introduction of printing in colours which insures accuracy at a great saving of time.

It is not easy to judge of the value of the work executed as there is no private establishment in Madras which can compete with the Government Press or in fact execute any but very inferior work. The present Superintendent had a private establishment which turned out excellent work, but he has given up private work. He has appended to the Statement already alluded to a comparison between the cost of the Government Establishment and the value of the Work turned out by it - the latter is I think underestimated, so that even in its present somewhat inexperienced state the office has acquitted itself very well indeed. —

(True Copies)

Lieutt Colonel
Officiating Chief Engineer.

Compd A.H.

Enclosure No 7.

In Letter from the Officiating
Chief Engineer

to
The Secretary
to Government N.W.P.

Dated 16th December 1858.
Recd 17
P.W. 3079/58 No 6350

Copy of a Report on the state
intended by the Lithographic Press
attached to the Central Office on
the work performed in that Depart-
ment during the year 1857/58, and
of an Allowance proposed therein.

Statement Shewing the Issues of Mathematical, Scientific, and Drawing Instruments to the different Districts from the 1st. May 1857 to the 30th. April 1858.

Names of Articles	Arcot North	Arcot South	Bellary	Canara	Chingleput	Coimbatore	Cuddapah	Ganjam	Godavery	Kistnah	Kurnool	Madras	Madura	Malabar	Nellore	Salem	Tanjore	Tinnevelly	Trichinopoly	Vizagapatam	[illegible] Canal	Mysore	[illegible]	[illegible] No. 11	[illegible]	[illegible]	Total	Remarks
Barometer Aneroid	"	"	1	1	"	2	"	"	1	"	3	2	"	1	"	"	"	"	"	1	"	"	"	"	1	"	13	
Boxes, Drawing	"	"	"	"	3	"	"	"	2	"	"	3	"	"	2	1	"	"	"	"	"	"	"	"	"	"	11	
Box Magnets, pairs in brass case	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	1	
Chains Measuring with arrows	2	6	4	1	3	"	2	3	1	"	2	6	1	1	1	2	2	3	"	2	3	"	"	"	"	"	45	
Circumferentors, Complete	1	4	"	3	3	"	"	"	1	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	13	
Clinometers	1	1	"	1	3	"	"	"	"	"	"	1	"	"	2	1	"	"	"	"	"	"	"	"	"	"	10	
Color Boxes, large	1	3	"	"	1	"	"	2	2	"	"	"	"	"	1	1	5	1	"	"	1	"	"	"	"	"	18	
Do. Small	"	13	4	2	5	"	4	"	"	"	4	7	2	2	6	1	14	2	"	2	1	"	"	1	"	"	70	
Compasses, Prismatic	"	1	"	1	1	"	3	"	1	"	2	3	2	2	"	1	2	3	"	3	1	"	2	1	"	"	29	
Do. Beam	"	1	"	1	"	"	"	"	"	"	1	3	"	"	"	"	"	"	"	"	"	"	"	"	"	"	6	
Do. Pocket	"	"	"	"	"	"	"	4	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	"	5	
Do. Napier or Comprehensive	1	"	"	1	"	"	"	"	1	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	4	
Do. Proportional	"	"	"	"	"	"	"	"	1	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	"	3	
Do. Brass, fine, point 4", 5", 7", 6"	"	6	"	"	"	"	"	"	"	"	"	9	"	"	"	"	"	"	"	"	"	"	"	"	"	"	15	
Eidographs, Complete	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	
Holtzapffel's Scales — Sets	"	"	"	"	"	"	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	
Levelling Instruments Y	1	"	1	2	"	"	"	1	"	"	1	1	"	"	"	1	"	"	"	"	"	3	"	"	"	"	11	
Do. Do. Troughton Do. Do. Dumpy	1	3	4	"	2	"	2	1	1	"	"	1	"	1	"	1	3	1	"	2	2	"	"	"	"	"	25	
Do. Do. Water	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	1	
Lines, Log	"	"	"	"	"	"	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	
Mathematical Tables (Hutton's)	1	"	"	1	1	"	"	"	"	"	"	3	"	"	"	1	"	"	"	"	"	"	"	"	"	"	7	
Do. Inst. Boxes, brass bound	1	3	"	"	3	"	4	1	1	"	3	3	"	2	"	4	2	1	"	2	3	"	"	"	"	6	39	
Do. Do. Cases, Fish Skin	1	3	4	"	3	"	"	"	"	"	2	5	2	"	"	"	9	2	"	2	"	"	"	1	"	12	46	
Do. Do. Do. 2d. Sort	"	8	"	"	5	"	"	6	"	"	"	10	"	"	4	"	"	"	"	"	"	"	"	"	"	"	33	
Parallel Rulers, Ebony	"	19	4	1	18	"	6	3	2	"	4	30	"	"	7	4	3	3	"	"	4	"	"	"	"	12	120	
Do. Do. Rolling, Brass	3	3	"	"	3	"	"	"	"	"	"	11	"	"	"	"	"	"	"	"	"	"	"	"	"	"	20	
Perambulators	"	"	"	"	2	1	1	"	"	"	"	1	"	"	"	1	1	"	"	"	"	"	"	"	"	"	7	
Pentagraphs	"	1	"	"	"	"	"	"	"	"	"	1	"	"	"	1	"	"	"	"	"	"	"	"	"	"	3	

Continued

Names of Articles	Arcot North	Arcot South	Bellary	Canara	Chingleput	Coimbatore	Cuddapah	Ganjam	Godavery	Kistnah	Kurnool	Madras	Madura	Malabar	Nellore	Salem	Tanjore	Tinnevelly	Trichinopoly	Vizagapatam	Ind. Ellore Canal	Mysore	Civil Engr. College	[illegible]	H. Chief Engr.	Office Superintending Engineers	Total	Remarks
Plane Tables	"	"	"	"	"	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	
Plotting Scales — sets	1	4	"	"	3	"	"	"	1	"	"	5	"	"	2	2	"	"	"	"	"	"	"	"	"	"	18	
Pocket Sextant	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	"	"	"	1	
Protractors, Ivory	"	"	"	"	"	"	"	4	"	"	"	8	"	"	"	"	"	"	"	"	"	"	"	"	"	"	12	
Do Circular, Brass	"	1	"	1	"	"	"	"	2	"	1	1	"	"	1	"	"	"	"	"	"	"	"	"	"	"	7	
Plain Guages	"	"	"	2	4	18	"	11	"	"	2	"	2	2	1	"	"	"	2	2	"	"	"	"	"	"	45	
Rules Parallel, 3 ft	"	4	"	"	3	"	"	"	"	"	"	1	"	"	"	1	"	"	"	"	"	"	"	1	"	"	10	
Scales, Marquois — sets	1	6	"	1	3	"	"	"	"	"	"	3	"	1	2	1	"	"	"	2	2	1	"	1	"	"	24	
Spare Drawing Pins, steel	"	18	"	"	12	8	"	"	"	"	"	19	"	4	"	"	"	"	"	"	"	"	"	"	"	"	61	
Squares, Optical	"	"	"	"	3	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	4	
Do T	"	"	"	"	3	"	"	"	2	"	"	4	"	"	2	1	"	"	"	"	"	"	"	"	"	"	12	
Staves sets Levelling	3	18	8	4	4	"	6	2	2	"	"	3	"	2	2	"	6	2	"	"	6	"	"	"	"	"	70	
Straight Edges, Brass, 3 feet	"	1	"	1	1	"	"	"	"	"	1	4	"	"	"	"	"	"	"	"	"	"	"	"	"	"	0	
Tapes, Measuring	3	12	"	4	11	"	"	"	1	"	6	1	2	1	4	1	5	"	"	"	2	2	8	2	"	"	70	
Telescopes	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	
Theodolites complete 7 inches	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"		
Do Do 5 Do	"	"	"	1	1	"	"	"	"	"	"	3	"	1	1	"	"	"	"	"	"	"	"	"	"	"	7	
Tracing Glasses	"	"	"	"	"	"	"	"	"	"	"	1	"	1	"	"	"	"	"	"	"	"	"	"	"	"	2	
Curves in Boxes — sets	"	"	"	"	1	"	"	"	"	"	"	2	"	"	1	"	"	"	"	"	"	"	"	"	"	"	4	
Gunter's Sliding rules	"	"	"	"	"	"	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	
Thermometers	"	"	"	"	1	2	"	"	"	"	"	2	"	"	"	2	"	"	"	"	"	"	"	"	"	"	7	

Central Office of P.W.
Fort Saint George
15th December 1858.

