(1) பக்கங்களின் எண்ணிக்கை 218

(2) புதுக்கித் திருப்பிய நாள் செப்டம்பர் 1991

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

ADMINISTRATION REPORT
OF THE
PUBLIC WORKS DEPARTMENT, MADRAS
(GENERAL, BUILDINGS AND ROADS BRANCH)
FOR THE YEAR – 1988-89

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தாள் : 1988-89.

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ADMINISTRATION REPORT

OF THE

PUBLIC WORKS DEPARTMENT, MADRAS

(GENERAL, BUILDINGS AND ROADS BRANCH),

FOR THE YEAR 1888-89.

I.—GENERAL REMARKS.

Colonel J. O. Hasted, R.E., Chief Engineer and Secretary to Government, proceeded during the year on six months' special leave, which was afterwards commuted into furlough for twenty-two months. The administration of the department devolved in consequence on Colonel H. R. Mead, R.E., who, having held the position of Acting Chief Engineer and Secretary from October 1888 to the middle of March 1889, himself proceeded on six months' special leave, handing over charge of the General, Buildings and Roads Branch of the department to Lieut.-Col. R. R. E. Drake-Brockman, R.E., with position in the Secretariat of Joint Secretary. The Irrigation Branch of the department, held by Mr. G. T. Walch since the date of Colonel Hasted's departure, has been continued in his hands, with position in the Secretariat of Secretary to Government. These appointments have been made pending more definite arrangements which will probably come into force in March 1890.

Grants and Expenditure.—The following statement shows the grants and expenditure under the different service heads :—

——	Original grant.	Revised estimate.	Expenditure.
	Rs.	Rs.	Rs.
Imperial Military Works	..	..	..
Do. Civil Works	..	..	..
Provincial Civil Works	..	..	..
Local Incorporated Funds	..	..	..
Do. Excluded Funds	..	..	..
Estate Works	..	..	..

Amalgamation of Provincial and Local Establishment for Public Works.—This matter was raised in 1886 by the Finance Committee, who entered at considerable length into the question of the expense caused by the maintenance of double establishments for that class of public works which are known as Civil Buildings, Roads and other Services. The Madras Government, after careful consideration of the arguments of the committee and of local circumstances as obtaining in this Presidency, reported to the Government of India that it was inexpedient to hand over to the Public Works Department any of the public works now under the control of Local Boards. This view was reiterated in the year under notice on the matter being again brought forward; the Government being satisfied that the expenditure from local rates, against which the cost of these works falls, is sufficiently controlled and supervised in this Presidency. As to whether any works now in charge of the Public Works Department could with advantage be handed over to Local Boards, it was found on inquiry that very few such works could be transferred. The subject will, however, be kept in view, and if at any time it is found that works appertaining to the Public Works Department in a particular locality can more conveniently be carried out by Local Boards, the needful transfer will be made in the interests of economy; the

principle of mutual help between the Public Works Department and Local Boards, hitherto maintained, being kept steadily in view.

Accounts Branch.—The report of the Public Service Commission on the Accounts branch of the Public Works Department came under the consideration of the Government of India during the year. The commission was of opinion that the recruitment for this branch of the service was unsatisfactory. The recruitment has hitherto generally been—

(1) by transfer of officers (Military and Civil) from the Engineer establishment of the Public Works Department;
(2) by promotion of selected accountants from the subordinate service; and
(3) by appointment of nominated candidates outside the service who have passed a prescribed entrance examination.

The Public Service Commission considered that the number of Engineers and Military officers already employed was excessive, and recommended certain alterations in the mode of recruitment of outside candidates.

The Government of India laid down certain general rules for future recruitment under which appointments to the superior service of the accounts branch of the department will be made mainly from successful candidates in a nominated (not open) competitive examination, and occasionally from senior accountants already on the establishment. Nominations to the competitive examination will rest with the Accountant-General. The candidates who pass the examination will be appointed apprentice examiners in order of merit and to the extent of vacancies. The nature of the examination to be passed and other details as to age, &c., have been published in the *Gazette of India*.

The Government of India had also under consideration the question of the reduction of accounts work in the offices of Executive Engineers, and appointed a committee to make a searching inquiry into the system of accounting for receipts and expenditure, and to report how far the present procedure could be simplified without sacrificing administrative control. The duties of the committee were to thoroughly investigate the procedure as laid down in the Public Works Code and Book of Forms, and to consider what accounts and returns were essentially necessary for purposes of control, and what might be dispensed with. The committee were also to discuss how far the accounts proposed to be retained could be simplified in order to lessen the labor in Executive Engineers' offices. The committee were further empowered to take the evidence of local officers of experience, and for this purpose held their sittings at the principal stations of the empire.

Employment of Pioneer Troops on Public Works.—His Excellency the Commander-in-Chief brought to notice the desirableness of employing Pioneer troops on such public works as might be deemed suitable. He was of opinion that the usefulness and efficiency of these troops, as Pioneer battalions, could only be maintained by their frequent employment, in times of peace, on works which would afford some training for the duties required of the men in the field, and which would give them some opportunity of earning working pay and thus render service in the Pioneer battalions popular. The Government accordingly directed that employment should be found for these men when practicable, a certain number being at once sent to the Cuddalore bridge works and the Periyár project.

Famine Relief Works.—In October last the Collector reported that great scarcity existed throughout the district of Ganjam; that the rains had failed; and that, should matters not speedily improve, it would be necessary to start famine relief works. The Government of India had already been asked to make an additional grant for the continuance of work on the Rushikulya project, and the report of the condition of the district made by the Collector emphasised the demand. Although the Government was not at that time prepared to admit the necessity of starting relief works, it entertained grave apprehensions, and arrangements were made for augmenting the Public Works staff of the district and providing a sufficient supply of tools immediately the necessity for them should become apparent. In order to ascertain the exact condition of affairs, Mr. J. H. Garstin, C.S.I., 1st Member of the Board of Revenue, was deputed, on the 25th October, to proceed to Ganjam, and report to Government the result of his personal observations. He was at the same time

authorised to take the necessary steps for putting in hand at once the works connected with the Rushikulya project under the rules prescribed by the Famine Code for professional agency works should, in his opinion, the condition of the district render such a step advisable. Mr. Garstin did not consider it necessary to exercise the power conferred on him to order the immediate commencement of the Rushikulya project as a famine relief work, but thought it sufficient to direct the Executive Engineer to receive all able-bodied applicants for labor that came to him, to carry on the work in the ordinary way, to indent for a large supply of tools, and to arrange with the Collector for a supply of small coin in case daily payments should become necessary. Between the 9th November, when the Russellkonda reservoir work was recommenced, and the 24th idem, the total number of workpeople who came to the canal works was 2,522. Mr. Garstin also recommended that steps should be at once taken to begin work on the Ganjam-Gopálpur canal as, should the distress spread, there would not be sufficient room on the Rushikulya project for all persons who might be expected to apply for work. This latter work would provide employment for all distressed persons throughout the eastern portion of the district. Should these two large works not afford sufficient employment, nine lines of road were suggested as subsidiary works.

These recommendations were approved by Government, who directed the immediate entertainment of the required additional Public Works establishment and the provision of the requisite supply of tools. The Rushikulya project works were calculated to afford employment to some 20,000 laborers for the ensuing four or five months. The grant for the work then amounted to Rs. 43,000, and after the 1st April there would be 3½ lakhs available. The Ganjam-Gopálpur canal would afford employment for 4,000 coolies for five months, and an allotment of Rs. 30,000 was made for immediate requirements. The numbers employed on the works at the close of the year were as follows :—

—	Men.	Women.	Children.	Total.
Rushikulya	5,694	2982	2,421	11,097
Ganjam-Gopálpur canal ..	4,315	3,329	505	8,149
Total ..	10,009	6,311	2,926	19,246

Madras Harbour Works.—At the close of the previous year the Harbour Trust Board had under consideration the report of the London Committee on the best position for the entrance to the harbour, a question which had been reopened in consequence of the effects of the cyclone of 1887. The Board submitted their report in April 1888. They considered that if the harbour is to be a success, *smooth* water is an absolute necessity, and that this could not be secured with an eastern entrance, through which heavy rollers find free admission in bad weather, rendering unsafe structures within the harbour which may be erected for the landing and shipping operations of the port. They accordingly adhered to their former resolution in favor of a north-east entrance and gave the preference to plan No. III, which had been approved by the London Committee. The additional cost of this they estimated to be Rs. 27,70,103 or Rs. 30,08,363, according as the overlap of the pier would be 600 or 800 feet, respectively. These conclusions were laid before the Secretary of State for final decision, and meanwhile the Harbour Trust Board were called on for an expression of their views as to the best means of carrying out the proposed plan and for a detailed estimate of the cost. On further inquiry the Board found that the carrying out of plan No. III presented great practical difficulties. They therefore resolved, on engineering grounds, to adopt a form of entrance based on plan No. IV of the London Committee, or plan *A* put forward by Mr. Parkes, and to carry out the work in accordance with Mr. Parkes' suggestions ; that it is say, they proposed, as a first step, virtually to restore the harbour to the state it was in previous to the storm of November 1881, with an eastern entrance. Should it then be found that the eastern entrance does not give sufficiently smooth water, the north-east entrance can be gradually substituted without serious engineering difficulties, and during the period of alteration from the eastern to the north-east entrance, the usefulness of the harbour will be in no way impaired. Plan No. III was originally preferred on *nautical* grounds, and as no exception on such grounds could be taken to the new plan No. IV A

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while the arguments in favor of its adoption on engineering grounds were very strong, the proposal was forwarded to the Secretary of State with a request that sanction might be given to the preliminary step of restoring the harbour with an eastern entrance. Sanction to this proposal was received and communicated to the Harbour Trust Board towards the close of the year.

In May 1888 Mr. Thorowgood, the Engineer to the Harbour Trust Board, resigned his appointment and was relieved by his Assistant, Mr. A. L. Pogson, whose appointment as Engineer was sanctioned provisionally pending settlement of the north-east entrance to the harbour when active operations were expected to be resumed. Mr. Pogson has recently been confirmed in the appointment. Intimation was received of the death in England, on the 5th February 1889, of Mr. Parkes, the designer of the works, and of late years the Consulting Engineer for the Harbour Works to the India office in London. Mr. Parkes' place has not been filled up.

There was a satisfactory outturn of work on the harbour improvements, but better progress would have been made had the ultimate design of the harbour been settled and authority to proceed with the north arm received earlier in the year. Work at the north pier was in abeyance till February 1889, but since that month active operations have been going on.

At the north pier 494 blocks were set by divers in 46 working days, adding a length of 299 feet to the superstructure, and making up the total length of the masonry pier to 2,825 feet from the shore end. 76 thirty-ton blocks were dropped into position by the large wavebreaker crane up to the end of June, when it was decided to transfer this crane to the south pier. The crane had to be dismantled and removed by rail, then re-erected before it could be travelled over the work it was designed for; the crane was finally completed and launched on the 17th January 1889. 2,544½ tons of stone were deposited in the base and foreshore of the north pier, and 2,147 concrete blocks were made for the superstructure and wavebreaker protection. These blocks represented 36,800 cubic yards of concrete. 6,383 tons of Portland cement from England were used. The average rate, delivered on the works, was Rs. 48–1–1 per ton.

The total quantity of materials supplied from the Pallávaram quarries was 48,585 tons, brought to Madras in 8,365 railway wagons. There were 48,283 tons of stone for the rubble base and chips for block-making, and 302 tons of ballast for the beach improvements. The quarry lines were maintained in excellent order and there were no derailments during the year.

At the south pier 656 superstructure blocks were set in position, advancing this arm by 414⅔ feet and making the total length on the 31st March 1889 3,519 feet, measured from the first block set on shore in 1877.

The wavebreaker protection was strengthened by 714 blocks being dropped into position, widening the screen to the full section of 40 feet from the superstructure, and 4,037½ tons of rubble stone were deposited in the base and foreshore of the work.

The expenditure on the works during the year was Rs. 6,17,226, made up as follows:—

	Rs
Works	5,30,224
Establishment	72,714
Tools and plant	5,546
	6,08,484
Net debits to suspense heads ...	8,742
Total ...	6,17,226

and the total expenditure from the commencement Rs. 30,33,478–5–7 against the estimate of Rs. 45,90,051.

A scheme for beach improvements was drawn up and sanctioned. This consisted of a rearrangement of all railway lines, erection of good sheds and thorough repair of the iron pier. 230 running feet of the old pier were dismantled of all timber work, and in lieu an embankment was formed upon which three large corrugated iron goods sheds were erected. 2,978½ running feet of new railway lines were laid and 2,481 running feet were taken up, partly renewed, and relaid, in accordance with the new scheme. Three large turn-tables were erected, thus placing both the Madras and South Indian Railways in direct communication with the harbour works and the

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iron pier. Two steam cranes were also erected and placed in position on the iron pier, and fourteen hand cranes thoroughly repaired, while twenty-seven trucks were made and repaired for use on the pier and custom-house.

. *Bangalore Water-supply.*—The investigations made of late years having, as mentioned in the previous report, failed to produce an efficient and economical scheme of water-supply to the troops stationed in Bangalore, the Government resolved to offer a reward of Rs. 1,000 for the best essay on the subject, on conditions which were duly notified in the *Fort St. George Gazette*. A number of essays were received in compliance with this invitation and were carefully examined by the Chief Engineer, who awarded the prize to Mr. Standish Lee, Sanitary Engineer, Mysore. A thorough examination of all the schemes submitted as well as the country in the neighbourhood of Bangalore led the Chief Engineer to the conclusion that the best sources of supply are to be found in the Hebbal basin near the head of the Penna Kinni valley, about four miles north of Bangalore, and in the so-called Magadi road basin near the head of the Arkavutty valley, about seven miles west of Bangalore. Mr. Standish Lee's scheme provides for a supply from the latter valley. He proposes the construction of a reservoir on a stream which crosses the Magadi road about seven miles from the cantonment, the stream to be dammed about a mile below the road where he finds the catchment area to be 8·84 square miles. The country here is very different in character to that of the Hebbal basin, and the slope of the drainage is very much greater. High rocky mounds, with deep valleys between, break up the surface, and for the most part the land is waste, there being only a few small villages with a little dry cultivation. The country, the soil of which is of a poor character, is eminently suited for a gathering ground. The valley is deep and very narrow in parts, and there are sites where reservoirs might be formed at very reasonable outlay. There is very little laterite to be seen at the head of the valley, but everywhere else the outcropping rock is igneous, the bed of the stream being rocky throughout. As regards the quantity of water available, the run-off from 8·84 square miles in the neighbourhood of Bangalore has been calculated to be 61·8 million cubic feet in the worst year of rainfall, and deducting one-third for loss by evaporation, &c., the quantity available for consumption would be 41·2 million cubic feet, or 7 gallons per head per diem for 100,000 persons. The character of the ground, however, in this valley seems to warrant the assumption that the run-off would be somewhat greater, and would afford a supply of $6\frac{1}{4}$ gallons to 130,000 persons, and that one year's supply could be stored without a very heavy expenditure. The scheme roughly worked out would seem to promise a sufficient supply of as nearly pure water as any surface drainage can be for 100,000 persons at a reasonable cost, or about 6 lakhs of rupees, the cost per 1,000 gallons being less than one-third of a rupee. In view of these circumstances the Government deputed a special officer for more detailed investigation, the scope of the inquiry being extended to several other schemes which were presented. Mr. J. C. Larminie, Executive Engineer, was employed on the duty from the middle of 1888 to the end of the official year. Mr. Larminie's report had not been dealt with when the year closed.