Lieut. Colonel
Officiating Chief Engineer

Compd.

Statement showing the Issues of Machinery to the Different Districts from the 1st May 1857 to the 30th April 1858.

Names of Articles	Arcot North	Arcot South	Bellary	Canara	Chingleput	Coimbatore	Cuddapah	G. C. Canal	Ganjam	Kistnah Dist.	Kurnool	Madura	Malabar	Nellore	Rajahmundry	Salem	Tanjore	Trichinopoly	Tinnevelly	Vizagapatam	Gunpowder Agt.	Mint Madras	Arsenal	Total	Remarks
Apparatus, Boring ___ Sets	"	"	1	"	1	"	"	"	1	"	"	"	"	1	"	"	3	"	"	"	"	"	"	7	
Blocks Iron single 6 Inches	2	1	6	"	2	6	"	1	1	"	1	1	"	"	"	1	"	"	1	"	"	"	"	25	
___ Do. ___ Do. double 6 ___ Do.	1	1	6	"	2	6	"	1	1	2	1	1	"	"	"	1	"	"	1	"	"	"	"	24	
___ Do. ___ Do. Treble 6 ___ Do.	1	1	6	"	"	6	"	1	1	2	1	1	"	"	"	"	"	"	1	"	"	"	"	21	
___ Do. ___ Do. Snatch 14 ___ Do.	3	1	6	"	2	6	"	2	2	4	2	2	"	"	"	"	"	"	2	"	"	"	"	32	
Circular Saw Tables ___ Sets	1	"	1	"	"	1	"	"	"	"	1	"	"	1	"	1	1	"	1	"	1	"	"	9	
Crabs Iron single	2	"	2	"	"	1	"	"	"	"	1	1	"	"	"	"	"	"	1	"	"	"	"	8	
___ Do. ___ Do. double	"	"	1	"	1	1	"	"	"	2	"	1	"	"	"	"	"	"	"	"	"	"	"	6	
Cranes Transportable ___ Sets	1	"	1	"	"	1	"	1	"	"	1	"	"	"	"	"	"	1	"	1	"	"	"	7	
Engine Steam Portable 5 H. Power	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	1	
Jack Screws	1	1	1	"	1	2	"	1	"	2	1	"	"	1	"	"	"	"	2	"	"	"	"	13	74
Machines, Brick Moulding	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	3	"	"	"	"	"	"	"	4	
Mills Pug	"	"	"	"	"	"	"	"	"	"	"	"	"	1	"	3	"	"	"	"	"	"	"	4	
Machines Punching and Shearing	1	"	1	"	"	"	"	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	3	
Plate screw with Taps, Large	1	1	1	"	1	1	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	6	
___ Do. Do. ___ Do. ___ Do. Small	1	"	1	"	"	1	"	"	"	1	"	"	"	"	"	"	"	"	"	"	"	"	"	4	
Pumps Portable	"	"	2	"	1	"	"	1	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"	6	
Rails Iron Bridge of 12 feet	5250	5250	"	"	"	4992	"	"	"	3974	3110	"	"	2240	"	"	"	"	4992	"	"	"	"	49928	Running feet
___ Do. ___ Do. ___ Do. of 11 ___ Do.	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
___ Do. ___ Do. ___ Do. of 8 ___ Do.	"	"	"	"	"	8	"	"	"	11	"	"	"	"	"	"	"	"	8	"	"	"	"	732	
Tools Carpenters ___ Sets	1	1	2	"	2	2	"	1	1	"	1	1	"	"	"	1	"	"	2	"	"	"	14	29	
Peat Machine for Compressing	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	

Central Office of P.W.
Fort Saint George
15th December 1858

C. Lawford Lieutt. Colonel
Officiating Chief Engineer

153

compd. [illegible]

Enclosure No. 6

No. Letter from the Officiating
Chief Engineer

To
The Secretary
to Government N.W.P.

Dated 16th } December 1858
Received 17th }

No. 6357

P.W. 2079/58

Statements showing the issues of Mathematical, Scientific and drawing Instruments, Tools, Implements, and Machinery &c. to the different Districts from 1st May 1857 to 30th April 1858.

Re

Distr

Enclosure No. 6

To Letter from the Officiating Chief Engineer

To
The Secretary
to Government P.W.D.

Dated 16th } December 1858.
Received 17th }

No. 6357

P.W. 2079/58

Statements showing the issues of Mathematical, Scientific and drawing Instruments, Tools, implements, and Machinery &c. to the different Districts from 1st May 1857 to 30th April 1858.

Report of the State of Audit in the Chief Engineers Office for the Year 1857/58.