. *Bellary Water-supply.*—The want of a sufficient supply of good water for the town and cantonment of Bellary has long been felt. The present sources of supply are the Alipore tank, the Fort ditch reservoir, and various scattered wells; but the quantity obtained is inadequate, the quality, particularly from the wells and Fort ditch reservoir, is inferior, and the cost of delivery excessive. The Executive Engineer, Bellary division, prepared a scheme during the year for the improvement of the existing sources of supply, the estimated cost of which amounts to Rs. 60,000. The present annual charge for supply of water to the troops amounts to Rs. 23,700. The proposed improvements will involve an increase of Rs. 6,300 per annum. Final decision on the Executive Engineer's proposals has been deferred, pending the report of a committee appointed to consider the incidence of the cost and how the civil population is to be supplied if the Fort ditch reservoir is closed to them and reserved exclusively for the military.

. *Cuddapah Water-supply.*—The unhealthiness of the town of Cuddapah has long been manifest, and various schemes for the amelioration of the present condition of things have been brought forward. Of these, a good water-supply and improved drainage have been unanimously advocated. The working out of a water-supply

scheme was entrusted to Major (now Lieut.-Colonel) R. R. E. Drake-Brockman, R.E., of the Public Works Department, and his report was laid before Government in 1885. The following are the leading features of the scheme. Certain natural springs, situated about three miles south of the town, called the Boogga springs, the supply from which is stated to be abundant and of the purest quality, were to be tapped and their flow arrested by means of an infiltration gallery constructed in a diagonal direction across the Booggeru river. The upper end of this gallery was to abut on the left bank of the river just below the springs. The lower end was to be carried into the right bank and communicate with a well from which the water was to be raised by mechanical appliances into a cistern at the head of a masonry conduit, 8,340 feet in length, terminating in an 8-inch cast iron pipe, 2,150 feet in length, to supply the service reservoir. The reservoir was to have a capacity of about 175,000 gallons, or three-fourths of one day's maximum demand of 10 gallons per head of population. The main pipe leading to the town was to be 11 inches in diameter and 7,370 feet in length, and, laid at an inclination of 4 feet a mile, would discharge 47 cubic feet a minute. Two sub-mains, 7 inches each in diameter, connected by a breeches piece with the main, and carried to a distance of 1,475 and 1,365 feet, respectively, were provided, the service pipes being connected with these and the main. Provision was also made for fountain hydrants. On review of the project by the Chief Engineer, it was considered desirable to enlarge the service reservoir sufficiently to render it capable of holding two days' supply, and its position was subsequently changed to the pumping station at the river head, the water being carried thence the whole way to the sub-mains in an iron pipe. These changes, with other alterations, principally as regards the thickness of the pipes (not yet, however, finally settled), have raised the estimate from Rs. 75,000 to Rs. 1,06,329. The work is being carried out by means of a loan raised by the municipality and a contribution of Rs. 40,000 from Provincial funds, and is being supervised by an officer of the Public Works Department.

Artesian boring in the Kortalayár Valley.—The depth reached at the end of the previous year was 371 feet. Operations were continued during the present year, but were not very energetically carried on by the contractor, who, after reaching a depth of 405 feet, stopped work. It was thereupon resolved by Government to take the opinion of the Geological Department on the results already attained and the advisability of continuing the experiment. The Director replied in January 1889 that, from the record of the samples given, he was unable to judge accurately of the age of the different strata passed through, but he was inclined to think that much of the lower portion did not belong to the alluvial deposits proper, that for about 190 feet the boring may have been in the strata underlying the Cuddalore sandstones (Red Hills laterite, &c.), and that in these there was not likely to be water sheets of any promise. He did not recommend that the boring should be made deeper in the expectation of meeting rising water. The boring was accordingly discontinued.

Inspection of Lighthouses.—In accordance with the general instructions of the Government of India, the following lighthouses of this Presidency were inspected during the year by superior officers of the Public Works Department, their condition noted and requirements ordered to be supplied :—

Hope Island (Coringa).	Calicut.
Vakalápudi (Cocanada).	Cochin.
Point Divi.	Cannanore.
Pulicat.	Seven Pagodas.
Armeghon.	Madras.
Tellicherry.	Tuticorin.
Mangalore.	Negapatam.

The Superintending Engineer, VI Circle, reported that he could not obtain the use of a steamer and therefore proposed to defer his inspection of the lighthouses at Muttum and Pámban. Seeing that these lighthouses were reported to be in good order last year, and one of them, Muttum, had recently been visited by the Port officer, Madras, the proposal was agreed to, the Executive Engineers concerned being ordered to undertake the inspection as soon as practicable.

Work in Estates under the Court of Wards.—Under arrangements made by the Court of Wards, the Public Works Department have taken charge of works in the estates of minors under the control of the Court. The following estates were thus dealt with during the official year :—

	Grant. Rs.	Outlay. Rs.
Ganjam District.		
Parlákimedi	60,270	45,707
Chinnakimedi	8,241	6,940
Járáda	4,441	2,178
Bodagada	...	2,128
Urlám	10,516	10,348
Dhárakót	...	5,727
Chakapalli and Tarlapatta	...	700
Aska	...	702
Kurla	...	2,227
Atagada and Kallikótta	10,745	6,944
Vizagapatam District.		
Chidikada and Jaganathapuram	2,000	246
Godávari District.		
Lukkavaram	2,700	1,988
Salem District.		
Erumapáti	938	428
Yelagiri	2,000	...
Madura District.		
Ramnad	1,04,571	1,02,425

The following statement shows the grant and outlay under Public Works Department service heads, and will convey, perhaps, a better general idea of the nature and amount of the work carried out than an enumeration of a long list of individual works, many of them necessarily small as compared with State works of the same class :—

	Grant. Rs.	Outlay. Rs.
Irrigation	64,290	90,113
Civil buildings	1,01,070	62,658
Communications	25,060	20,413
Establishment	16,402	15,505

The grants were not utilised to the fullest possible extent. This was due in some measure to the difficulty experienced in carrying out work in the remote localities in which many of these estates are placed.

The want of progress attracted the notice of Government during the year, and the attention of the officers concerned was called to it. It is hoped that with the improved arrangements since made, better results will be recorded next year.

Presidency Public Works Stores.—Colonel S. C. Clarke, R.E., Executive Engineer, First-grade, was posted to the Stores and Workshops in May 1888, and continued to hold these charges during the remainder of the official year. Stock taking was carried out by Colonel Clarke, who found the articles in store to be in agreement with the books :—

	Rs.	A.	P.	Rs.	A.	P.
The opening balance at the beginning of the year was ...				1,75,406	12	7
and the receipts were as follows :—						
From London	34,819	11	5			
„ Public Works divisions	71	9	6			
„ Presidency Workshops	1,714	5	6			
				36,635	10	5
Total ...				2,12,132	7	0
The issues were—						
To Public Works divisions	29,658	2	6			
„ Public Works Workshops	23,166	13	6			
„ Dowlaishweram do.	5,592	0	2			
„ Civil Departments	40	7	8			
„ Military Department	259	15	4			
„ State Railways	452	12	2			
„ Guaranteed Railways	2,192	10	2			
„ Mysore State Railways	1,487	9	7			
„ Madras Harbour Works	767	12	9			
„ Private sales	1,255	3	1			
„ Loss by sale of surplus stores ...	968	2	8			
				65,841	9	9
Thus leaving a closing balance of				1,46,290	13	3

or Rs. 29,205 less than the opening balance at the beginning of the year.

Twenty-seven consignments of stores were received from England, and the same number of shipments by steamers to the northern ports were made.

. *Presidency Public Works Workshops.*—The following is a comparative statement of the work done in the shops for the year under review as compared with the previous year:—

—	1888-89.	1887-88.	More than 1887-88.	Less than 1887-88.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Work done for Public Works Department ..	82,174 3 7	79,312 9 8	2,861 9 11	
Do. for Other Departments	31,212 0 7	64,241 4 10	..	33,029 4 3
Do. for do. Private parties ..	4,244 6 10	6,153 8 3	..	1,909 1 5
Total ..	1,17,630 11 0	1,49,707 6 9	2,861 9 11	32,076 11 9

The decrease in the amount of work done for other departments is accounted for by the fact that during the preceding year exceptionally large orders were given by the Salt and Commissariat departments for weighing scales and weights and other articles.

The falling off in the amount of work done for private parties is not to be regretted, if, as appears probable, the iron manufactories started by native firms, have been more resorted to by private individuals.

The value of machinery in the shops at the beginning of the year was Rs. 1,07,945. After deducting 4 per cent. for depreciation, and adding certain receipts amounting to Rs. 4,294–14–11, the balance at end of the year was Rs. 1,07,908–8–6.

. *Port Storekeeper's Department.*—Very little work was done in this department. Only twelve consignments of stores were received, six from London, five from Calcutta and one for Rangoon. The shipments were only two, both to Calcutta. The reduction of work was due to the withdrawal of the Bellary and Cuddapah-Nellore State Railways which were transferred to the Southern Mahratta Railway Company.

. *Government Lithographic Press.*—It was decided during the year to transfer to the Revenue Survey Department all lithographic work hitherto done by the Government Lithograph Press, the latter being abolished with effect from the end of the official year. Some of the draftsmen were retained to form a drawing office attached to the Chief Engineer's office. The draftsmen are expected to prepare for lithography large scale copies of all drawings which may require enlargements, the Survey Department not having the means of doing this. The saving in the Public Works Department by reduction of the establishment amounts to Rs. 570 per mensem. During the year the press turned out work to the value of Rs. 11,064, the working expenses being Rs. 9,909. The bulk of the work was for the Public Works Department, though the services of the press were utilised by many other departments of Government.

. *Type-designs for Bridges.*—In 1886 the Secretary of State was requested to arrange for the preparation in England, by competent Engineers, of complete sets of type-drawings, specifications and estimates for iron bridges of certain specified dimensions, in view to officers not only of the Public Works Department but also of Local Boards being placed in possession of designs on the most approved pattern. The work was accordingly undertaken and the drawings were completed during the year. They consist of complete designs and details; those portions of the drawings which show the general construction of the bridges being lithographed, together with the necessary specifications. It is expected that such drawings will be sufficient to enable Engineers in India to select the type of bridge most suitable for any particular requirement and to estimate its cost. The following is a list of the drawings prepared:—

	Number of type-drawings.
Bridges rising by increments of 2 feet 6 inches from 5 feet to 10 feet clear span, with 9 feet 6 inches clear roadway	3
Do. do. with 14 feet 6 inches clear roadway ...	3
Bridge of 15 feet clear span, with 9 feet 6 inches clear roadway ...	1
Do. do. with 14 feet 6 inches clear roadway ...	1
Bridges rising by increments of 5 feet from 20 feet to 30 feet clear span, with 9 feet clear roadway	3
Do. do. with 14 feet clear roadway	3
Bridges rising by increments of 10 feet from 40 feet to 80 feet span centres bearings, with 14 feet clear roadway	5
Bridges rising by increments of 19 feet from 95 feet to 152 feet span centres bearings, with 14 feet clear roadway	4
Total ...	23

. *Scrutiny of Local Fund Estimates by the Public Works Department.*—It was decided, shortly after the transfer to Local Boards of the execution of Local Fund works, that the plans and estimates of the more important works should be scrutinised by superior officers of the Public Works Department. The estimates of all *new works* costing Rs. 2,500 and upwards, and of all *repairs* costing upwards of Rs. 10,000, as well as of such other works as might require special professional examination, were to be submitted to the Chief Engineer or Superintending Engineers. For professional services thus rendered, Local Boards were charged a yearly contribution of Rs. 21,250, which was expended on the entertainment of subordinate establishments in the Public Works offices performing the work. The contribution was subsequently fixed at $2\frac{1}{2}$ per cent. on the value of the estimates scrutinised, and *repair* estimates were excluded from professional check by the Public Works Department. The rules given below have now been brought into force.

The $2\frac{1}{2}$ per cent. shall be struck as follows:—

(*a*) *Original estimates*, or those examined for the first time on the amount of the estimates as submitted to the Superintending Engineer.

(*b*) *Revised estimates.*—There shall be no fresh charge when the alteration is due to change of quantities or rates, and not of design. In other cases the full percentage shall be charged on the amount of items altered as appearing in the revised estimate submitted to the Superintending Engineer.

(*c*) No charge for scrutiny of estimates is to be made when Local Funds pay the ordinary percentage for establishment, &c., for works executed by the Public Works Department.

. *Service Books.*—The orders with respect to the due and correct maintenance of the service books of public servants appear to have ~~been~~ receiving attention at the hands of officers of the Public Works Department.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

. **Ganjam**—*Constructing a Regimental school for the Native Infantry at Berhampore, revised estimate Rs.* 1,680.—This work was not completed owing to insufficient provision in the original estimate for woodwork, for which a revised estimate had to be prepared and sanctioned before any more work could be carried out.

. The expenditure under the minor original works and repairs was Rs. 1,653 and 1,603, respectively. The number of original works were 4, of which 3 were completed and the Regimental schoolhouse at Berhampore was in progress.

	Rs.
Demarcating lands of cholera camp for military cantonment	90
Altering existing butt at the present rifle range	350
Supplying ammunition boxes to 5th Regiment M.N.I., Berhampore ...	50

. The number of repair works in progress during the year were 18, all of which were completed.

. The principal works are as noted below :—

	Estimate. Rs.
(1) Special repairs to regimental barracks at Berhampore	180
(2) Remetalling the roads in the regimental lines at Berhampore ...	350
(3) Do. do. in the compound of military hospital at Berhampore	130
(4) Annual repairs to the military buildings of the 5th Regiment M.N.I. at Berhampore	182

. **Vizagapatam.**—The expenditure on minor original works was Rs. 425 and on repairs Rs. 3,548 against an allotment of Rs. 465 and Rs. 3,500, respectively. The construction of butts and making 16 kit-boxes for the 28th Regiment M.N.I. at Vizianagrum and the repairs to road drains and military buildings of E.I.V. Company at Vizagapatam were completed.