District	Bills remaining on the 1st May 1857.		Bills received during the Official year 1857/58.		Total.		Bills passed by the Chief Engineer		Bills recommended to Government		Bills returned.		Total.		Bills remaining on the 1st May 1858.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount	No.	Amount.	No.	Amount	No.	Amount	No.	Amount
1.	2	3	4	5	6	7	8	9	10	11.	12	13	14	15.	16	17
Ganjam	7	8,553 3 7	312	2,46,427 11 6	319	2,54,980 15 1	27	50,833 3 8	″	″ ″ ″	13	53,463 7 2	40	1,04,296 10 10	279	1,50,684 4
Vizagapatam	16	44,021 1 4	69	1,80,254 8 6	85	2,24,275 9 10	16	44,021 1 4	″	″ ″ ″	1	589 14 6	17	44,610 15 10	68	1,79,664 10
Rajahmundry	8	5,13,178 10 11	464	14,78,057 4 4	472	19,91,235 15 3	86	4,25,049 11 8	″	″ ″ ″	″	″ ″ ″	86	4,25,049 11 8	386	15,66,186 3
Masulipatam	156	2,05,062 11 ″	301	12,44,165 6 3	457	14,49,228 1 3	158	10,33,749 2 9	9	60,745 6 7	13	30,479 ″ 2	180	11,24,974 9 6	177	3,24,253 7
Guntoor	32	1,71,565 9 4	306	2,22,183 1 10	338	3,93,748 11 2	196	2,98,762 8 3	10	1,818 9 1	4	1,676 10 2	210	3,02,257 11 6	128	91,490 15
Nellore	17	22,295 11 9	103	4,07,246 10 7	120	4,29,542 6 4	3	506 8 6	2	1,301 15 3	13	20,506 12 ″	18	22,315 3 9	102	4,07,227 2
Cuddapah	24	5,768 3 ″	392	4,56,700 11 11	416	4,61,868 14 11	197	35,627 12 8	1	153 12 ″	50	38,584 ″ 7	248	74,365 9 3	168	3,87,503 5
Bellary	5	728 9 8	313	4,99,230 ″ 4	318	4,99,958 10 ″	41	1,04,518 4 5	4	257 11 3	21	1,282 6 9	66	1,06,058 6 5	252	3,93,900 3
Canara	″	″ ″ ″	123	2,64,451 13 7	123	2,64,451 13 7	7	4,907 3 8	2	94 6 8	30	31,692 15 8	39	36,694 10 ″	84	2,27,757 3
Kurnool	14	46,582 9 5	89	1,32,939 15 10	103	1,79,522 9 3	61	1,59,925 12 10	3	361 4 ″	2	3,537 2 10	66	1,63,[illegible] 3 8	37	15,698 5
North Arcot	20	14,126 9 10	420	3,75,417 2 6	440	3,89,543 12 4	12	10,313 15 7	″	″ ″ ″	13	6,882 14 3	25	17,196 13 10	415	3,72,346 14
Chingleput	23	59,212 ″ 7	441	4,50,470 11 9	464	5,09,682 12 4	103	31,616 9 ″	1	848 10 6	120	1,47,559 1 7	224	1,80,024 5 1	240	3,29,658 7
South Arcot	4	83,074 10 5	227	7,08,454 15 8	231	7,91,529 10 1	114	3,83,578 5 11	1	43 10 8	13	1,32,912 11 5	128	5,16,534 11 7	103	2,74,994 14
Salem	2	4,222 4 5	473	1,52,430 10 5	475	1,56,652 14 10	114	66,797 6 8	6	2,171 2 4	13	15,829 6 6	133	84,797 15 6	342	71,854 15
Tanjore	″	″ ″ ″	85	6,68,983 6 8	85	6,68,983 6 8	67	4,47,845 5 5	2	182 12 1	13	2,18,397 12 7	82	6,66,425 14 1	3	2,557 8
Malabar	5	1,647 9 4	250	2,04,486 1 11	255	2,06,133 11 3	109	63,509 11 7	20	2,183 10 6	15	19,710 4 9	144	85,703 10 10	111	1,20,430 ″
Coimbatore	17	26,973 14 9	459	10,55,022 5 7	476	10,81,996 4 4	152	3,82,226 14 9	6	6,391 11 10	33	52,808 11 ″	191	4,41,427 5 7	285	6,40,568 14
Madura	2	13 12 ″	153	1,67,612 5 4	155	1,67,626 1 4	54	85,734 2 2	1	324 4 ″	17	21,076 11 ″	72	1,07,135 1 2	83	60,491 ″
Tinnevelly	14	22,064 6 8	66	2,52,455 ″ 7	80	2,74,519 7 3	35	1,23,289 2 1	1	2,022 1 2	3	2,610 2 7	39	1,27,921 5 10	41	1,46,598 1
Civil Architect	30	40,039 9 3	613	4,08,483 5 3	643	4,48,522 14 6	218	1,97,151 3 2	205	64,395 11 1	9	4,977 11 8	432	2,66,524 9 11	211	1,81,998 4
Eastern Coast Canal	6	30,807 ″ 11	19	4,02,657 7 8	25	4,33,464 8 7	9	1,92,777 10 9	6	30,807 ″ 11	6	1,89,096 7 9	21	4,12,681 3 5	4	20,783 5
Mysore	40	25,979 7 1	105	1,78,659 13 5	145	2,04,639 4 6	40	89,914 ″ 4	18	13,641 6 10	32	21,791 ~~7 9~~	~~90~~	1,95,346 14 11	46	79,202 5
Hyderabad	8	8,958 11 11	45	10,01,051 12 ″	53	10,10,010 7 11	20	5,87,939 4 1	3	2,148 8 10	4	458 2 3	27	5,90,545 15 2	26	4,19,464 8
Saugor	8	7,123 3 4	1	38 6 11	9	7,161 10 3	″	″ ″ ″	8	7,123 3 4	″	″ ″ ″	8	7,123 3 4	1	38 6
Jaulnah	″	″ ″ ″	5	764 8 10	5	764 8 10	5	764 8 10	″	″ ″ ″	″	″ ″ ″	5	764 8 10	″	″ ″
Upper Godavery	″	″ ″ ″	21	1,31,257 14 6	21	1,31,257 14 6	″	″ ″ ″	9	2,214 5 3	8	1,17,870 6 5	17	1,20,084 11 8	4	11,173 2
Garrison Engineer	″	″ ″ ″	112	1,61,137 3 6	112	1,61,137 3 6	47	1,12,360 8 3	14	21,359 4 7	3	7,612 6 4	64	1,41,332 3 2	48	19,805 ″
Trichinopoly	″	″ ″ ″	151	3,61,643 14 3	151	3,61,643 14 3	37	94,293 3 7	2	961 8 5	25	94,824 1 5	64	1,90,078 13 5	87	1,71,565 ″
Tonghoo	″	″ ″ ″	1	100 ″ ″	1	100 ″ ″	″	″ ″ ″	″	″ ″ ″	1	100 ″ ″	1	100 ″ ″	″	″ ″
Total	458	13,41,399 10 6	6119	1,18,12,784 7 5	6577	1,31,54,184 1 11	2037	50,18,014 5 11	334	2,21,852 ″ 9	475	12,36,330 13 1	2846	64,86,197 3 9	3731	66,67,986 14 2.

Central Office of P.W. }
Fort Saint George }
16th December 1858 }

Lieut. Colonel
Officiating Chief Engineer

Compd.

Enclosure No. 3

In letter from the Officiating
Chief Engineer

To
The Secretary
to Government D. P. W.

Dated 16th } December 1858.
Received 17 }

No. 635

P.W. 3079/58

Statement of Traffic showing the number of Boats &ca passed through the Locks in the Godavery and Kistnah Divisions and also the East Coast Canal for the Year 1857/58. —

Enclosure No. 4

In Letter from the Officiating
Chief Engineer

To, The Secretary
to Government D.P.W.

Dated 16th }
Received 17 } December 1858

No. 6359

P.W. 3079/58

Statement shewing the
Financial results of remunerative
Works exceeding in cost 10,000 Rupees
each in the Presidency of Madras for
the Official Year 1856/57 —

Statement shewing the financial results of remunerative works Exceeding in Cost Rupees 10,000 each the Presidency of Madras for the Official year 1856/57.

			Rs	a	p
Kistnah Division	Kistna Annicut	Total Amount of interest due upon the Construction Charges Rs. 7,72,186 - " - " incurred upto the end of the previous year at the fixed rate of 4 per Cent	54,582	11	8
		Amount of interest due on the construction charges incurred for the year for which the account is rendered at the fixed rate of 4 per Cent	30,887	7	2
		Charges for maintenance, renewals &c. upto the end of the previous year	8962	-	4
	Poollair Channel from Bezoarah to Putamata	Total Amount of interest due upon the Construction Charges Rupees 71,715 incurred upto the end of the previous year at the fixed rate of 4 per Cent	5,737	3	2
		Amount of interest due on the construction Charges incurred for the year for which the account is rendered at the fixed rate of 4 per Cent	2,868	9	7
		Charges for maintenance, renewals &c. up to the End of the previous year	7,709	10	6
		Do. Do. of the year for which the account is rendered	5,399	11	8
	Poollair Channel from Putumuta to Weyoor and Constructing Lock and Calingulah at Cuntepaud	Total Amount of interest due upon the Construction Charges Rupees 89,723 - " - " incurred upto the End of the previous year at the fixed rate of 4 per Cent	2,817	3	10
		Amount of interest due upon the construction Charges incurred for the year for which the amount is rendered at the fixed rate of 4 per Cent	3,588	14	9
		Carried Over	1,22,553	11	2

Total receipts up to the end of the previous year	102,739
Total receipts on account of the year for which the Account is rendered	106,376
Carried Over	209,115

			Rs.	As.	Ps.
		Brought Over	1,22,553	11	2
		Charges for maintenance, renewals &c. upto the end of the previous year	8,830	"	"
		D° D° of the year for which the account is rendered	10,925	12	10
Boodamair channel from Mootatumpand to Casarapilly	Kistnah Division	Total Amount of interest due upon the Construction Charges Rupees 41,969-"-" incurred upto the end of the previous year at the fixed rate of 4 per Cent	1,585	12	1
		Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	1,678	12	2
		Charges for maintenance, renewals &c. upto the end of the previous year	9,671	"	11
		D° D° of the year for which the Account is rendered	842	1	"
Cutting a Channel to divert a portion of the Course of Boodamair River and constructing an aqueduct to carry it Ellore High Level Channel.		Total Amount of interest due upon the Construction Charges Rupees 25430-"-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	"	"	"
		Amount of interest due on the Construction Charges incurred for the year for which the account is rendered at the fixed rate of 4 per Cent	1,017	3	2
upedavoy or Eastern Bank Channel		Total Amount of interest due upon the Construction Charges Rupees 24,487 incurred upto the end of the previous year at the fixed rate of 4 per Cent	"	"	"
		Amount of interest due on the construction Charges incurred for the year for which the Account is rendered at D°	979	7	8
		Charges for maintenance, renewals &c. of the year for which the Account is rendered	1,590	"	"
		Carried Over	1,59,673	13	"

	Rs.	As.	Ps.
Brought Over	2,09,115	[illegible]	
Carried Over	2,09,115	"	

		Brought Over	1,59,673	13	"
Toongabudra Channel		Total Amount of interest due upon the Construction Charges Rupees 57,460 incurred up to the end of the previous year at the fixed rate of 4 per Cent	4,256	12	10
		Amount of interest due on the construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	2,298	6	5
		Charges for maintenance, renewals &ca up to the end of the previous year	2,090	"	"
		Do Do of the year for which the account is rendered	3,763.	12.	"
Vullabhapooram Channel	Kistnah Division	Total Amount of interest due upon the Construction Charges Rupees 14,332 incurred up to the end of the previous year at the fixed rate of 4 per Cent	22.	2.	7.
		Amount of interest due, on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	573	4	6.
		Charges for maintenance, renewals &ca up to the end of the previous year	761	11.	11.
Nizampatam Channel		Total Amount of interest due upon the Construction Charges Rupees 115,539 incurred up to the end of the previous year at the fixed rate of 4 per cent	2184	15	3
		Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	4,621	8	11
		Charges for maintenance, renewals &ca up to the end of the previous year	230	"	"
		Do Do of the year for which the Account is rendered	4,882	12	1
		Total Rupees	185,359	3	6

Brought Over	209,115	8 ..
Total Rupees	209,115.	..

Pennar Annicut	Nellore	Total Amount of interest due upon the Construction Charges Rupees 93,106. 1-11- incurred up to the end of the previous year at the fixed rate of 4 per Cent	3,724.	3	11
		Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at 4 per Cent	3,724	3	11
		Amount of interest D: D: Rs 15,623. 14-11- incurred during the year for D: D:	624	15	4
		Charges for Maintenance, renewals &ca up to the End of the previous year	6,364	7	4
		D: D: for the year for which the Account is rendered	1,056.	"	"
		Total Rupees	15,493	14	6
Palaur Annicut	South Arcot	Total Amount of interest due upon the Construction Charges Rupees 231,872. 8. 4. incurred up to the end of the previous year at the fixed rate of 4 per Cent	11,354	13.	1.
		Amount of Interest due on the construction Charges Rupees 219,256- 1- 2. incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	8770	3	10
		Charges for Maintenance renewals &c: up to the end of the previous year	632.	"	"
		D: D: for the year for which the Account is rendered	474	"	"
		Total Rupees	21,231	"	11
Ponnay Anicut		Total Amount of interest due upon the Construction Charges Rupees 15,874-1-5. incurred up to the end of the previous year at the fixed rate of 4 per Cent	634	15	5
		Carried Over	634	15	5

Pennar Anicut	Total receipts up to the end of the previous year	19,608	14	8
	Total receipts on account of the year for which the account is rendered	21,088.	"	1
	Total Rupees	40,696	14.	9
Palaur Annicut	Total receipts up to the end of the previous year	15,804-	"	"
	Total receipts on account of the year for which the Account is rendered	17,414.	"	"
	Total Rupees	33,218.	"	"
Ponnay anicut	Total receipts up to the End of the previous year	22,818.	"	"
	Total receipts on account of the year for which the account is rendered	25,889	"	"
	Carried Over	48,707.	"	"

	Brought Over	634	15	5
North Arcot	Amount of interest due upon the Construction Charges Rupees 30,635. 1 – " incurred for the year for which account is rendered at the fixed rate of 4 per Cent	1,225	6	5
	Charges for Maintenance, renewals &ca. up to the end of the previous year	250	"	"
	Do. Do. for the year for which the Account is rendered	750	"	"
	Total Rupees	2,860	5	10
leroon River wer anicut South Arcot	Total amount of interest due upon the construction Charges of Rupees 1,29,050-10-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	98,078	7	7
	Amount of interest due on the construction Charges incurred for the year for which the account is rendered at the Do. Do.	5,162	"	4
	Charges for Maintenance renewals &ca. up to the end of the previous year	3,66,874	4.	10
	Do. Do. for the year for which the Account is rendered	31,422.	11.	2
	Total Rupees	5,01,537	7	11
laur anicut	Total Amount of interest due upon the Construction Charges of Rs. 94,036-9-1 incurred up to the end of the previous year at the fixed rate of 4 per Cent	30091.	11	2
	Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	3,761.	7	5
	Charges for Maintenance, renewals &ca. up to the end of the previous year	74,313.	11.	3
	Do. Do. for the year for which the Account is rendered	24,855	5	8
	Total Rupees	133,022	2.	6

	Brought Over	48,707		
	Total Rupees	48,707	"	"
Coleroon River Lower anicut	Total Receipts up to the end of the previous year	44,09,816.	"	"
	Total Receipts on account of the year for which the Account is rendered	3,31,201	"	"
	Total Rupees	47,41,017	"	"
Vellaur anicut	Total Receipts up to the end of the previous year	5,45,704	"	"
	Total Receipts on account of the year for which the Account is rendered	62,728	"	"
	Total Rupees	6,08,432	"	"

Ragavyen Voikal	Total Amount of interest due upon the Constuction Charges of Rupees 13602-12.7. incurred up to the end of the previous year at the fixed rate of 4 per Cent	4,352	14	2.
	Amount of interest due on the construction Charges incurred for the year for which the Amount is rendered at the fixed rate of 4 per Cent	544.	1	9
	Charges for maintenance, renewals &c. up to the end of the previous year	2,204.	6	9
	D° D° for the year for which the Account is rendered	2,527.	14	9
	Total Rupees	9629.	5.	5.
Trivandyamint South Arcot	Total Amount of interest due upon the Constuction Charges of Rupees 13,729. 2. 5. incurred up to the end of previous year at the fixed rate of 4 per Cent	4,398	5.	4
	Amount of interest due on the Construction Charges incurred for the year for which the account is rendered at the fixed rate of 4 per Cent	549.	2.	8.
	Charges for maintenance renewals &c. up to the end of the previous year	881	"	8
	D° D° for the year for which the Account is rendered	87	9	6
	Total Rupees	5,914	2	2