. **Godavari (East).**—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 4,070 against a grant of Rs. 2,700. Additional funds were applied for to cover the excess outlay (Rs. 1,370), but were not sanctioned by the Military Department from the funds placed at their disposal.

. **Bellary**—*New Gun-shed for the Royal Artillery.*—Work completed, but the old gun-shed had yet to be demolished. The Military authorities could not vacate it until the new sheds were handed over Estimate Rs. 11,560, outlay Rs. 7,480, against an allotment of Rs. 7,590; outlay including previous year's, Rs. 11,455.

. *Workshops in the Arsenal.*—The walls were built to within 2 feet of the full height. Ironwork for the roof and other roofing materials were at site. The chimney was built to half its height. Roofing and flooring remained to be done. Estimate Rs. 45,500, outlay Rs. 29,532.

. *Reroofing the verandah of the European Infantry Married Ranges.*—Mangalore tiles and teak reepers were collected. Estimate Rs. 13,307, outlay Rs. 6,544, against the year's allotment of Rs. 6,600.

. Ten minor new works were carried out at an outlay of Rs. 7,913.

. The total outlay under Repairs, Military, was Rs. 38,101. This sum was expended in the maintenance and repairs of the military buildings and roads including the Barrack Master's expenditure on petty repairs and compensation for inferior and hired quarters.

. **Nilgiris.**—The following works were completed or in progress :—

(1) The bakery at Wellington was completed at a cost of Rs. 35,785 against an estimate of Rs. 35,850.

(2) Quarters for three Apothecaries were practically completed, only a few minor items remaining to be executed at the close of the year, and were occupied at the end of the year; estimate Rs. 16,000, outlay Rs. 14,566.

(3) Minor works; expenditure Rs. 3,606, allotment Rs. 3,530.

The principal works were—

Completing the laying of the 2" pipes from the drinking-water cistern to Station Hospital at Wellington; outlay Rs. 540.

Supplying cooking stoves to eight Staff Sergeants' quarters at Wellington; outlay Rs. 684.

Reconstructing the compound wall of the Lock Hospital at Wellington; outlay Rs. 1,049.

(4) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. 1,397 and Rs. 23,761, respectively.

Coimbatore.—The following minor original works were completed during the year:—

(1) Constructing a well at site of the new camping ground at Jalárpet; estimate Rs. 655, outlay during the year Rs. 43, outlay up to date Rs. 471.

(2) Converting the present kitchen attached to the quarters for the superintendent of the rest-house at Mettupálaiyam into a shed for two sick carts and erecting a new kitchen; outlay Rs. 500.

The following works were in progress:—

(1) Sinking a well in stud lines and constructing a masonry conduit at the Remount Depôt, Hosúr.

(2) Sinking a well near sick lines and constructing a masonry conduit at the Remount Depôt, Hosúr.

(3) Extending the existing weir of the Jegoor tank at the Remount Depôt, Hosúr.

The outlay under repairs including compensation in lieu of quarters and rent of hired buildings for the Medical and Military subordinates amounted to Rs. 4,653 against an allotment of Rs. 3,696. The excess outlay Rs. 957 was due to the emergent repairs carried out to the rest-house at Mettupálaiyam and to certain buildings at the Remount Depôt at the urgent requisition of the Military authorities.

West Coast.—The new third block barracks at Malapuram for 50 men was still in progress; masonry work completed including verandah pillars; three-fourths of the building roofed in; and asphalte flooring and plastering of the corresponding section completed.

The washhouse and latrine were completed.

The improvements to the canteen were completed and the building handed over for occupation.

The drains in connection with the completed barracks were finished.

The materials for a system of lightning conductors were procured from Bombay and the work commenced.

The outlay on works in connection with Malapuram barracks was Rs. 21,298 during the year against a grant of Rs. 20,234.

A contagious disease ward at Malapuram was almost completed; outlay Rs. 1,260, estimate Rs. 1,800.

Presidency and Bangalore.—The conversion of the racquet court in Fort St. George into a covered gymnasium, an incomplete work of previous years, was carried out to completion at a total cost of Rs. 1,960.

The Sergeants' mess and adjacent godowns in Fort St. George were converted into a latrine and lavatory for single men's barracks at a total cost of Rs. 3,480 on an estimate of Rs. 3,820.

Land and buildings at the old Vepery lines, Madras, were purchased at an outlay of Rs. 41,625 for a coal store, &c.

A sum of Rs. 2,176 was paid on account of work done this year on improvements to water-supply of Fort St. George which had been nearly completed in 1886-87. The total cost on the works was Rs. 8,625.

. Saddle and store room for British Cavalry at Agaram, Bangalore, were built at a total cost of Rs. 4,373 on an estimate of Rs. 4,158.

. Public buildings for a regiment of Native Infantry at the Arab lines were completed, but the extension of the place-of-arms, &c., could not be completed owing to a change in design of building required by the Military Department late in the year after sanction was accorded by Government.

. The outlay during the year was Rs. 2,265 and the total outlay to end of the year was Rs. 24,168 on an estimate of Rs. 30,346.

. Station butcher's quarters, commenced in the previous year, were finished at a cost of Rs. 3,886 against an estimate of Rs. 3,860.

. An expenditure of Rs. 1,000 was incurred on the investigation of the Bangalore water-supply scheme out of Rs. 2,000 assigned for it.

. European guard-room, fire-engine shed and latrine at the Agaram entrenchment were commenced and completed. The total outlay was Rs. 6,005 on the estimate of Rs. 5,555.

. Twenty-nine minor new works at the Presidency and thirty at Bangalore were commenced and completed during the year at a cost of Rs. 13,213.

. One hundred and ninety-six repair works at the Presidency and one hundred and seventy-two at Bangalore were carried out during the year.

. Payments were made to the Madras Municipality of Rs. 14,199 on account of house, water and lighting taxes on Government military buildings outside the Fort, and of Rs. 6,000 on account of maintenance and repairs of the Esplanade and Fort Beach roads.

. At Bangalore Rs. 1,200 and 6,300 were paid to the municipality of the civil and military station for conservancy of the main sewer and repairs to military roads, respectively.

. The total outlay under repairs, including Barrack Master's expenditure on petty repairs, compensation for quarters and payments made to the municipalities on account of taxes and maintenance grants, was Rs. 1,12,213 at the Presidency and Rs. 45,862 at Bangalore.

. The most important of the repair works undertaken during the year were—

. **Madras.**—Repairing and lime-washing the European Infantry barracks, Fort St. George; estimate Rs. 5,534, outlay Rs. 5,499.

. Painting doors and windows of the European Infantry barracks, Fort St. George; estimate Rs. 2,840, outlay Rs. 2,239.

. Thorough repairs to the Officers' mess-house, Fort St. George; estimate Rs. 4,945, outlay Rs. 4,966.

. Renewing the roof of hospital, Perambúr Native Infantry lines; estimate Rs. 2,882, outlay Rs. 3,196.

. Repairing walls and floors and painting doors and windows of the office of the Inspector-General of Ordnance, Fort St. George; estimate Rs. 2,594, outlay Rs. 2,309.

. **Bangalore.**—Whitewashing all the buildings of Parade barracks; estimate Rs. 2,990, outlay Rs. 2,840.

. Whitewashing all the buildings of Agaram Cavalry barracks; estimate Rs. 2,500, outlay Rs. 2,247.

. Substituting Mangalore tiles for ordinary tiled roofing to the Agaram Cavalry stables; estimate Rs. 5,073, outlay Rs. 3,040.

. **Chingleput.**—The construction of new barracks for 200 men at Poonamallee, for which an estimate of Rs. 1,66,886 was sanctioned in February 1879 and for which foundations had been partially laid, was resumed. Out of an allotment of 20,000 an outlay Rs 20,017 was incurred. The main walls were raised to basement level 2,690 cubic feet of cut-stone, 2½ lakhs of platform bricks and 2,875 cubic feet of timber were collected at site.

. Improvements to the barrel racks, reserve powder magazine, Mount, commenced in 1887-88, were completed during the year.

. Eighteen minor new works were completed at a cost of Rs. 6,582.

. Repairs to 25 buildings and several minor repairs, costing less than Rs. 500 each were carried out at a total expenditure of Rs. 20,140, and the roads in the cantonments,

of Mount, Pallávaram and Poonamallee were maintained at an outlay of Rs. 3,730. The total expenditure under repairs, including Barrack Master's petty repairs, compensation for quarters, &c., was Rs. 30,254.

. The more important of the repairs were—

Renewing the lightning conductor of the reserve powder magazine down to earth plate at Mount; estimate Rs. 1,400, outlay Rs. 1,496.

Repairing, white and color washing the Ordnance depôt and its out houses, Mount; estimate Rs. 1,855, outlay Rs. 1,314.

Repairing, white and color washing west barracks and outhouses of Q/1st Royal Artillery, Mount; estimate Rs. 3,880, outlay Rs. 3,873.

Repairing, white and color washing 16 family quarters with outhouses of Q/st Royal Artillery, Mount; estimate Rs. 1,566, outlay Rs. 1,515.

Repairing, white and color washing Royal Artillery mess, Mount; estimate Rs. 1,330, outlay Rs. 1,571.

Repairing, white and color washing the station hospital, Mount; estimate Rs. 1,660, outlay Rs. 1,680.

. **North Arcot.**—No major new works were carried out in the year.

. The only minor new work was the supply of ammunition boxes for the Native Infantry Regiment at Vellore on which a sum of Rs. 73 was spent.

. A sum of Rs. 2,014 was spent under repairs including the usual annual contribution of Rs. 1,000 paid to the municipality on account of maintenance of Vellore cantonment roads.

. **Trichinopoly.**—Barrack-boxes were supplied to the 17th Regiment, Madras Infantry, at a cost of Rs. 217, and 19 accoutrement-stands were provided for the 4th Pioneers by the Military Department, for which Rs. 217 were paid by this department. Rs. 4,991 were spent in repairing buildings and maintaining cantonment roads at Trichinopoly.

. **Negapatam.**—A bath-room and kitchen were built at a cost of Rs. 699 to the old taluk cutcherry occupied by the Sergeant Instructor, South Indian Railway Volunteer Rifle Corps, at Negapatam.

. In the Tanjore, Negapatam, Madura and Tinnevelly divisions Rs. 1,839 were paid on account of compensation for quarters to the military and medical subordinates.

II.—IMPERIAL—CIVIL WORKS.

. **Vizagapatam.**—Repairs were executed to the Post offices at Vizagapatam and Bimlipatam and to the Telegraph office building at Vizagapatam at a cost of Rs. 500 and 256.

. **Ganjam.**—The special repairs to Post office at Gopálpur were carried out at a cost of Rs. 27.

. **Godavari (East).**—The Post offices at Sámalkót, Bhadráchalam and Kunavaram were repaired at a cost of Rs. 480, and the telegraph buildings at Cocanada and Rajahmundry at a cost of Rs. 384.

. **Kistna (East).**—A kitchen in the compound of Telegraph office at Bezváda was completed at a cost of Rs. 358.

. Additional godowns for the Telegraph offices at Bezváda and Masulipatam were completed:

. The Telegraph offices at Masulipatam and Bezváda were repaired during the year.

. **Kistna (West).**—The Telegraph office at Guntúr was repaired during the year.

. **Coimbatore.**—Repairs to the Post office at Tirupúr and Mettupálaiyam were carried out.

. The total outlay under this head was Rs. 220 against an allotment of Rs. 200.

. **Nilgiris.**—Allotment Rs. 625, outlay Rs. 488, of which Rs. 388 were spent on renewing roof of Post office at Cherambádi and Rs. 100 on improvements to Post-master's quarters at Kótagiri.

. Rupees 881 were spent on repairs, postal, and Rs. 220 on repairs, telegraph buildings.

. **West Coast.**—Iron bars were fixed to the Post-office, Manantoddy, at a cost of Rs. 140.

. Rupees 176 were spent in sinking a well at the Post office, Malapuram, a work still in hand.

. The several Post offices in the division were kept in repair at a cost of Rs. 826.

. **Presidency and Bangalore.**—The work of any importance was carried out in the Presidency division; the few small works carried out were—

The completion, at a total cost of Rs. 1,160, of improvements to the Post office at Mysore commenced last year. The year's outlay was Rs. 246.

Improvements to the Mylapore Post office at Madras commenced and completed in the year at an outlay of Rs. 759 on an estimate of Rs. 773.

Improvements to the Post office at Bangalore commenced and completed in the year at an outlay of Rs. 267 on an estimate of Rs. 264.

. The following repairs were carried out:—

Stopping leaks in roof of Post office at Bangalore; estimate Rs. 162, outlay Rs. 153.

General repairs to the Telegraph Master's quarters at the old telegraph office, Bangalore; estimate Rs. 190, outlay Rs. 194.

Petty repairs to the Telegraph office in Fort St. George; estimate Rs. 160, outlay, Rs. 86.

. **North Arcot.**—Under minor new works in North Arcot a sum of Rs. 29 was spent in providing a sky-light for the Post and Telegraph office at Chittoor.

. Under repairs Rs. 94 were expended in repairing the Post office at Ambúr and the combined Post and Telegraph office at Vellore.

. **Chingleput.**—A sum of Rs. 67 was spent under postal repairs in the Chingleput division in repairing the Post office at Puduvoil.

. **South Arcot.**—In South Arcot division, under Minor New Works, Postal, a verandah to the Post office building at Tindivanam was built and bars were provided for the front door of the building at a cost of Rs. 64 and 17, respectively. Repairs to the Post office at Manjakuppam were carried out at a cost of Rs. 124.

. Under Minor New Works, Telegraph, the iron rails of the old record room at the post-office at Manjakuppam were removed and wooden rails were provided for the Telegraph office in same building at an outlay of Rs. 45.

. **Negapatam.**—*The Telegraph office at Negapatam* was repaired at an outlay of Rs. 108. A sum of Rs. 643 was spent in repairing Post offices at Teppakolum in Trichinopoly, Ammayanayákanúr and Batlagundu in Madura, Kumbakónam and Tranquebar in Tanjore, Tenkási and Palamcottah in Tinnevelly, and at Ramnad. A tiled verandah on the western side of the Post office at Ramnad was also constructed at a cost of Rs. 244.

III.—PROVINCIAL—CIVIL BUILDINGS.

. **Ganjam**—*Additions and alterations to the Police Superintendent's office at Chatrapur.*—Estimate Rs. 4,600. The expenditure to the end of March 1889 was Rs. 3,065 against an allotment of Rs. 4,100.

. *Constructing a Police hospital at Chicacole.*—Estimate Rs. 1,480. The expenditure to end of March 1889 was Rs. 910. This work was commenced in the middle of February 1889.