Ragavyen Voikal	Total receipts up to the end of the previous year	1,74,665.	"	"
	Total receipts on account of the year for which the account is rendered	30,224.	"	"
	Total Rupees	2,04,889	"	"
Trivandyamint	Total Receipts up to the end of the previous year	1,85,870.	7.	8
	Total Receipts on account of the year for which the account is rendered	24,206.	12.	4.
	Total Rupees	2,10,077.	4.	4

			Rs	As	Ps
Upper Coleroon Anicut		Total Amount of Interest due upon the Construction Charges Rs 2,39,865-8-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	1,43,940-	6	"
		Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	9,594-	10	"
		Charges for Maintenance, renewals &c up to the previous year	1,05,730	11	"
		Do Do of the year for which the Account is rendered	13,924-	15	"
		Total Rupees	2,73,190-	10-	"
Lower Coleroon Anicut and South Raja Voikal	Tanjore	Total Amount of interest due upon the Construction Charges Rupees 73739-13-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	43,724	12	"
		Amount of interest due on the Construction Charges incurred for the year for which the account is rendered	2,947	9	"
		Amount of interest due on the Construction Charges Rs 139233-14-" incurred during the year for which the account is rendered at the fixed rate of 4 per Cent	5,529	5	8.
		Total Rupees	1,21,561.	7	8.
Chillumai Anicut across Vighay River	Madura	Total Amount of interest due upon the Construction Charges Rupees 15,995-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	13,672	7	9
		Carried Over	13,672	7	9

		Rs	As	Ps
Upper Coleroon Anicut	Total Receipts up to the end of the previous year	5,73,636	"	"
	Total Receipts on account of the year for which the Account is rendered	8,02,515	"	"
	Total Rupees	13,76,151	"	"
Lower Coleroon Anicut	Total Receipts up to the end of the previous year	2,53,716-	1-	"
	Total Receipts on account of the year for which the Account is rendered	17,624-	9	"
	Total Rupees	2,71,340	10	"
Chillumai Anicut across Vigay River	Total Receipts up to the End of the previous year	1,02,004	"	"
	Total Receipts on account of the Year for which the account is rendered	3,453	"	"
	Carried Over	1,05,457	"	"

		Brought Over	13,672	7	8
	Madura	Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	639	12	10
		Charges for Maintenance, renewals &ca up to the end of the previous year	17,026.	"	"
		D° D° of the year for which the Account is rendered	144.	"	"
		Total Rs	31,482	4	7
Comenpallicin Dam and Watercourse	Coimbatore	Total Amount of interest due upon the construction Charges Rupees 42970-"-" incurred up to the end of the previous year at the fixed rate of 4 per Cent	48,126	6	4
		Amount of interest due on the construction Charges incurred for the year for which the Account is rendered at D°	1,718	12	9
		Charges for maintenance renewals &c. up to the end of the previous year	9,439	11	9
		D° D° of the year for which the Account is rendered	389.	12	9.
		Total Rupees	59,674	11	7
Comptah and Dharwar line	Canara	Total Amount of interest due upon the construction Charges Rupees 2,32847-1-11 incurred up to the end of the previous year at the fixed rate of 4 per Cent	9,313	14	1.
		Amount of interest due on the construction Charges incurred for the year for which the Account is rendered at 4 per Cent	9,313	14	1.

	Brought Over	1,05,457		
	Total Rupees	1,05,457	"	"
Comenpollicin Dam and Watercourse	Total Receipts up to the end of the previous year	28,620.	5	7
	Total Receipts on account of the year for which the Account is rendered	916.	"	6
	Total Rupees	29,536.	6	1
Comptah and Dharwar line	Total Receipts up to the end of the previous year	8,098	14	3.
	Total Receipts on account of the year for which the account is rendered	3,328.	2	"
	Total Rupees	11,427	"	3

Chowghaut Yennamakul Dam	Total Amount of interest due upon the Construction Charges Rupees 30,879-12-11- incurred up to the end of the previous year at the fixed rate of 4 per Cent	14,822	4	11
Malabar	Amount of interest due on the Construction Charges incurred for the year for which the Account is rendered at the fixed rate of 4 per Cent	1235	3	1
	Charges for Maintenance, renewals &c. up to the End of the previous year	13,910.	"	9
	D.º D.º of the year for which the Account is rendered	463.	6.	2
	Total Rs.	30,430	14.	11
East Coast Canal	Total Amount of interest due on the Construction Charges Rupees 3,74,581- " -" incurred up to the End of the previous year at the fixed rate of 4 per Cent	14,983.	3.	10
	Amount of interest due on the construction Charges for the year for which the account is rendered at the fixed rate of 4 per Cent	14,983.	3-	10-
	Amount of interest due on the Construction Charges R.s 93,018-"-" incurred during the year for which the Account is rendered at the fixed rate of D.º	3,720	11-	6
	Charges for maintenance, renewals &c.a up to the End of the previous year	1,28,478	9	1
	D.º D.º for the year for which the account is rendered	4,472	"	"
	Total Rupees	1,66,637	12	3

Central Office of P.W.
Fort St. George
9th September 1858

Comp. AK

Chowghaut Yennamakul Dam	Total Receipts up to the End of the previous year	25,744-	12	9
	Total Receipts on account of the year for which the account is rendered	2,724	9	5
	Total Rupees	28,469	6-	2.
East Coast Canal	Total Receipts up to the End of the previous year	5,40,307	14	8
	Total Receipts on account of the year for which the account is rendered	25,486.	2	"
	Total Rupees	5,65,794	.	8

(Signed) C. Lawford Major
Officiating Chief Engineer

"True Copy"

C Lawford Lieut. Colonel
Officiating Chief Engineer

P.W.D

No 677

27

Enclosure No 2

In letter from the Officiating
Chief Engineer

To
The Secretary
to Government P.W.

Dated 16th }
Received 17 } December 1858

No 6359.

P.W. 3079/58

Statements of Toll collections
&c connected with Cochranes Canal
for the Official Year 1857/58. —

-ously submitted by the Chief
No 1497. Engineer to meet the requisition
of the Supreme Government.
Lu

Table A

Comparative Statement of Toll Collections for the Official years 1856/57 and 1857/58.

Charge	1856/57			1857/58			Increase			Remarks
	Boats	Tons	Toll	Boats	Tons	Toll	Boats	Tons	Toll	
			Rs. A.			Rs. A.			Rs. A.	
Miscellaneous Produce	6847	61,719	18,429 12	6909	75,058	18,764 8	62	13,339	3,334 12	
Sail	2440	43,748½	7,937 2	2415	54,585	13,646 4	25	10,836½	5,709 2	
Total	9287	1,05,467½	26,366 14	9,324	1,29,643	32,410 12	37	24,175½	6,043 14	

(Signed) F. J. Moberly Lieut.
Supdt. of the E. C. Canal.

E. C. Canal
Supdt's Office
Camp Kurnal,
28th May 1858.

(True Copy)

Officiating Chief Engineer

Table C

Statement shewing the number of Boats, Tonnage, and the Amount of Toll collected on each sort of Goods which arrived at the Basin from each Village by Cochrane's Canal during the Official Year 1857/58 —

Names of Villages	Wood			Faggots			Shells			Salt			Grain			Miscellaneous produce			Total No. of Boats	Their Tonnage	Amount of Toll paid at Madras
	Boats	Tons	Toll	Boats	Tons	Toll	Boats	Tons	Toll	Boats	Tons	Toll	Boats	Tons	Toll	Boats	Tons	Toll			
Athepett	"	"	"	"	"	"	"	"	"	761	15,068	4,517 "	"	"	"	5	5	1 4	766	15,073	4,518 4
Arrumbaukum	"	"	"	115	2373	593 4	248	5330	1332 8	"	"	"	"	"	"	29	148	37 "	392	7851	1,962 12
Arrungum	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	24	6 "	2	24	6 "
Baumerpaulum	"	"	"	112	2293	573 4	27	480	120 "	"	"	"	"	"	"	36	161	40 4	175	2934	733 8
Coromandel	9	19	4 12	136	353	88 4	142	340	85 "	"	"	"	"	"	"	206	365	91 4	493	1,077	269 4
Cubbal Streeharicottah	324	6,664	1,666 "	399	9,829	2,457 4	"	"	"	"	"	"	"	"	"	50	570	142 8	773	17,063	4,265 12
Carungal	5	5	1 4	"	"	"	4	4	1 "	"	"	"	"	"	"	34	38	9 8	43	47	11 12
Chindamoney Covil	2	2	" 8	"	"	"	"	"	"	"	"	"	"	"	"	34	41	10 4	36	43	10 12
Cullore	"	"	"	5	23	5 12	9	10	2 8	"	"	"	"	"	"	"	"	"	14	33	8 4
Chunamcolum	"	"	"	"	"	"	2	15	3 12	"	"	"	"	"	"	6	30	7 8	8	45	11 4
Calangy	"	"	"	"	"	"	9	25	6 4	"	"	"	"	"	"	4	17	4 4	13	42	10 8
Cantorpully	"	"	"	"	"	"	32	47	11 12	"	"	"	1	4	1 "	6	21	5 4	39	72	18 "
Catevauck	"	"	"	"	"	"	1	1	" 4	"	"	"	"	"	"	12	17	4 4	13	18	4 8
Curnicaudoo	"	"	"	1	1	" 4	"	"	"	"	"	"	"	"	"	"	"	"	1	1	" 4
Cummarpaulum	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	7	1 12	1	7	1 12
Doogoorazpatam	11	267	66 12	1	28	7 "	"	"	"	"	"	"	5	78	19 8	104	893	223 4	121	1266	316 8
Ennore	1	5	1 4	"	"	"	21	21	5 4	407	9,578	2,379 8	"	"	"	220	283	70 12	649	9,827	2,456 12
Elloor	126	2,796	699 "	16	370	92 8	"	"	"	"	"	"	7	161	40 4	11	183	45 12	160	3,570	877 8
Elluwoor	3	71	17 12	"	"	"	128	2,299	574 12	"	"	"	"	"	"	"	"	"	131	2,370	592 8
Poondall	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	15	3 12	1	15	3 12
Irakum	"	"	"	"	"	"	314	5,863	1,465 12	"	"	"	"	"	"	12	30	7 8	326	5,893	1,473 4
Kooreevellittoo	"	"	"	"	"	"	223	4,106	1,026 8	"	"	"	"	"	"	"	"	"	223	4,106	1,026 8
Kondoorpaulem	2	35	8 12	1	20	5 "	"	"	"	"	"	"	5	66	16 8	48	608	152 "	56	729	182 4
Kingeely	"	"	"	1	12	3 "	"	"	"	"	"	"	"	"	"	11	102	25 8	12	114	28 8
Mathoorpaulum	1	1	" 4	5	94	23 8	237	3,858	964 8	"	"	"	"	"	"	5	47	11 12	248	4,000	1000 "
Mangodoo	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	10	26	6 8	10	26	6 8
Moonapaulum	"	"	"	1	26	6 8	"	"	"	"	"	"	"	"	"	9	19	4 12	10	45	11 4
Nattalalittoo	"	"	"	"	"	"	8	8	2 "	"	"	"	"	"	"	1	26	6 8	9	34	8 8
Naccathoorooroo	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	2	19	4 12	2	19	4 12
Omah Samoodrum	"	"	"	"	"	"	36	411	102 12	"	"	"	"	"	"	"	"	"	36	411	102 12
Pulicat	1	1	" 4	"	"	"	20	99	24 12	"	"	"	24	85	21 4	2,176	2,386	596 8	2,221	2,571	642 12
Poozhtheevaukum	"	"	"	1	21	5 4	"	"	"	384	7,600	1,900 "	"	"	"	38	42	10 8	423	7,663	1,915 12
Pumbly	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	3	18	4 8	3	18	4 8
Poondy Coopum	8	199	49 12	240	5,640	1,410 "	"	"	"	"	"	"	"	"	"	2	2	" 8	250	5,841	1,460 4
Paroombaukum	1	27	6 12	1	16	4 "	"	"	"	"	"	"	"	"	"	"	"	"	2	43	10 12
Paroovadoo	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	3	7	1 12	3	7	1 12
Pullray	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	1	" 4	1	1	" 4
Ramapooram	"	"	"	20	398	99 8	7	121	30 4	"	"	"	"	"	"	4	75	18 12	31	594	148 8
Royadooroo Poondy	20	483	120 12	8	190	47 8	"	"	"	"	"	"	"	"	"	3	30	7 8	31	703	175 12
Nossypaulum	2	56	14 "	1	29	7 4	"	"	"	"	"	"	4	4	1 "	"	"	"	7	89	22 4
Shadiencoopum	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	22	24	6 "	22	24	6 "
Sheeroombor	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	3	7	1 12	3	7	1 12
Soobah Nossypaulum	"	"	"	"	"	"	"	"	"	"	"	"	2	2	" 8	"	"	"	2	2	" 8
Tussacoopum	89	1,774	443 8	247	5,440	1,360 "	"	"	"	"	"	"	"	"	"	135	1,902	475 8	471	9,116	2,279 "
Thaulhoopollay	8	8	2 "	1	1	" 4	"	"	"	"	"	"	"	"	"	16	209	52 4	25	218	54 8
Tirrovulloor	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	1	1	" 4	1	1	" 4
Villoor	"	"	"	"	"	"	"	"	"	575	13,524	3,381 "	"	"	"	"	"	"	575	13,524	3,381 "
Veyaloor	"	"	"	"	"	"	"	"	"	288	5,875	1,468 12	"	"	"	1	3	" 12	289	5,878	1,469 8
Vanadoo	1	30	7 8	11	293	73 4	5	104	26 "	"	"	"	"	"	"	3	9	2 4	20	436	109 "
Villagalavaukum	88	2,081	520 4	18	455	113 12	"	"	"	"	"	"	10	236	59 "	65	440	110 "	181	3,212	803 "
Total	702	14,524	3,131 "	1,341	27,905	6,976 4	1,473	23,142	5,785 8	2,415	54,585	13,646 4	58	636	159 "	3,335	8,851	2,212 12	9,324	129,643	32,410 12

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Signed/ F. J. Moberly Lieut
Supdt of the E.C. Canal

E. C. Canal
Supdts Office
Camp Madras
28th May 1858.

(True Copy)
Lieut Colonel
Officiating Chief Engineer

Table D

List of Boats which carry Produce

Tonnage of Boats	Number of Boats of each kind	Total Tonnage of each kind	Increase in the Official Year 1857/58 Boats	Increase in the Official Year 1857/58 Tons
I	142	142	18	18
II	10	20	1	2
III	16	48	2	6
IV	7	28	1	4
V	11	55	1	5
VI	7	42	1	6
VII	15	105	"	"
VIII	3	24	"	"
IX	2	18	"	"
X	3	30	"	"
XI	2	22	"	"
XII	1	12	"	"
XIII	4	52	"	"
XIV	4	56	"	"
XV	6	90	"	"
XVI	32	512	2	32
XVII	15	255	1	17
XVIII	26	468	1	18
XIX	33	627	"	"
XX	22	440	"	"
XXI	21	441	"	"
XXII	16	352	"	"
XXIII	21	483	1	23
XXIV	14	336	"	"
XXV	10	250	"	"
XXVI	32	832	2	52
XXVII	22	594	6	162
XXVIII	20	560	6	168
XXIX	12	348	4	116
XXX	9	270	2	60
XXXI	3	93	1	31
XXXII	4	128	3	96
XXXIII	2	66	1	33
Total	547	7799	54	849

E. C. Canal
Supdt's Office.
Camp Madras
28th May 1858

(Signed) F. J. Moberly Lieut.
Supdt. of the E. C. Canal

"True Copy"

C. Lawford Lieut. Colonel
Officiating Chief Engineer

Table E

Statement shewing the Monthly Toll Collections on Miscellaneous Produce and Salt.