. *Repairs to the Collector's bungalow at Chatrapur.*—Estimate Rs. 3,372 and expenditure to end of March 1889 Rs. 2, 27. The repairs to this building were stopped as it was afterwards proposed to abandon it and to construct a new one.

. **Vizagapatam**—*Police station-house at Koraput.*—This was an incomplete work of the previous year. The work remaining to be done was carried out during the year and the building was completed at a cost of Rs. 4,251 against a revised estimate of Rs. 4,510 and handed over to the Police Department.

. *Constructing thirty-four Reserve Police huts at Koraput.*—Estimate Rs. 14,800, expenditure Rs. 7,229, against an allotment of Rs. 8,940. The superstructure of two of the four blocks were completed and all woodwork for doors and windows for these blocks was purchased.

. *Additional accommodation to the Huzur Treasury at Vizagapatam.*—This was an incomplete work of the previous year. It was completed at a cost of Rs. 9,711 against the estimate Rs. 9,890 and handed over to the Revenue Department.

. *Constructing an hospital at Gunupuram.*—Estimate Rs. 4,020, expenditure to end of the year Rs. 3,284; the expenditure during the year was Rs. 1,239 against a grant of Rs. 1,480. Superstructure was completed and roofing in progress.

. *Constructing an office for the Superintendent of Police at Koraput.*—Estimate Rs. 12,030, expenditure Rs. 7,320 against an allotment of Rs. 7,500. The walls of the building were raised to a height of 11 feet and roof timber, doors and windows purchased.

. *Constructing a 3rd-class Tahsildar's office at Sálúr.*—Estimate Rs. 10,230, expenditure during the year Rs. 3,470 against a grant of Rs. 3,500. This work is being carried out on contract system. The superstructure of the main building was nearly complete, the compound wall was built and the outhouses were in progress.

. *New Police hospital with subsidiary buildings at Koraput.*—Estimate Rs. 10,540. The expenditure during the year was Rs. 613 against a grant of Rs. 500. Materials were being collected for the work.

. *Constructing the Deputy Tahsildar's office and sub-jail at Potinghi.*—Estimate Rs. 11,700. The expenditure to end of the year was Rs. 4,241. The old building was dismantled; foundations excavated and concrete partly laid; doors and windows purchased.

. *Reconstructing the compound wall of the District Jail at Vizagapatam.*—Estimate Rs. 4,290. The expenditure during the year was Rs. 823 against an allotment of Rs. 1,250.

. *Sub-Registrar's office at Párvatipur.*—Revised estimate Rs. 2,145. The outlay during the year was Rs. 347 against a grant of Rs. 750. The superstructure of the building was almost completed.

. The Warders' lines of the District Jail and Police Superintendent's office at Vizagapatam and seven other minor buildings were repaired at a cost of Rs. 2,989.

. **Godavari (East).**—A lightning conductor was provided to the central tower of Rajahmundry Central Jail at a cost of Rs. 335 against an estimate of Rs. 360.

. *Dispensary at Bhadráchalam.*—Outhouses and a well were completed during the year and the buildings were handed over to the Medical Department in November 1888. The total cost of the building was Rs. 4,001.

. *Residence for the Executive Engineer at Dowlaishweram.*—The servants' quarters and cook-house were completed during the year. The total cost of the building amounted to Rs. 17,349 against an estimate of Rs. 17,012.

. *Repairs to Collector's cutcherry at Cocanada* were carried out during the year at a cost of Rs. 2,562.

. *Repairs to the church at Rajahmundry.*—The corrugated iron required for to this building was obtained from Madras in March 1889 and the repairs repairs were put in hand. Repairs to Public Works buildings were carried out during the year at Dowlaishweram.

. **Godavari (Central).**—Sub-Magistrate's office at Rajole, estimate Rs. 2,750 and expenditure Rs. 3,077.

. *Conversion of the store-shed at Rolli into Divisional office.*—Estimate Rs. 3,040. This work was completed at a cost of Rs. 3,738 and the building was transferred to Provincial.

. Repairs were carried out during the year to the Sub-Magistrate's cutcherry at Kottapetta and the old Division office at Gunnavaram at a cost of Rs. 166.

. **Godavari (West).**—The following works were completed or in progress during the year:—

	Estimate. Rs.	Outlay. Rs.
(1) Constructing 1st-class taluk cutcherry at Tanuku, completed	23,580	23,347
(2) Constructing 1st-class taluk cutcherry at Bhímavaram, completed	25,070	24,615
(3) Sub-Registrar's office, Tanuku, completed except fixing iron bars to the cracked portions	3,090	3,075
(4) Sub-Registrar's office at Bhímavaram; materials being collected	3,420	535
(5) Sub-Registrar's office at Narsápur; tiling in progress ...	3,430	762
(6) Do. at Ellore; roofing nearly completed.	3,380	3,398

Necessary repairs were executed to the old hospital at Ellore.

. **Kistna (East).**—Repairs to the Collector's residence at Masulipatam were completed, but the accounts were not closed. The expenditure on the work amounted to Rs. 14,153 against an estimate of Rs. 14,305.

. A corrugated iron goods shed in the fort of Masulipatam was nearly completed. The expenditure amounted to Rs. 4,616 against an estimate of Rs. 4,500. The excess over estimate was due to the necessity for replacing some iron work broken in landing.

. Two Head Constables' and ten Constables' huts at Bezvádá were completed. The expenditure amounted to Rs. 3,585 against an estimate of Rs. 4,538.

. The following buildings were repaired during the year:—

(1) Kistna Eastern Division office.
(2) Superintending Engineer's residence and office.
(3) Press office and cook-room of the Collector's cutcherry at Masulipatam.
(4) Protestant cemetery in the fort of Masulipatam.

. **Kistna (West).**—The Sub-Registrar's office at Bápatla was completed at a cost of Rs. 2,930 against an estimate of Rs. 2,860. The building was finally handed over to the Registration Department in November 1888.

. Work on the taluk cutcherry at Pattenapalle was in progress. The expenditure amounted to Rs. 6,848 against an estimate of Rs. 21,880.

. Improvements to the taluk cutcherry at Répalle were in progress. The expenditure amounted to Rs. 796 against an estimate of Rs. 1,845.

. Repairs to the Karempúdi District Munsif's Court and the Division office at Duggirala were completed. The plantations in the Division office compound at Duggirála were maintained.

. **Nellore.**—The District Jail at Nellore was completed and handed over to the Jail Department. The expenditure amounted to Rs. 7,518 against an estimate of Rs. 6,491. The excess was owing to additional work found necessary.

. *Collector's office, Nellore.*—The basement was completed, and the doors and windows prepared in the Nellore workshops. The expenditure amounted to Rs. 14,457 against an estimate of Rs. 48,455.

. Materials were under collection for the Sea Custom-house at Kistnapatam.

. The following works were completed during the year:—

(1) Improvements to Sub-Collector's bungalow at Ongole.
(2) Sub-Registrar's office at Kandukúr.
(3) Quarters for the Sub-Divisional officer, Gúdúr.
(4) Improving Huzur treasury room.

. The following buildings were repaired during the year:—

(1) Old Sheristadar's room of Collector's cutcherry, Nellore.
(2) Sub-Collector's cutcherry, Ongole.
(3) Hill bungalow at Ongole.
(4) Sub-Collector's bungalow at Ongole.
(5) Collector's bungalow at Nellore.
(6) Nellore Division office.
(7) Police Assistant Superintendent's bungalow at Ongole.

. **Bellary.**—The two new wings of the Collector's office were completed with the exception of iron spiral stair cases to the towers, flooring of verandahs and the final courses of tiles and plaster to the terraced roofs. Estimate Rs. 47,540, outlay Rs. 17,067, previous year's outlay Rs. 27,131.

. The lower storey of the Collector's residence at Anantapur was completed. Owing to several causes the progress on the work was not quite satisfactory. Estimate Rs. 28,190, outlay during the year Rs. 730, previous year's outlay Rs. 23,759.

. The walls of the seven Police huts at Vanavole were completed and the arched roofs commenced.

. Materials at an outlay of Rs. 3,885 collected for the first-class taluk office at Kúdligi. Estimate Rs. 23,871, grant Rs. 3,804.

. The undermentioned minor new works were carried out:—

	Outlay. Rs.
(1) Covering with corrugated iron the roof of the combined Superintending and Executive Engineers' office	1,324
(2) Robing room and gateway to the cemetery at Bellary	514
(3) Arm rack for the Collector's cutcherry at Anantapur	42
(4) Platform to the new Press office at Anantapur	114
(5) Arm racks for the Bookapatam cutcherry	21

. **Cuddapah.**—The roof of the upper storey of the Collector's office, as also of the four large and four small domes and cut-stone mantapams were finished, and the roof of the lower storey also completed. The Printing office was completed and handed over to the Revenue Department. Estimate Rs. 1,43,741, grant for the year Rs. 35,655, outlay of the year Rs. 35,349, outlay up to date Rs. 1,17,310.

. The year's allotment, Rs. 11,342, for alterations and improvements to the district jail was fully worked out. A revised estimate providing for the extra improvements carried out and for adding a compound wall was under preparation. Estimate Rs. 31,900, grant Rs. 11,342, outlay Rs. 11,342, outlay up to date Rs. 35,245.

. The Registrar's office at Cuddapah was completed at a cost of Rs. 5,449 against an estimate of Rs. 5,192.

. The walls of the main building of the taluk office at Rajampet and of the cook-room and latrine were built to the full height. Trusses were being put to the main building, and materials for flooring and tiles for roofing were collected. Estimate Rs. 24,838, grant for the year Rs. 10,000, outlay of the year Rs. 9,970, outlay up to date Rs. 13,444.

. The timberwork of the roof of Christ Church at Cuddapah was almost finished and new ventilators were put up. Estimate Rs. 3,176, grant for the year Rs. 3,176, outlay of the year Rs. 2,470, outlay up to date Rs. 2,470.

. The superstructure of the Divisional office at Cuddapah was built up to 8 feet height Estimate Rs. 8,508, grant for the year Rs. 3,157, outlay of the year Rs. 2,781, outlay up to date Rs. 2,781.

. The foundations of the taluk office at Badvél were almost finished. The outlay during the year amounted to Rs. 5,018 against an allotment of Rs. 5,000. Estimate Rs. 21,330.

. **Kurnool.**—Work on the taluk office at Nandyál was almost completed. Estimate Rs. 24,638, grant for the year Rs. 9,000, outlay Rs. 8,921, outlay up to date Rs. 24,638.

. Nine constables' huts at Pattikonda were completed at a cost of Rs. 2,814 against an estimate of Rs. 2,903.

. The walls of the Head Assistant Collector's office at Nandyál were raised to roof level and the woodwork for the roof was collected. Estimate Rs. 14,234, grant for the year Rs. 5,593, outlay for the year Rs. 5,089, outlay up to date Rs. 5,187.

. **Nilgiris.**—Rupees 7,996 were spent in additions and improvements to Government House, Ootacamund, the principal items of expenditure being—

	Rs.
Furniture	4,000
Married Bandsmen's quarters	1,800
Connecting Government House with Snowdon water-supply ...	1,800

. Rupees 3,817 were spent on completing the repairs to Mountstuart buildings occupied by Army head-quarters, the total expenditure being Rs. 20,464 against an estimate of Rs. 22,330. The buildings are now in a satisfactory condition.

. The peons' quarters on Mountstuart were improved at a cost of Rs. 2,000, the principal item being a new roof.

. *Providing accommodation for the Subordinate Judge at Ootacamund.*—The outlay during the year was Rs. 8,028. The total expenditure on this work, which includes the new Breeks' school, amounts to Rs. 58,055 against an estimate of Rs. 59,030, and the work was practically completed during the year, only some petty items remaining to be done.

. The Roman Catholic church at Wellington was supplied with furniture at a cost of Rs. 2,259.

. The Protestant church at Wellington was supplied with furniture at an outlay of Rs. 3,762.

. Rupees 945 were spent in completing the alterations to the District Jail buildings at Ootacamund.

. The outlay on minor works during the year was Rs. 11,203.

. The following are the principal works :—

	Rs.
(1) Covering with Mangalore tiles the roof of All Saints' church at Coonoor	1,414
(2) Repairs to the Police station and huts at Coonoor	1,246
(3) Constructing two additional huts and providing courtyards to the existing huts at Kótagiri	2,203
(4) Making alterations to Secretariat peons' quarters on Stonehouse hill, Ootacamund	1,882
(5) Constructing outhouses to Police Inspectors' quarters at Nellakóta	676
(6) Repairs to Police station and huts at Wellington	791

. A sum of Rs. 16,020 was spent on repairs, the chief items being—

(1) Repairing Government House and subsidiary buildings	2,940
(2) Government office on Stonehouse hill	931
(3) All Saints' church, Coonoor	739
(4) St. Thomas' church, Ootacamund	624
(5) Deputy Tahsildar's cutcherry, Coonoor	1,262
(6) Place-of-arms on Mountstuart	1,240

. **Coimbatore.**—The following works were completed :—

(1) Constructing a Sub-Registrar's office at Kollégal; estimate Rs. 2,630, outlay during the year Rs. 1,558, outlay up to date Rs. 2,458.

(2) Repairs to the Sub-Collector's bungalow at Hosúr; estimate Rs. 2,730, outlay during the year Rs. 2,800.

. The following major works were in progress :—

(1) Additions to the Central Jail at Salem; estimate Rs. 6,340, outlay during the year Rs. 4,627 against a grant of Rs. 4,955. A sum of Rs. 328 was not utilized on this work owing to an outbreak of cholera which led to the work being stopped for two months at the request of the Jail authorities.

(2) Constructing District Munsif's Court at Karúr; estimate Rs. 17,420, outlay during the year Rs. 6,385 against a grant of Rs. 8,000. The short outlay is due to want of exertions on the part of the contractor who was fined Rs. 50.

(3) Repairs and improvements to the Government taluk school at Námakal; estimate Rs. 4,300, outlay Rs. 2,940 against a grant of Rs. 3,220.

(4) Constructing a sub-jail at Mettupálaiyam; estimate Rs. 3,220, outlay Rs. 2,940 against a grant of Rs. 3,220.

. A sum of Rs. 5,008 was spent under minor original works against an allotment of Rs. 5,012.

. The following works were completed during the year :—

(1) Repairs to the Overseer's shed at Karúr; outlay Rs. 230.

(2) Improvements to the late Division office building at Hustampatti; outlay Rs. 156.

(3) Converting eastern lock-up of the Deputy Tahsildar's cutcherry at Vániyambádi into a jail wall and Police lock-up; outlay Rs. 244.
(4) Repairs to the taluk office at Tirupatúr; outlay Rs. 1,054.

The following works were in progress:—
(1) Constructing masonry compound wall on two sides of the Superintending Engineer's office, Coimbatore; outlay Rs. 1,080.
(2) Constructing a Sub-Registrar's office at Vániyambádi; outlay Rs. 1,884.
(3) Improvements to the quarters of the Assistant Superintendent of Police at Tirupatúr; outlay Rs. 112.

A sum of Rs. 4,443 was spent on repairs, the chief items being—
(1) Repairing the Superintending and Executive Engineers' office, Coimbatore; outlay Rs. 394.
(2) Repairing the Sub-Collector's bungalow, Erode; outlay Rs. 239.
(3) Repairing the bungalow of the Assistant Superintendent of Police, Erode; outlay Rs. 269.
(4) Repairing the Collector's bungalow at Salem; outlay Rs. 115.
(5) Repairing District Munsif's Court at Tirupatúr; outlay Rs. 601.
(6) Repairing the late Divisional office building at Hustampatti; outlay Rs. 443.
(7) Repairing the Deputy Tahsildar's cutcherry at Vániyambádi; outlay Rs. 931.
(8) Repairing the bungalow of the Assistant Superintendent of Police at Tirupatúr; outlay Rs. 405.

West Coast.—The following works in connection with the Law Courts at Calicut were completed during the year:—
(1) Passages to the District and Sub-Courts.
(2) Providing planked screen and buttresses to the Vakils' chambers.
(3) Constructing surface drains in the compound.

The grant of Rs. 13,350 for the year was utilised.

The outhouses of the public office at Ponáni were completed and wire-fencing around the building commenced; outlay during the year Rs. 4,685, grant Rs. 5,337.

The Sea Custom-house and store-shed at Cochin were completed and handed over to the Revenue Department. Total outlay Rs. 12,368 against the estimate of Rs. 12,680.

A wharf wall of sheeted timber piles for Sea Custom-house, Cochin, was constructed and nearly completed at a cost of Rs. 4,695.

The residence of the Assistant Superintendent of Police, Malapuram, was completed and handed over for occupation; some additional work done during the year consisted of—
(1) Raising a new carriage road around the building.
(2) Constructing a tiled covered way from the main building to the outhouses.
(3) Opening drains and constructing masonry culverts.
(4) Providing matting for floor.

The expenditure during the year was Rs. 1,645, total outlay from the commencement of the work being Rs. 14,245 against an estimate of Rs. 14,370.

A new Sub-Judge's and District Munsif's Court at Pálghat was commenced, and the year's grant Rs. 7,200 utilised in collecting materials. The excavation for foundation was completed and laying concrete in the foundation begun.

The work in connection with the new Collector's cutcherry at Calicut—sanctioned estimate Rs. 1,89,970—was begun late in the year, and Rs. 8,000 spent in collecting materials and Rs. 6,000 in paying compensation; that paid by the Revenue Department up to March had not been communicated; clearing of the site and collection of material could alone be undertaken.

A sum of Rs. 7,491 against a grant of Rs. 7,480 and estimate of Rs. 9,280 was expended in building 12 solitary cells for lunatics and 4 condemned cells in the District Jail, Calicut. The former were completed and handed over to the Jail Department and the condemned cells were in progress.

. The construction of a new Sub-Court at Tellicherry was commenced towards the end of the year, and Rs. 2,000 spent in the collection of materials.

. The additions and improvements to the office of the Superintendent of Police, Mangalore, an incomplete work of the previous year, was finished. Estimate Rs. 10,545, outlay Rs. 10,485.

. A Deputy Collector's cutcherry at Puthur was nearly completed, the full grant of Rs. 9,000 being spent against an estimate of Rs. 10,960.

. A new Police hospital at Mangalore was far advanced towards completion; grant Rs. 9,000, which was spent against an estimate of Rs. 11,745.

. The following works were in progress:—

(1) Constructing a Tahsildar's office at Coondapoor; estimate Rs. 32,950, grant Rs. 4,000, outlay Rs. 4,357.
(2) Improvements to the second and third blocks of the Collector's cutcherry, Mangalore; estimate Rs. 15,060, grant Rs. 2,000, outlay Rs. 2,658.
(3) Improvements and additions to the District Munsif's Court at Kásaragód; estimate Rs. 4,700, grant Rs. 721, outlay Rs. 724.
(4) Sinking a well 45 feet deep in the cemetery at Mangalore; estimate Rs. 390, outlay Rs. 250.
(5) Providing iron gratings to the wells in the District Jail compound, Mangalore; estimate Rs. 420, outlay Rs. 243.
(6) Constructing a Sub-Registrar's office at Tripayar; estimate Rs. 3,335, outlay Rs. 2,893. Almost finished.
(7) Constructing a Sub-Registrar's office at Chowghat; estimate Rs. 3,240, outlay Rs. 2,815. Nearly finished.
(8) Providing additional accommodation in the Sub-Registrar's office, Betut-Pudiangody; estimate Rs. 1,350, outlay Rs. 601. In progress.
(9) Constructing a compound wall to, and improving the church at, Malapuram; estimate Rs. 770, outlay Rs. 700.
(10) Supplying and fitting iron safes to the Taluk treasury at Pálghat; estimate Rs. 500, outlay Rs. 417.

. The following works were completed during the year:—

(1) Improvements and additions to the Sub-Registrar's office, Quilandi; estimate Rs. 1,010, outlay Rs. 980.
(2) A 3rd-class Police station, Irrity; estimate Rs. 1,240, outlay Rs. 1,248.
(3) Providing a planked ceiling to jail wards of Sub-Magistrate's cutcherry, Kutaparamba; estimate Rs. 242, outlay Rs. 241.
(4) Supplying and fitting iron safes to the Taluk treasury, Chirakal; estimate Rs. 500, outlay Rs. 439.
(5) Constructing a Sub-Registrar's office at Vittal; estimate Rs. 3,240, outlay Rs. 3,230.
(6) A wrought iron strong room for the Taluk cutcherry, Kásaragód; estimate Rs. 750, outlay Rs. 777.
(7) Constructing a masonry drain on the District Court-house hill at Mangalore; estimate Rs. 320, outlay Rs. 321.
(8) Wire-fencing around the District Munsif's Court, Puthur; estimate Rs. 480, outlay Rs. 487.

. A sum of Rs. 6,110 was spent on repairs, the following being the principal works:—

(1) Repairs to the church and belfry at Malapuram; estimate Rs. 1,000, outlay Rs. 899.
(2) Repairs to St. Mary's church, Calicut; estimate Rs. 1,315, outlay Rs. 549.
(3) Repairs to roof and godown and drains of new Custom-house, Calicut; estimate Rs. 1,284, outlay Rs. 1,147.

(4) Repairs to the roof of Police Superintendent's office at Calicut; estimate Rs. 667, outlay Rs. 787.

(5) Repairing the protective works of the Sub-Collector's bungalow, Tellicherry; estimate Rs. 644, outlay Rs. 595.

(6) Annual repairs to St. John's church, Cannanore; estimate Rs. 400, outlay Rs. 327.

(7) Annual repairs to Supervisor's and Overseer's quarters, Vayitri; estimate Rs. 504, outlay Rs. 537.

. **Presidency and Bangalore**—*City Reserve Police Lines at Pudupet*, commenced in 1886-87, were finally completed and handed over to the Police Department on the 1st April 1889. The total outlay was Rs. 31,336 against an estimate of Rs. 32,725.

. *Additions and improvements to the Presidency Training School for Mistresses* was commenced during the year, but the progress of the work was unsatisfactory. The outlay Rs. 4,310 and the grant Rs. 15,000.

. *New operation room at the General Hospital, Madras*, was commenced during the year, but on this work too the progress was unsatisfactory. The year's outlay was only Rs. 2,535 against an estimate of Rs. 11,590 and grant of Rs. 7,000.

. *The conversion of two of the work-sheds at the Lunatic Asylum, Madras, into single rooms* was commenced during the year, and an outlay of Rs. 2,820 was incurred on the estimate of Rs. 7,100.

. *The construction of quarters for Assistant Matron and for the second-class European servants at the Lunatic Asylum, Madras*, was commenced and Rs. 1,196 was spent on an estimate of Rs. 12,445.

. Thirty-nine minor new works were carried out at a cost of Rs. 9,504.

. One hundred and thirteen repair works at Madras and 16 in Bangalore were carried out, and a sum of Rs. 2,829 was spent on account of furniture for Government houses at Madras, Guindy and Ootacamund.

. None of the repair works at Bangalore were of much importance.

. The following were the principal repair works carried out in Madras:—

(1) Thorough repairs to Government House, Madras, and subsidiary buildings; estimate Rs. 7,300, expenditure Rs. 6,395.

(2) Plastering with cement the outside of the Secretariat office, Fort St. George, an incomplete work of the previous year; estimate Rs. 13,500 and outlay Rs. 7,362.

(3) General repairs to the office of the Inspector-General of Police; estimate Rs. 1,410, outlay Rs. 978.

(4) Thorough repairs to Presidency Magistrates' Court; estimate Rs. 1,123, outlay Rs. 1,014.

(5) General repairs to Public Works Stores and Workshops, an incomplete work of the previous year; estimate Rs. 9,392 and outlay Rs. 4,203.

(6) Repairing punkahs, &c., of St. Mathias' Church, Vepery; estimate Rs. 1,210, expenditure Rs. 1,101.

. **North Arcot.**—*Condemned cells, wards for male and female lunatics and construction of gallows at the Central Jail, Vellore*, were commenced and completed in the year. The total outlay was Rs. 3,983 on an estimate of Rs. 4,188.

. Seven minor new works were in progress, of which six were completed. The year's expenditure was Rs. 4,257.

. Nine repair works were in progress, of which five were completed. The outlay was Rs. 981.

. **Chingleput.**—*Improvements to laboratory of the Madras Agricultural College* were in progress on the revised estimate of Rs. 9,920 and an outlay of Rs. 2,324 was incurred in the year. Works in lower storey completed and also terrace roof of verandah all round, except portion of staircase.

. *Additional accommodation and improvements to Teachers' College at Saidápet* were commenced on an estimate of Rs. 14,460, and an outlay of Rs. 2,999 was incurred. Work on additions was completed up to basement level.

. Waiting and tiffin rooms for students of the Agricultural College were completed at a total cost of Rs. 3,456 on an estimate of Rs. 3,500.

. Six minor new works were carried out at a total cost of Rs. 731.

. The buildings and roads at Government House, Guindy Park, the Deputy Collector's office at Guindy and other buildings, churches, &c., were repaired at a total outlay of Rs. 11,345.

. Three minor new works were in progress one of which, an incomplete work of last year, was completed. The total outlay incurred was Rs. 761.

. *Public Works Stores and Workshops.*—In the Public Works Stores and Workshops under original works the extension of the smiths' shop, walling-in and improving the drainage of the store-yard, reroofing the stable and outhouses, and the construction of two fire engine sheds were commenced and the two last-mentioned works were completed.

. **Trichinopoly**—*Constructing District Jail at Trichinopoly.*—So far as this department was concerned, the work was completed. To block No. 5 A, which is being carried out by the Jail Department, much was not done. The expenditure during the year was Rs. 3,539 against the final grant of Rs. 4,110; the total expenditure was Rs. 73,904 against the revised estimate of Rs. 85,244.

. *Registrar's office at Trichinopoly* was completed and handed over. Expenditure Rs. 4,842, estimate Rs. 5,000.

. *Conversion of the Royal Artillery Barracks into an office for the Collector* was in progress. Estimate Rs. 5,300, outlay Rs. 2,537. The estimate is under revision.

. *Construction of a compound wall and a latrine for the District Munsif's Court at Ariyalúr* was completed at a cost of Rs. 1,260, of which Rs. 872 were spent during the year. Estimate Rs. 1,230.

. The Central Jail at Trichinopoly was repaired at an outlay of Rs. 2,402 and Rs. 220 spent were on repairs to the store-room, Executive Engineer's office, Ariyalúr Munsif's Court and St. John's church.

. **Tanjore.**—*Combined Court-house for the District Munsifs of Kumbakónam and Valangiman* was completed at an outlay of Rs. 34,840, of which Rs. 24,470 were spent up to the preceding year against the estimate of Rs. 34,342. The excess over estimate and appropriation was due to extra work found necessary.

. *Improvement to the Taluk Cutcherry at Máyavaram* was completed at a total cost of Rs. 12,703 against an estimate of Rs. 11,680, the outlay during the year being Rs. 7,166. In this case also the excess was due to additional work which had to be done.

. *Six huts at Nalludy for the Land Custom Police* were completed at a cost of Rs. 1,970, of which Rs. 1,830 were spent in the year against an estimate of Rs. 1,950.

. *Police station-house at Vallam* was in progress during the year at an outlay of Rs. 982 against a grant of Rs. 1,000 and estimate of Rs. 2,260.

. A sum of Rs. 1,392 was spent on repairs to the Juruthkana in the Tanjore palace, the taluk cutcherry at Kumbakónam, Division office, Tanjore, Sub-Registrar's office, Police station and store-shed at Kumbakónam.

. **Negapatam.**—*Improvements to the District Munsif's Court-house at Mannárgudi*, which remained incomplete at the close of the preceding year, were completed at a cost of Rs. 5,234, of which Rs. 1,175 were spent during the year, the estimate being Rs. 5,010.

. *The District Munsif's Court-house at Tiruválúr*, for which materials were collected in the preceding year, was nearly completed, the total outlay being Rs. 12,892, of which Rs. 7,758 were spent during the year. Estimate Rs. 14,230. A portion of plastering, flooring and roofing remained incomplete.

. *Alterations and improvements to St Joseph's College buildings at Negapatam to fit them for use of public offices*, partly carried out in the preceding year, were all completed and accounts closed, with the exception of one sub-work, viz., general improvements to the main building; estimate Rs. 2,900, as in this case some small

items of work had to be rejected. The expenditure during the year was Rs. 15,388 and the total outlay, including the purchase of the buildings, was Rs. 53,267 against an estimate of Rs. 53,505.

. *Improvements to the Executive Engineer's bungalow at Negapatam* were nearly completed at an outlay of Rs. 898 against an estimate of Rs. 976.

. A sum of Rs. 1,620 was spent in repairing taluk cutcherry at Pattukóta, Sub-Division office at Mannárgudi, Executive Engineer's bungalow at Negapatam, and old District Munsif's Court, and in paying municipal tax for certain buildings.

. **Madura.**—In connection with the "preservation of Tirumal Naick's palace and adaptation for public offices," the only works that remained incomplete at the end of the preceding year were "locating the Collector's office," estimate Rs. 44,640, and "providing wooden record-racks to the District Court," estimate Rs. 2,830. These two sub-works were completed, the former at a cost of Rs. 42,645 and the latter at Rs. 2,702, the outlay during the year being Rs. 2,031 and Rs. 270, respectively. The total outlay on the palace works was Rs. 3,35,746.