Months	Miscellaneous Produce Boats	Miscellaneous Produce Tons	Miscellaneous Produce Toll R. A.	Salt Boats	Salt Tons	Salt Toll R. A.	Total No. of Boats	Their Tonnage	Amount of Toll levied 4 annas per Ton R. A. P.
1857 May	577	6,379	1,594 12	335	7,722	1,930 8	912	14,101	3,525 4 "
June	652	7,247	1,811 12	262	6,194	1,548 8	914	13,441	3,360 4 "
July	642	7,523	1,880 12	352	8,318	2079 8	994	15,841	3,960 4 "
August	613	6,782	1,695 8	295	6,615	1,653 12	908	13,397	3,349 4 "
September	529	5,628	1,407 "	237	5,241	1,310 4	766	10,869	2,717 4 "
October	405	4,782	1,195 8	96	2,050	512 8	501	6,832	1,708 " "
November	446	5,114	1,278 8	80	1,435	358 12	526	6,549	1,637 4 "
December	488	5,947	1,486 12	122	2,725	681 4	610	8,672	2,168 " "
1858 January	572	6,704	1,676 "	61	1,299	324 12	633	8,003	2,000 12 "
February	512	6,086	1,521 8	33	528	132 "	545	6,614	1,653 8 "
March	606	6,573	1,643 4	185	4,128	1,032 "	791	10,701	2,675 4 "
April	867	6,493	1,623 4	357	8,330	2,082 8	1,224	14,823	3,705 12 "
Total	6,909	75,058	18,764 8	2,415	54,585	13,646 4	9,324	129,643	32,410 12 "

E. C. Canal Supdt's Office
Camp, Madras.
28th May 1858

(Signed) F. J. Moberly Lieut.
Supdt. of the E. C. Canal

(True Copy)

Officiating Chief Engineer

Compd.

No 677

Extract from the Minutes of Consultation
Under date the 23d March 1859 -

Read the following letter from the Offg. Chief Engineer.

(Here enter 16th December 1858 No. 6359)

P1. The Report and its Statements accompanying the above letter, are designed to shew the operations of the Department of Public Works for the Official year 1857/58 as required by paras 11 to 13 of the Rules circulated under date the 17th June 1856. The Report is a copy of the administration report previously submitted by the Chief Engineer to meet the requisition[×] of the Supreme Government.

[×] Ex: M. C. 24 Nov. 1855 Pub. No. 1497.

In

2 In the Budget of 1857/58 a sum of Rupees 64,67,784 was entered as the probable expenditure that would be required to be made during the year for works of every description, inclusive of repairs, but owing to the restrictive orders of the Government of India the actual outlay has amounted to only Rupees 40,87,025, Viz^t. Rupees 20,72,795 on account of new Works and Rs. 20,14,230 for repairs, the whole falling short of the Estimate by more than 23¾ lacs of rupees.

S. M. C 17 July 1857 No 1372.

3 This expenditure is shewn to have been on account of

	New Works Rs.	Repairs Rs.
I Irrigation Works	4,38,108.	12,70,658.
II Communications	4,96,080.	5,34,757.
III Buildings	11,38,607.	2,08,817.
Rupees	20,72,795.	20,14,230.

Under

Irrigation Works.

4 Under the first head I the chief expenditure incurred for the construction or extension of irrigation Works, or the repair of existing ones, appears in the undermentioned Divisions and Districts.

	New Works Rs.	Repairs Rs.
Ganjam	2,712	26,278
Godavery Division	152,286	305,077
Kistnah Do	82,166	123,807
Nellore	30,561	117,747
Cuddapah	20,384	35,422
Bellary	1,889	80,182
Chingleput	5,828	41,445
North Arcot	73,121	34,920
South Arcot	13,131	70,981
Tanjore	3,479	165,965
Trichinopoly	25,492	76,681
Madura	185	52,370
Tinnevelly	11,036	50,773
Coimbatore	14,426	29,366
Salem	803	42,128

Communications

5 The second head No II

comprizes the following Communications-

	New works Rs	Repairs Rs
Roads and Bridges	401287	506104.
Navigable Canals	64879	22493.
Ports and Harbors	29142	3396.
Ferry boats	772	2764.
	496080	534757.

6 The great bulk of the Expenditure was on account of Roads and Bridges, and that only will be notice-

	New works Rs	Repairs Rs
Ganjam	35304	18992.
Nellore	26061	40910.
Bellary	4095	50826.
Kurnool	38853	11439.
Chingleput	46191	86664.
North Arcot	56263	46538.
South Arcot	25787	37568
Tanjore	30903	7804
Coimbatore	16169	38644
Canara	17501	40204.

7 Under the head of Buildings No III the largest

Buildg

disbursements appear in Bellary, Chingleput, Coimbatore, Madras and Hydrabad. The Classification of the total Expenditure for Buildings is as follows-

	New Works Rs	Repairs Rs
Military	984615	118926
Revenue	21977	27494
Public	50966	32954
Judicial	57041	21861
Ecclesiastical	7693	6607
Marine	13501	686
Educational	2814	289.
	1138607	208817

8 The administration report from para 15 notices the operations of the department in each of the Divisions and Districts, and puts forward prominently those works of any importance that have engaged the attention of the Engineer Officers. This part of the subject does not call for much observation. The restriction

order

orders of the Government of India already adverted to have greatly narrowed the operations of the department, and as a consequence, left the Engineer Officers little else to attend to than the repair and maintenance of existing works, and the continuation of some works already in progress, or as expressed in para 5 of Colonel Lawford's letter of the 16th December "no new works of any magnitude" were carried on during the year, whose effect on the improvement of the country" deserves special mention".

Irrigation works

Looking to the statements given above, it is seen that a large share of attention has been devoted to the two kinds of works most conducive to the benefit of the country, Viz: Irrigation works and Roads and Bridges. As regards the first, it is observed, that in the Godavery & Kistnah divisions

divisions, and in the Districts of Nellore, Cuddapah, North and South Arcot, Trichinopoly, Tinnevelly and Coimbatore, there has been considerable expenditure ~~out as well~~ for the improvement or extension of works, as well as for repairs; while in the Districts of Ganjam, Bellary, Chingleput, Tanjore, Madura and Salem, the outlay was chiefly, if not almost wholly, for repairs.

Godavery division	Rs.
New works	152,286
Repairs	305,077
	457,363.

9 In the Godavery division where the expenditure has exceeded 4½ lacs, the principal works ~~undertaken~~ were the Wyyeroo Canal; ~~of irrigation & navigation~~; the Samulcottah and Toonee Canal; the Samulcottah & Cocanada Canal; some Irrigation & Drainage Channels, and other works connected with the Godavery Anicut. The large expenditure in repairs was chiefly for the repair of the breach in the Anicut.

p. 24.