. *Improvements to the District Munsif's Court at Dindigul* were completed at a cost of Rs. 2,703 against the estimate and grant of Rs. 2,680.

. *Providing wire-netting, &c., to the District Jail at Madura* was also completed at an outlay of Rs. 4,247, of which Rs. 157 were spent in the preceding year, the estimate being Rs. 4,482.

. *The construction of a 3rd-class Police station-house at Virapandi*, which remained unfinished at the end of the preceding year, was completed at a cost of Rs. 3,062, of which Rs. 1,007 were spent during the year, the estimate being Rs. 2,930.

. *The construction of a 3rd-class Police station at Samayanallur* was also completed at an outlay of Rs. 2,888, of which Rs. 847 were spent during the year, the estimate being Rs. 2,690.

. *The construction of Sub-Registrar's office at Tirumangalam*, which remained incomplete at the end of March 1888, was completed during the year at a cost of Rs. 3,250, of which Rs. 2,407 were spent in the preceding year, the estimate being Rs. 2,864.

. *Improvements to the Deputy Tahsildar's office at Usilampatti*, estimate Rs. 2,420, were only partly carried out at an outlay of Rs. 2,011 owing to the failure of the contractor.

. *The construction of four Reserve Police huts at Madura* was also completed at a cost of Rs. 1,126 against an estimate of Rs. 1,166.

. A sum of Rs. 3,142 was spent in repairing and maintaining Tirumal Naick's palace at Madura and in repairing District Munsif's Court at Dindigul, Deputy Tahsildar's office at Usilampatti, Sub-Collector's office and residence at Dindigul, and in paying municipal taxes for certain buildings.

. **Tinnevelly**—*Tahsildar's office at Srivaikuntham.*—Estimate Rs. 25,940. The walls all round were built to the top of the doorways or to an average height of 8 feet, and Rs. 9,570 spent from the grant of Rs. 10,000. The progress was slow owing to the neglect of the contractor.

. *Construction of subsidiary jail and outhouses to the Deputy Tahsildar's office at Kulasekharapatnam* was in progress. Walls fully raised, trusses and rafters put in, and Rs. 2,778 spent against the estimate of Rs. 3,900 and grant of Rs. 2,780. The work being situated in an out-of-the-way place was not completed.

. *The reconstruction of Sub-Division and Overseer's office at Puthugudi* was nearly completed; the outlay was Rs. 1,924 from the final grant of Rs. 2,230 and against the estimate of Rs. 2,630. The contractor made slow progress.

. *The reconstruction of the Printing office at Kokarakulam* was completed at a cost of Rs. 8,620, the grant and estimate being Rs. 8,960.

. *The construction of a 3rd-class Police station-house at Masurapatty*, estimate Rs. 1,260, and *the construction of a Police station-house at Nángunéri*, estimate Rs. 1,800, were partly carried out, and Rs. 759 and 694 spent thereon, respectively. The former was not completed as it is in an out-of-the-way place and the latter was started late in the year.

. *Improvements to the District Court-house at Kokarakulam* were completed at a cost of Rs. 21,819, of which Rs. 4,926 were spent during the year, the estimate being Rs. 21,030. The excess of Rs. 789 over the estimate was due to the workshop liabilities having exceeded the amount provided for the lightning conductors in the estimate.

. *The construction of Police huts at Virudupati* was completed at a cost of Rs. 1,274, the estimate being Rs. 1,340.

. A sum of Rs. 950 was expended on petty repairs, &c., to eleven works, of which nine were completed.

. **Ramnad**—*District Munsif's Court-house at Paramagúdi.*—Estimate Rupees 12,693. Foundation and basement were completed and walls raised to 10 feet height, and door and window frames fixed; materials for roofing collected. Rs. 7,861 were spent against the final grant of Rs. 8,000.

. The Police Assistant Superintendent's bungalow at Ramnad and the Sea Custom office at Devipatam were repaired at a cost of Rs. 994.

. **Consulting Architect**—*New Law Courts, Madras.*—This was the most important work in progress. An estimate, amounting to Rs. 1,44,131, was sanctioned in March 1888 for the preparation and collection of materials, and a sum of Rs. 2,15,000 was provided for expenditure during the year. In September 1888 an approximate estimate of Rs. 9,45,000 was accepted, and the commencement of the buildings was authorised. At the close of the year the foundations had been laid and the work completed up to level of basement floor. The progress of the work was very satisfactory, although some delay was caused by the slowness in diverting the line of railway, the failure of the contractor to supply bricks, and the non-arrival of English stores indented for, in consequence of which the entire grant for the year was not expended. The design includes provision for the High Court, Original and Appellate Sides, the Court of Small Causes, and the following Law officers:—

Advocative-General.	Official Assignee.
Clerk of the Crown.	Official Trustee.
Crown Prosecutor.	Administrator-General.
Law Reporter.	

. *New Court-house for the Presidency Magistrate, Police station and Fire-Engine room, Madras.*—This building was completed, with the exception of some exterior decorative work, and occupied by the Magistrates in March 1889. The total expenditure was Rs. 45,437 against an estimate of Rs. 49,830.

. *Additions to the College of Engineering, Madras.*—This work was completed and occupied in August 1888. The additions have greatly improved the appearance of the Chepâk buildings. The estimate amounted to Rs. 90,066, but the work was completed at a total outlay of Rs. 76,786. ~~(The large saving of Rs. 13,280 was mainly due to the excellent management of Mr. J. H. Stephens, the Honorary Assistant Engineer, in immediate charge of the work.)~~

. *Additions to the Medical College, Madras.*—This comprised seven separate items of work aggregating Rs. 75,326, viz.,—

		Rs.
(1)	Dissecting house	36,830
(2)	Improving light and ventilation of and adding galleries to the three lower rooms of north wing	9,026
(3)	Improving, lighting and ventilation of present anatomical theatre.	196
(4)	Erecting galleries, &c., in library	5,425
(5)	Adding an upperstorey to the north wing	13,999
(6)	Completing verandah round front and sides of building	8,775
(7)	Improving outhouse rooms	1,075
	Total ...	75,326

Items Nos. (4), (5) and)7) were almost completed. Item (6) was in progress. Items (1), (2) and (3) are not now required. A revised estimate for the work, amounting to Rs. 27,904, was sanctioned in May 1889.

. *Constructing an intermediate floor in the Library, Presidency College.*—This work was successfully completed and the new floor occupied by the Professor of Biology at the end of the vacation in July 1888. The total outlay was Rs. 7,702 against an estimate of Rs. 8,715.

. *Police Station, Vaccination Depôt and Registrar's office at Madras.*—This work was completed and occupied in July 1888. The work reflects great credit on Sergeant Smith in immediate charge. The total outlay was Rs. 11,558 against an estimate of Rs. 12,000.

. *Constructing a large shed in the grounds of the building lately occupied by the office of Director, Public Instruction, to accommodate the Army Clothing Department.*—The large shed and other minor additions were completed. The two sheds for accommodating the Bombay Clothing Agency remained to be executed. The expenditure amounted to Rs. 15,915 against an estimate of Rs. 31,429.

. *Alterations to the old Mint Buildings, Madras, to fit them for the Government Press.*—This work was completed at a cost of Rs. 16,541 and occupied in December 1888. The sanctioned estimate amounted to Rs. 20,733.

. *Constructing an additional ward at the Ophthalmic Hospital, Madras, for accommodating Native Military Patients.*—The foundations were laid and the walls raised to the required height; roof timbers, doors and windows were being prepared. The estimate amounted to Rs. 5,506 and the outlay during the year was Rs. 3,181.

. *Additions to the Ophthalmic Hospital, Madras.*—These consist of a new kitchen for the apothecary, which is almost completed, and altering the old kitchen into a coach-house and stall for the Superintendent and ceilings for the wards, the planking for which was under preparation, and one ward almost ceiled. The estimate amounted to Rs. 4,517 and the outlay Rs. 2,422.

. *Minor Original Works.*—Rs. 9,132 was expended on twenty different works under this head, the most important of which consisted in improving the Revenue Board building, Chepâk; fitting up a room for the Forest Department Museum and providing iron record racks; constructing a shed at the School of Arts for drawing classes, and other improvements to the building.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Vizagapatam**—*New Potinghi ghât road.*—Estimate Rs. 4,56,581. The outlay to end of the year was Rs. 4,54,060, and the expenditure during the year was Rs. 5,067. The abutments of the 70 feet span iron girder bridge over the Sunki river were carried up to girder platform level and ironwork was conveyed to site and teak planking purchased.

. *Road from Potinghi to Koraput.*—Estimate Rs. 2,81,940The outlay to end of the current year was Rs. 1,39,956. The expenditure during the year was Rs. 37,438 against an allotment of Rs. 40,500. Earthwork was nearly completed excepting 7th, 8th and 20th miles. The first four miles of the road were metalled, consolidated and opened for traffic; 5th, 6th, 13th to 19th miles metalling for the most part completed but not consolidated. The abutments of the bridge over Potinghi nulla were raised to 4 feet in height; 12 drainage culverts and 2 irrigation culverts were built. The inspection house at Dholiam was under construction and the walls raised to a height of 10 feet.

. *Surveying road from Koraput to Frontier of Central Provinces.*—Estimate Rs. 7,545 Outlay to end of current year was Rs. 7,208. The expenditure during the year was Rs. 2,829 against an allotment of Rs. 3,000 and the work was completed.

. The following roads were maintained at a cost of Rs. 10,353:—

(1) Road from Itikivalasa to Potinghi.

(2) Agency fair-weather road from Potinghi to Koraput.

. **Godavari (East).**—The navigation works at Dumagudem were maintained at a cost of Rs. 7,191 during the year. Protective works at head of channel leading from river to Dumagudem lock were carried out at a cost of Rs. 3,024. The stone bund across ruined scouring sluices was built at a cost of Rs. 1,108. The canal was closed for repairs from 15th March to 15th June 1888. 685 boats passed through the canal during the year against 445 in the previous year.

. **Nilgiris.**—

	Rs.
Grant for original works	35,000
Outlay during the year	35,145

. This was all spent on improving the road from Vayitri to Gúdalúr.

. The following are the principal works :—

	Rs.
Earthwork	18,000
Collection of metal	5,300
Choladi bridge	8,500
Meppadi rest-house	1,100
Constructing culverts	2,280

. Rupees 2,820 were spent on minor works against an allotment of Rs. 3,071, the chief items being :—

(1) Improving the approaches and widening the roadway of Pykara bridge ; outlay Rs. 1,038.

(2) Improving the rest-house at Gúdalúr ; outlay Rs. 415.

(3) Renewal of the mile and furlong stones on the Ootacamund and Mettupálaiyam road ; outlay during the year Rs. 482, total expenditure up to date Rs. 1,575.

(4) Toll-house on Kullar-Gúdalúr road ; outlay Rs. 394.

. **Presidency.**—On the widening of the Elephant Gate bridge, which had been almost completed in the previous year, an outlay of Rs. 5,252 was incurred and the work was fully completed at a total cost of Rs. 14,788 against an estimate of Rs. 20,200.

. Under repairs a sum of Rs. 9,058 was paid to the Madras Municipality for the maintenance of the roads leading from the Fort to the Mount and Poonamallee. Rs. 3,381 and Rs. 1,062 were also paid to the municipality for the maintenance of bridges over the Cooum and the Buckingham canal.

. **South Arcot.**—The construction of a masonry bridge across the Ponniár and of an iron girder bridge on masonry abutments and piers across the Gadilam, in place of bridges which were destroyed in the monsoon floods of 1884, were in progress during the year.

. Work on the Gadilam bridge could not be commenced till late in the year owing to some unavoidable delay in fixing upon a site for it. The progress made on the bridge was—

No. 2 Pier from south abutment—Wells built 12 feet and sunk 4 feet,
" 3 Pier—Wells built 12 feet and sunk 7 feet average,
" 4 Pier—Wells built 12 feet and 8 feet sunk,
" 5 Pier—Wells built 16 feet and 9 feet sunk,
" 6 Pier—Wells built 6 feet,
" 12 Pier—Wells built 12 feet and sunk 6 feet

on the north and south abutments and the remaining piers no work was done.

. On the Ponniár bridge the south abutment was raised $5\frac{1}{2}$ feet high above floor level. Nos. 1 and 2 piers from that end were raised $4\frac{1}{2}$ feet above floor level ; the floor of No. 1 archway was completed and that of No. 2 archway in progress. For all the remaining piers and north abutment wells have been built and sunk to various depths, and the construction of retaining walls and floors and hearting of the wells are in various stages of satisfactory progress.

. **Madura**—*Completion of the road from Cumbum to the foot of the Peermedeghát.*—Estimate Rs. 90,507. Rs. 10,827 were spent against the final grant of Rs. 11,329. The progress of the work during the year was not satisfactory owing to difficulty in procuring labor in consequence of progress of works at the Periyár dam. The Kuruvanuth bridge was completed except parapets. There yet remains some Rs. 4,000 worth of work to be done.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

. **Buckingham Canal.**—An estimate of Rs. 21,496 (inclusive of Rs. 4,000 chargeable to the Capital account of the Buckingham canal) for training the banks

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of the Adyár river was sanctioned in April 1887, and an expenditure, amounting to Rs. 4,857, was incurred up to the end of March 1889. A portion of the training bank, 2,218 feet long, was constructed, but during the floods of 1st November last about 250 feet of it was breached, which necessitated an alteration in the line of embankment which now extends over a length of 2,828 feet. This bank was completed and turfing alone remained to be done, to a length of 860 feet; all further work was stopped under orders from the Chief Engineer for Irrigation, and a separate estimate for the completion of the right flood bank was under preparation.

. The lands taken up for archæological research at Mahabalipuram were demarcated. Estimate Rs. 210, outlay Rs. 185.

. **Kistna (East).**—The repairs to the sea dyke at Masulipatam were carried out.

. **Nilgiris.**—Completing the system of the Ootacamund north water-supply scheme cost Rs. 22,095 and the total expenditure on this estimate reached Rs. 1,65,107 at the close of the year against an estimate of Rs. 1,71,365.

. Some fencing, pillar fountains and a few minor items still remain to be done. Rs. 6,539 were spent in improvements to Hobart Park. A new road and grass-ride, levelling, draining, &c., and the fencing and improvements to the Ootacamund lake margin were completed at a total cost of Rs. 25,788 (estimate Rs. 26,150), the year's expenditure being Rs. 10,001.

. A sum of Rs. 2,542 was spent on minor works against an allotment of Rs. 2,476. The principal items being—

(1) Alterations to the road near Adam Memorial Fountain; outlay Rs. 780.
(2) Improvements to the road at Charing Cross; outlay Rs. 397.
(3) Erecting an arbour at Lady Canning's seat; outlay Rs. 370.
(4) Fencing the trees planted on Mountstuart; outlay Rs. 718.

. Under repairs Rs. 382 were spent in clearing weeds in Ootacamund lake.

. **Presidency.**—The construction of self-acting shutters under three bridges on the Cooum river was in progress, and Rs. 3,031 were spent on the work during the year. Four earthen bunds were put up across the same river at a cost of Rs. 303 in order to cover the otherwise insanitary bed with water. Under repairs, Rs. 735 were spent on the conservancy of the Cooum, and Rs. 685 in opening and closing the bar, and four other petty works were carried out at a cost of Rs. 668.

. **South Arcot.**—An expenditure of Rs. 2,307 was incurred under original works in payment of compensation for lands taken up for the embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, a work which had been completed in the previous year.

VI.—LOCAL—INCORPORATED.

. **Rushikulya.**—The Aska and Suradá road was maintained at a cost of Rs. 472.

. **Godavari (East).**—Ordinary repairs were carried out to Kovur-Manjair junction canal at a cost of Rs. 3,562.

. The ferry steamer for the Godávari river was completed during the year at a cost of Rs. 59,608 and handed over to the Revenue Department on the 15th March 1889.

. **Godavari (Central).**—The construction of an iron girder bridge over the Gunnaram canal at 33 miles near Mattam, estimate Rs. 5,000, was put in hand and Rs. 3,137 were spent during the year.

. A sum of Rs. 1,000 was adjusted during the year on account of contribution from local funds towards the construction of the following works:—

(1) Widening roadway on sluice to Kadali channel.
(2) Do. do. on sluice to Manapalle channel.
(3) Do. do. over Vepachettu drain under-tunnel.
(4) Do. do. over Peddapudi channel sluice.

. **Kistna (East).**—The landing stage at Bezváda was completed. The expenditure amounted to Rs. 24,737 against an estimate of Rs. 25,925.

. The ferry road at Bezváda was repaired during the year.

. **Kistna (West).**—Rs. 1,293 were spent against a grant of Rs. 1,325 for the annual maintenance of the river and canal banks used as roads by the public. The banks were kept in fair and trafficable order.

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. The construction of a culvert under the good-water channel at Nizampatam, estimate Rs. 900, was completed.

. A sum of Rs. 8,169 was spent on the bridge to be combined with the Iskápalle aqueduct over the Bhattiprole drain.

. **Nellore.**—The Pennér anicut roadway was gravelled at a cost of Rs. 399.

. **Coimbatore.**—Completing the Talavasal bridge in the Atúr taluk, Salem district—

	Rs.
Estimate	58,500
Grant for the year	10,000
Outlay	1,982

The grant was given in January 1889. The work was commenced in the following month. Concrete laid and $2\frac{3}{4}$ feet superstructure built to retaining walls above bridge for spans 1 and 9; walls for protecting abutments in progress; also excavating foundations for retaining walls to spans 3 and 6. Approaches nearly completed.

. **Madura**—*Construction of a bridge over the Vaigai river.*—Estimate Rupees 3,21,460, grant Rs. 70,475, outlay during the year Rs. 68,083, and total expenditure Rs. 2,64,088. At the beginning of the year the bridge had been completed to the top of the piers and one arch had been turned. During the year the remaining 14 arches were completed, the face walls were finished to the top of the arches, and the blocking course above was almost completed. The approaches were almost finished with the exception of the gap left fo[r] e Mélúr road, and two culverts were constructed on the road.

. Ten miles of the Cumbum-Gúdalúr road were repaired at an outlay of Rs. 1,245.

. **Tanjore.**—One hundred and fifteen miles of road on river banks were maintained at a cost of Rs. 5,652.

. **Trichinopoly.**—Twenty miles of [N]o. 20 from Sankarayur to lower anicut were maintained at a cost of Rs. 883.

. **Negapatam.**—Forty-three and a haf miles of road on river banks were maintained at a cost of Rs. 4,039.

. **Tinnevelly.**—Rs. 3,935, the Local [F]und share, were granted for raising Perungolum surplus channel and road No. 23 [o]f which Rs. 1,663 were paid for compensation for land required. The work could not be put in hand owing to wet cultivation on both sides of the channel.

. A training wall to Thamarakulam supply channel was constructed, the expenditure from the Local Fund share ha[s] been Rs. 109 against the estimate of Rs. 235.

VII.—LOCAL—[E]XCLUDED.

. **Vizagapatam.**—The buildings attached to the lighthouse at Santapalle were repaired, and a detached cook-house for the Assistant Superintendent's house was partly completed.

. **Godavari (East).**—The quarte[rs] the lascars at Vakalapudi lighthouse were completed except a small portion of [p]g. The outlay during the year was Rs. 2,231.

. **Ganjam**—*Constructing an iron pi[er] at Gopálpur.*—Estimate Rs. 3,08,200. The expenditure during the year was Rs. 8,471. This work was completed in July 1888 at a cost of Rs. 2,83,408 and handed over to the Marine Department.

. Emergent repairs to the pier (replacing tie rods, straps, bolts and screws which had fallen into the sea) were carried out during the year.

. *Improvements to lighthouse at Calingapatam.*—Estimate Rs. 1,600. Expenditure to end of the year was Rs. 1,273. This work was commenced in January 1889, but not completed as special labor had to be [o]btained.

. **Buckingham Canal.**—Alteratio and improvements to the Superinten-
dent's quarters, Armeghon lighthouse, wer completed during the year. The total
expenditure amounted to Rs. 1,112 against a estimate of Rs. 1,128.

The following repairs were carried out —

(1) Repairing Lighthouse Superint dent's quarters at Pulicat.

(2) Repairs to Pulicat lighthouse.

The lighthouses at Pulicat and Armeg on were efficiently maintained during the year.

. **West Coast.**—The lightning c luctor of the lighthouse at Mangalore was improved at a cost of Rs. 437.

. The wire-fencing round the lightl se at Calicut and improvements to the store-shed were nearly completed. Estimat s. 1,412, outlay Rs. 1,306.

. The store-room at the lighthouse Tellicherry and the watchman's room at the lighthouse, Cannanore, were repaired a cost of Rs. 93.

. Rupees 495 were spent in const ting a roughstone revetment between groynes B and C near the lighthouse, Cochi o protect the Coast road.

. **Presidency.**—Repairs to the M as lighthouse were completed at an outlay of Rs. 1,023.

. **Chinglepût.**—The construction a lighthouse at the Seven Pagodas, commenced in 1886-87, was completed duri the year, with the exception of a well for the Superintendent's quarters and a ligh ; conductor for the lighthouse. The year's outlay was Rs. 5,006 and the total out o the end of the year was Rs. 11,259, the estimate amount being Rs. 11,952.

. **Tinnevelly**—*Lighthouse-keeper's q ers at Manapad.*—Walls were raised very near to full height and woodwork in p ; Rs. 1,980 were spent from the revised grant of Rs. 2,279 and against the e e of Rs. 3,679. As no contractor would take up the work for a long time ow the inaccessibility of the situation rendering it very difficult to obtain labor a terials, the progress of work was much retarded.

. The construction of staging and on house for Tidal Observatory at Taticorin was completed at a cost of Rs. 1,

. *The construction of a lighthouse at Manapad*, which was commenced in the preceding year, was completed at a total cost of Rs. 1,294, of which Rs. 486 were spent during the year.

. A temporary shed was also built a st of Rs. 83 as temporary quarters for the lighthouse-keeper at Manapad.

. **Negapatam.**—*Extension of the jetty wall at Negapatam*, though slow in progress at first on account of rains, was subs quently pushed on vigorously and the work was completed with the exception of the gap of superstructure at mouth of town drain. This was delayed owing to non-sup of cutstone. Rs. 10,499 were spent against the estimate of Rs. 17,590 and gran f Rs. 10,500.

. *Improvements to the lighthouse at gapatam* could not be completed, the estimate having been sanctioned late in the ar, but only Rs. 136 could be utilised on account of work done in the Public Work Workshops out of the grant of Rs. 470.

. *Filling in boat basin and diverting th ain town drain*, which were commenced in the preceding year, were partly carried t this year, and Rs. 1,628 and 2,659 were spent against the estimates of Rs. 2 4 and 2,900. These works cannot be finished until the extension of the jetty wa completed. Repairs to the jetty wall, commenced in the preceding year, were als completed at a total cost of Rs. 847, of which Rs. 211 were spent in the year. The drainage channel at the jetty wall was improved at a cost of Rs. 519, and damages caused to the jetty wall by the cyclone were repaired at an outlay of Rs. 211.

B.P. 2436 W.B. 4/7/84

General Remarks.

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Colonel J. O. Hasted R.E., Chief Engineer and Secretary to Govt proceeded during the year on six months special leave, which was afterwards commuted into furlough for 22 months. The administration of the Department devolved in consequence on Colonel H. R. Mead R.E.; who, having held the position of Acting Chief Engineer and Secretary from October 1883 to the middle of March 1884, himself proceeded on six months special leave, handing over charge of the General and Buildings & Roads Branches of the Department to Lieut. Colonel R. L. G. Dundas Scottish R.E., while for the Settlement of Joint Surveys & the Irrigation Branch of the Department, held by Mr. G. T. Walch

since the date of Colonel Hasted's departure, has been continued in his hands, with the position in the Secretariat of Secretary to Government. These appointments have been made pending more definite arrangements which will probably come into force in March 1890.

C.S.

Brett 22.5.89

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Amalgamation of Provincial and Local Establishment for Public Works — This matter was raised in 1886 by the Finance Committee who entered at considerable length into the question of the expense caused by the maintenance of double Establishments for that class of public works which are known as Civil Buildings, Roads, and other services — The Madras Govt after careful consideration of the arguments of the Committee and of local circumstances as obtaining in this Presidency, reported to the Govt of India that it was inexpedient to hand over to the P.W. Department any of the Public Works now under the control of Local Boards. This view was reiterated in the year under notice on the matter being again brought forward; the Government being satisfied that the expenditure from local rates, against which the cost of these works falls, is sufficiently controlled and supervised in this Presidency — As to whether any works now in charge of the P.W. Department could with advantage be handed over to Local Boards, it was found on inquiry that very few

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such works could be transferred — The subject will, however, be kept in view, and if at any time it is found that works appertaining to the P. W. Department in a particular locality can more conveniently be carried out by Local Boards, the needful transfer will be made in the interests of economy; the principle of mutual help between the P. W. Department & Local Boards, hitherto maintained, being kept steadily in view.

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Amalgamation of Provincial and Local Estabts for P. Works

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Accounts Branch. ~~Establishments~~ The report of the Public Service Commission on the accounts Branch of the P.W. Department came under the consideration of the Government of India during the year. The Commission was of opinion that the recruitment for this branch of the service was unsatisfactory. The recruitment has hitherto generally been

(1) by transfer of officers (military & Civil) from the Engineer Establishment of the P.W. Dept:
(2) by promotion of selected accountants from the subordinate service, &
(3) by appointment of nominated candidates outside the service, who have passed a prescribed entrance examination.

The Public Service Commission considered that the number of Engineers and Military officers already employed was excessive, and recommended certain alterations in the mode of recruitment of outside candidates.

The Government of India laid down certain general rules for future recruitment under which appointments to the superior service of the accounts branch of the Dept: will be made mainly from successful Candidates in a nominated (not open) competitive Examination, and occasionally from Senior accountants already on the Establishment. Nominations to the Competitive Examination will rest with the Accountant General. The Candidates who

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pass

pass the examination will be appointed 6 apprentice Examiners in order of merit, and to the extent of vacancies. The nature of the examination to be passed, and other details as to age, &c, have been published in the Gazette of India.

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(~~P. 20~~)

Accounts Branch

The Govt: of India had also under consideration the question of the reduction of accounts work in the offices of Executive Engineers, and appointed a Committee to make a searching inquiry into the system of accounting for receipts and expenditure, and to report how far the present procedure could be simplified without sacrificing administrative control. The duties of the Committee were to thoroughly investigate the procedure as laid down in the P.W. Code and book of forms, and to consider what accounts and returns were essentially necessary for purposes of Control, and what might be dispensed with. The Committee were also to discuss how far the accounts proposed to be retained could be simplified in order to lessen the labor in Executive Engineer's offices. The Committee were further empowered to take the evidence of local officers of experience, and for this purpose held their sittings at the principal stations of the Empire.

R.S.

Rangoon
8.6.87.

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(9) Employment of Pioneer troops on Public Works

His Excellency the Commander-in-Chief brought to notice the desirableness of employing Pioneer troops on such Public Works as might be deemed suitable— He was of opinion that the usefulness and efficiency of these troops, as pioneer battalions, could only be maintained by their frequent employment, in times of peace, on works which would afford some training for the duties required of the men in the field, and which would give them some opportunity of earning working pay; and thus render service in the pioneer battalions popular— The Government accordingly directed that employment should be found for these men when practicable; A certain number being at once sent to the Cuddalore Bridge Works and the Periyar project—

Rangoon
8.6.87.

R.S.

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Employment of Sepoys & troops on Public Works.

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197 Famine Relief Works. In October last, the Collector reported that great scarcity existed throughout the District of Ganjam, that the rains had failed, and that should matters not speedily improve it would be necessary to start Famine Relief Works. The Govt of India had already been asked to make an additional grant for the continuance of work on the Rushikulya Project, and the report of the condition of the district made by the Collector emphasised the demand. Although the Government was not at that time prepared to admit the necessity of starting Relief Works, it entertained grave apprehensions, and arrangements were made for augmenting the P. W. Staff of the district and providing a sufficient supply of tools immediately the necessity for them should become apparent. In order to ascertain the exact condition of affairs, Mr. J. A. Garstin C.S.I., First Member of the Board of Revenue, was deputed, on the 25th October, to proceed to Ganjam, and report to Government the result of his personal

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observations - He was at the same time authorised to take the necessary steps for putting in hand at once the works connected with the Rushikulya project under the rules prescribed by the Famine Code for Professional Agency Works should in his opinion, the condition of the district render such a step advisable. Mr Garstin did not consider it necessary to exercise the power conferred on him to order the immediate commencement of the Rushikulya Project as a Famine Relief Work, but thought it sufficient to direct the Executive Engineer to receive all able bodied applicants for labor that came to him, to carry on the work in the ordinary way, to indent for a large supply of tools, and to arrange with the Collector for a supply of small coin in case daily payments should become necessary. Between the 9th November, when the Russellkonda reservoir work was recommenced and the 24th Idem, the total number of work people who came to the Canal Works was 2522. Mr Garstin also recommended that steps should be at once

taken to begin work on the Ganjam - Gopalpore Canal, ~~as an ordinary departmental work~~, as should the distress spread, there would not be sufficient room on the Rushikulya project for all persons who might be expected to apply for work. This latter work would provide employment for all distressed persons throughout the Eastern portion of the district. Should these two large works not afford sufficient employment, 9 lenes of road were suggested as subsidiary works.