Kistnah division		Rs.
	New works	82,166.
	Repairs	123,807.
		205,973

10 In the Kistnah division the principal works ~~taken in hand~~ were the Northern & Southern high level

cival channels, and the channel from the Poolairoo to the Canal basin at Masulipatam, besides others of less note. The expenditure on repairs was for irrigation works, connected chiefly with the extension and development of the System dependent on the Kistnah Anicut. p:37.

11. The Hurricane of Novr 1857 did much injury to the works in Nellore & Cuddapah, and led to large expenditure in both Districts for repairs. The great bulk of the Expenditure in North Arcot was incurred on account of the Palar Anicut & its subsidiary works, & for repairs to other works. The Expenditure in other Districts does not call for special notice & though large in many instances has been necessitated by the circumstances of the season, as in the case of Tanjore where the irrigation works sustained considerable injury from the monsoon of October 1857 and led to an Expenditure which in all amounted to Rupees 165965; as also in Trichinopoly where the rains of November & December 1857 caused considerable damage. p:64 p 68

* P.73 Navigation

12. The Paumben Channel ~~it is represented~~ ~~has~~ was further improved during the year by the removal of 7120 Cubic feet of stone and of 9285 cubic feet of sand, at a total expenditure of 9104 Rs and it is stated that the Channel with its rapidly increasing traffic ~~tonnage~~ is slowly but steadily advancing, to the attainment of the general depth of thirteen feet shewn to be practicable and strongly recommended by Colonel A. Cotton in 1854.

Roads

13. The communication in the Provinces shared in the damages sustained by the Irrigation Works, and large disbursements ~~appear to have~~ were made for their repair. The expenditure on Roads and Bridges

has been general, but the largest appears in Chingleput and North Arcot the amount expended in each exceeding, both for new works and repairs, a lac of rupees.—

Buildings

14 On Buildings the Chief expenditure is on account of those appertaining to the army, and comprizes several Military Works at Saint Thomas Mount, Rs 315,994 for the Jackatallah barracks on the Neilgherries, and Rs 360,570 for the Hydrabad barracks.

P 51.

Revenue from Cochrane's Canal

15 The transactions connected with the traffic from the Northward by Cochrane's Canal for the year 1857/58 are contained in the Tables lettered A to E, and exhibit in comparison with 1856/57, a large increase in Tonnage and Toll.

	Boats	Tons	Toll Rs a
1856—57	9287	105,467½	26366-14
1857—58	9324	129,643	32,410.12
Increase in 1857-58	37	24,175½	6,043.14

The Chief items which contributed to the traffic of the year were the following:

	Boats	Tons	Toll Rs a
Chillies	180	2239	559.12
Firewood	1341	27,905	6976.4 *
Jungle Sticks	14	200	50 *
Passengers	2002	2062	515..8
Paddy	49	624	156
Red Wood	25	605	151.4 *
Shells	1473	23,142	5785.8
Saltfish	228	469	117.4
Salt	2415	54,585	13,646.4
Wood	701	11,524	3631. *
	8,428	126315	37,588.12
Other commodities			
	9324	129,643	32410.12

Traffic Returns of different Channels.

16 The Returns of the traffic on the Godavery and Kistnah Channels, and on the Eastern Coast Canal which form No 3 of the accom-paniments

accompaniment of Colonel Lawford's letter of the 16th Decr 1858, will be published in the Official Gazette for general information.

Audit of Bills in the Central Office.

17. The Statement of the audit of Bills as given in para 6 of the same letter shews a balance remaining unadjusted on the 1st May 1858 of 3731 bills to the amount of Rupees 6667986-11-2. It is not necessary to notice this part of the subject further, as from the Report of audit received from the Central Office dated 7th February 1859, it appears that all bills previous to 1st February 1859 had then been adjusted, and that there was no balance remaining on that date.

Cons: 25 Feby 1859 No 110.111

The

Operations of the Lithographic department.

Enclosure No 7.

18. The statement to exhibit the work of the Lithographic department shews that, between the 1st of May 1857 and 30th of April 1858 the number of copies and of impressions struck off and supplied to public Offices were as follows.

	Copies	Impressions
Maps & Drawings	39,228	47,438
Circulars, Forms &ca	170,444	104,200
	209,672	151,638

The cost of this Press is represented at Rs 18868 and the value of the work, estimated at rates which the Officiating Chief Engineer considers rather at Rupees 16,781. Colonel

Lawford thinks from this result that the Office has acquitted itself very well, an opinion in which the Government are disposed to join him.

19 In his letter of the 13th October 1858 Colonel Lawford observed, first, that the Government of India (Ex Min Cons 24th November 1855) require an Administration Report to be submitted annually in the month of June; secondly that the Rules 11 to 13 circulated with Ex Min Cons 17th June 1856 require the submission of an annual report on the operations of the Dept to the local Govt, which report, amongst other points of information, is required to

to contain details of the results of improvements; thirdly that a Progress report is also submitted to the Government of India under orders dated 9th February and 7th May 1858. Colonel Lawford states that Rules 11 to 13 of the 17th June 1856 enjoining an annual report on the operations of the department and on the results of improvements, are literally complied with by the Administration and Progress Reports sent for transmission to the Government of India; and he suggests that the "annual Report required by the three

Rules be discontinued, and that in lieu of it the "annual Progress Report" may be considered as the great report of the department, and that reports on the issues of stores and instruments and on the rates paid for labor &ca be separately submitted as distinct documents, or as supplements to the Progress report.

20 The Govt were not willing at the time to disturb existing arrangements until they had the report previously called for by them respecting the applicability

of

of the Bengal Code of Public Works to this Presidency; but apprehensive that the question may involve delay, Colonel Lawford has submitted a copy of the administration Report already prepared for the Govt. of India as a substitute for the Report of operations required by the Rules of the 17' June 1856 merely by completing it with statements containing the further information required by those Rules.

21. This course ~~by Colonel Lawford~~ though its expressed object is to save time

and trouble, is attended with some ~~degree of~~ confusion and inconvenience. The requirements of the Govt. of India and of the local Govt. are each for a specific object. The Supreme Government require a report of proceedings in the Public Works and other depts. for the purpose of compiling a general report of the administration of the Country; whereas the local Govt. require an annual report in order to their being kept informed of the actual working of the dept. The Govt. think that these two distinct objects should be maintained; and that by proper arrangements this may be done without difficulty and without ~~or~~ much additional labo-

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Ex Min & Cons. 19: June 1855 No 274
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They would call the attention of the Central office to their order of 24: November 1855 No. 1497 on the letter from the India Government requiring these administration Reports. It was there directed "that the reports should "be as brief as is com"patible with perspicuity "while they must at "the same time present "distinctly all facts of "importance and which "are likely to be interest"ing to general readers." The Report now review-ed, with some improvement would fully answer the purposes of the annual Report on the operations of the Department, a Department required by the Local Government, but it does not meet the orders for brevity and perspicuity specially enjoined in the case of the administration Report.

The best course perhaps would be to prepare first the Annual Report for this Government, of the operations of the Department, and then to condense from that document the administration Report of the Department, which would necessarily be much more brief.

Ordered that 500 Copies of the report together with this revision

be printed as a selection for distribution. 29

10 Copies to the Chief Engr.
Aug. 24

3 — Bd of Rev.s
for informn.

Copy in a L to C.
dd 20th May 1859 No 13.

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No 15377.

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No 142.

March R16th