These recommendations were approved by Govt, who directed the immediate entertainment of the required additional P.W. Establishment, and the provision of the requisite supply of tools. The Rushikulya project works were calculated to afford employment to some 20.000 laborers for the ensuing 4 or 5 months. The grant for the work then amounted to Rs 43.000, and after the 1st April there would be 3½ lakhs available. The Ganjam Gopalpur Canal would afford employment for 4000 coolies for 5 months, and an allotment of Rs 30.000 was made for immediate requirements - The numbers employed on the works at the close of the year were as follows:-

	Men.	Women.	Children.	Total.
Rushikulya	5694	2982	2421	11097
Ganjam Gopalpur Canal	4315	3329	505	8149
	10.009	6311	2926	19.246.

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(Famine Relief Works)

(4) Madras Harbour Works.- At the close of the previous year the Harbour Trust Board had under consideration the report of the London Committee on the best position for the Entrance to the Harbour, a question which had been reopened in consequence of the effects of the Cyclone of 1887- The Board submitted their report in April 1888. They considered that if the Harbour is to be a success, Smooth water is an absolute necessity, and that this could not be secured with an Eastern Entrance, through which heavy rollers find free admission in bad weather, rendering unsafe structures within the harbour which may be erected for the landing and shipping operations of the port- They accordingly adhered to their former resolution in favour of a North-East Entrance and gave the preference to plan No. III which had been approved by the London Committee.- The additional cost of this they Estimated to be Rs 27.70.103 or Rs 30.08.363 according as the overlap of the pier would be 600 or 800 feet respectively.—

These conclusions were laid before the Secretary of State for final decision, and meanwhile the Harbour Trust Board were called on for an Expression of their views as to the best means of carrying out the proposed plan and for a detailed Estimate of the cost — On further inquiry the Board found that the carrying out of plan No. III presented great practical difficulties. They therefore resolved, on Engineering grounds, to adopt a form of Entrance based on plan No. IV of the London Committee or plan A put forward by Mr. Parkes, and to carry out the work in accordance with Mr Parkes suggestions; that is to say, they proposed as a first step, virtually to restore the harbour to the state it was in previous to the Storm of November 1881 with an Eastern Entrance. Should it then be found that the Eastern Entrance does not give sufficiently smooth water, the North East Entrance can be gradually substituted without serious Engineering difficulties,

and during the period of alteration from the Eastern to the North East Entrance, the usefulness of the harbour will be in no way impaired. Plan No. III was originally preferred on nautical grounds, and as no Exception on such grounds could be taken to the new plan — No. IV A — while the arguments in favour of its adoption on Engineering grounds were very strong, the proposal was forwarded to the Secretary of State with a request that sanction might be given to the preliminary step of restoring the harbour [illegible] with an Eastern Entrance. Sanction to this proposal was received and communicated to the Harbour Trust Board towards the close of the year —

In May 1888 Mr Thorowgood the Engineer to the Harbour Trust Board resigned his appointment, and was relieved by his Assistant Mr. A.L. Pogson, whose appointment as Engineer was sanctioned provisionally pending settlement of the North East Entrance to the harbour when active operations were expected to be resumed. Mr Pogson has recently been confirmed in the appointment. Intimation was received of the death in England, on the 5th February 1889, of Mr. Parkes, the designer of the works,

and of late years the Consulting Engineer for the Harbour Works to the India office in London. Mr. Parkes plate has not been filled up—

RG There was a satisfactory outturn of work on the Harbour improvements, but better progress would have been made had the ultimate design of the Harbour been settled, and authority to proceed with the North Arm received earlier in the year. Work at the North Pier was in abeyance till ~~with~~ February 1889, but since that month active operations have been going on.

At the North Pier, 494 blocks were set by Divers in 46 working days, adding a length of 299 feet to the superstructure, and making up the total length of the masonry Pier to 2525 feet from the stone end of 76-(8) thirty- low blocks were dropped into position by the large Wave breaker Crane up to the end of June, when it was decided to transfer this crane to the South Pier. The crane had to be dismantled and removed by rail, then re-erected before it could be travelled over the work it was designed for. The crane was finally completed and launched on the 17th January 1889. 2524½ tons of stone were deposited in the base and foreshore of the North Pier, and during ~~the offseasons~~ 2147 Concrete blocks were made for the superstructure and wave breaker protection These blocks represented 36,500 cubic yards of

Concrete. 6383 tons of Portland Cement ~~2947~~ from England were used. The average rate, delivered on the works, was Rs 48-1-1 per ton.

The total quantity of materials supplied from the Pallaveram Quarries was 48,585 tons, brought to Madras in 8,365 Railway wagons. There were 48,283 tons of stone for the Rubble Base and chips for Blockmaking and 302 Tons of ballast for the Beach Improvements. The Quarry lines were maintained in excellent order, and there were no derailments during the year.

At the South Pier, 656 Superstructure blocks were set in position, advancing this arm by 414 ⅔ feet, and making the total length on the 31st March 1889 3514 feet, measured ~~2~~ from the first block set in 1877.

The Wavebreaker protection was strengthened by 114 blocks being dropped into position, widening the screen to the full section of 40 feet from the superstructure, and 4037½ tons of Rubble Stone were deposited in the base and foreshore of the work—

The expenditure on the Works during the year was Rs 6.17.226, made up as follows:—

Works	Rs 5,30,224.
Establishments	72,714
Tools & plant	5,546.
	608,484
Net debits to Suspense heads	8,742
Total	Rs 617,226.

and the total expenditure from the commencement, Rs 30,33,478-5-7. against the estimate of Rs 4590.051

A scheme for Beach Improvements was drawn up and sanctioned. This consisted of a rearrangement of all Railway lines, erection of Goods sheds, and thorough repair of the Iron Pier. 230 running feet of the Old Pier were dismantled of all timber work, and in lieu an embankment was formed upon which three large corrugated Iron Goods sheds were erected. 2978½ running feet of new Railway lines were laid and 2481 running feet were taken up, partly renewed, and relaid, in accordance with the new scheme. Three large turn tables were erected, thus placing both the Madras and South Indian Railways in direct communication with the Harbour Works and the Iron Pier. Two steam cranes were also erected and placed in position on the Iron Pier, and 14 hand cranes thoroughly repaired, while twenty-seven trucks were made and repaired for use on the Pier and the Custom House.

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Madras Harbour Works

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Bangalore Water Supply - The investigations made of late years having, as mentioned in the previous report, failed to produce an efficient and economical scheme of water supply to the troops stationed in Bangalore, the Government resolved to offer a reward of Rs 1000 for the best Essay on the subject, on conditions which were duly notified in the Fort St George Gazette - A number of Essays were received in compliance with this invitation, and were carefully examined by the Chief Engineer, who awarded the prize to Mr. Standish Lee, Sanitary Engineer, Mysore -

A thorough examination of all the schemes submitted, as well as the country in the neighbourhood of Bangalore led the Chief Engineer to the conclusion that the best sources of supply are to be found in the Hebbal basin near the head of the Penna Kinnie valley, about four miles North of Bangalore (in the so called Magadi Road Basin) and near the head of the Arkavutty valley about seven miles West of Bangalore - Mr. Standish Lee's scheme provides for a supply from the latter valley - He proposes the construction of a reservoir on a stream which crosses the Magadi Road about

seven miles from the Cantonment – the stream to be dammed about a mile below the road where he finds the catchment area to be 8·84 Square miles – The country here is very different in character to that of the Hebbal basin, and the slope of the drainage is very much greater – Steep rocky mounds with deep valleys between break up the surface, and for the most part the land is waste, there being only a few small villages, with a little dry cultivation – The country, the soil of which is of a poor character, is Eminently suited for a gathering ground – The valley is deep and very narrow in parts, and there are sites where reservoirs might be formed at very reasonable outlay – There is very little Laterite to be seen at the head of the valley, but every where else the out cropping rock is igneous, the bed of the stream being rocky throughout. As regards the quantity of water available, the run off from 8·84 Square miles in the neighbourhood of Bangalore has been calculated to be 61·8 million cubic feet in the worst year of rainfall, and deducting one third for loss by evaporation, &c,

the quantity available for consumption would be 41·2 million cubic feet, or 7 gallons per head per diem for 100,000 persons – The character of the ground, however, in this valley seems to warrant the assumption that the run off would be somewhat greater, and would afford a supply of 6¼ gallons to 130,000 persons, and that one years supply could be stored without a very heavy Expenditure – The scheme roughly worked out would seem to promise a sufficient supply of as nearly pure water as any surface drainage can be for 100,000 persons at a reasonable cost, or about 6 lakhs of Rupees – the cost per 1000 gallons being less than one third of a rupee – In view of these circumstances the Govt deputed a special officer for more detailed investigation, the scope of the enquiry being extended to several other schemes which were presented – Mr. J.C. Larmine, Executive Engineer, was employed on the duty from the middle of 1888 to the end of the official year – Mr. Larmine report had not been dealt with when the year closed –

R.F.

Rec'd 23.5.89

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(4)

(Bungalow Water Supply)

(5)
(10)

2437 12

Bellary Water Supply - The want of a sufficient supply of good water for the town and cantonment of Bellary has long been felt. The present sources of supply are the Alipne tank, the Fort ditch reservoir, and various scattered wells; but the quantity obtained is inadequate, the quality, particularly from the wells and Fort ditch reservoir, is inferior and the cost of delivery excessive. The Executive Engineer Bellary has prepared a scheme during the year for the improvement of the existing sources of supply, the estimated cost of which amounts to Rs 60.000. The present annual charge for supply of water to the troops amounts to Rs 23.700 - The proposed improvements will involve an increase of Rs 6300 per annum. Final decision on the Executive Engineers proposals has been deferred pending the report of a Committee appointed to consider the incidence of the cost, and how the civil population is to be supplied if the Fort ditch reservoir is closed to them and reserved exclusively for the Military.

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R.S.

Proc EX 23.5.87 12

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Bellary Water Supply.

2430 - 13

H

Cuddapah Water Supply. The unhealthiness of the town of Cuddapah has long been manifest, and various schemes for the amelioration of the present condition of things have been brought forward – of these, a good water supply and improved drainage have been unanimously advocated – The working out of a water supply scheme was entrusted to Major (now Lt. Colonel) R. E. Drake Brockman RE. of the P.W. Dept, and his report was laid before Government in 1885 The following are the leading features of the Scheme. Certain natural springs situated about three miles South of the town, called the Boogga Springs, the supply from which is stated to be abundant and of the purest quality, were to be tapped, and their flow arrested by means of an infiltration gallery constructed in a diagonal direction across the Booggern river. The upper end of this gallery was to about on the left bank of the river just below the springs. The lower end was to be carried into the right bank

13

and communicate with a well from which the water was to be raised by mechanical appliances into a cistern at the head of a masonry conduit 8,840 feet in length, terminating in an 8 inch cast iron pipe 2150 feet in length to supply the service reservoir — The reservoir was to have a capacity of about 175.000. gallons, or three fourths of one days maximum demand of 10 gallons per head of population. The main pipe leading to the town was to be 11 inches in diameter and 7370 feet in length, and, laid at an inclination of four feet a mile, was to discharge 47 cubic feet a minute — Two Sub-mains 7 inches each in diameter connected by a breeches piece with the main, and carried to a distance of 1475 and 1365 feet respectively, were provided; the service pipes

being connected with these and the main— 2436
Provision was also made for Fountain— hydrants. On review of the project by the Chief Engineer it was considered desirable to enlarge the service reservoir sufficiently to render it capable of holding two days' supply, and its position was subsequently changed to the pumping station at the river head, the water being carried thence the whole way to the sub-mains in an iron-pipe — These changes, with other alterations, principally as regards the thickness of the pipes, (not yet however finally settled) have raised the Estimate from Rs 75.000 to Rs 106.329 —

The work is being carried out by means of a loan raised by the Municipality, and a contribution of Rs 40.000/- from Provincial funds, and is being supervised by an officer of the P. W. Department —

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Rneos
29.5.85

(10)

P
(11)

(Cuddapah Water Supply)

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2436 15

Artesian boring in the Kortalayar Valley.

The depth reached at the end of the previous year was 371 feet. Operations were continued during the present year, but were not very energetically carried on by the Contractor, who, after reaching a depth of 405 feet, stopped work. It was thereupon resolved by Government to take the opinion of the Geological Dept on the results already attained and the advisability of continuing the Experiment. The Director replied in January 1869 that from the record of the samples given, he was unable to judge accurately of the age of the different Strata passed through, but he was inclined to think that much of the lower portion did not belong to the alluvial deposits proper- that for about 190 feet the boring may have been in the Strata underlying the Cuddalore Sand Stones (Red Hills laterite, &c) and that in these there was not likely to be water Sheets of any promise - He did not recommend that the boring should be made deeper in the expectation of meeting rising water. The boring was accordingly discontinued -

R.S.

Press
5.6.87

~~2436~~
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(11)

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(B+

(Artesian Boring in
the Kotalayar Valley)

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2436/16 15-1/2

Inspection of Light Houses In ac-
-cordance with the general instructions
of the Govt. of India, the following
Light houses of this Presidency were
inspected during the year by Superior of-
-ficers of the P.W. Department, their con-
-dition noted, and requirements ordered
to be supplied:-

Hope Island (Coringa)
Vakalapudi (Coconada)
Point Divi
Pulicat
Armeghon
Tellichurry
Mangalore
Calicut
Cochin
Cannanore
Seven Pagodas
Madras
Tuticorin
Negapatam 16

The Supdg. Engr. IV circle reported that
he could not obtain the use of a steamer,
and therefore proposed to defer his inspection
of the Light houses at Muttum and Pam-
-bein. Seeing that these Light houses were
reported to be in good order last year, and
one of them, Muttum, had recently been
visited by the Port officer, Madras, the
proposal was agreed to. The Executive
Engineers

Engineers concerned being ordered to undertake the inspection as soon as practicable.

R.S. 3.VII.89

Light Rly

Rhedr 3.7.89

Administration Report

8

R.S. 6/7 Rly 6/7

W.L. 3.VII.89

21/2/19 6

(13)

Work in Estates under the Court of Wards. Under arrangements made by the Court of Wards, the P.W. Dept have taken charge of works in the estates of minors under the control of the Court. The following estates were thus dealt with during the official year:—

	Ganjam District		
		Grant	Outlay
Parlakimidi		60,270	45,707
Chinnakimidi		8,241	6,940
Jarada		4,441	3,178
Bodagada		"	2,128
Urlam		10,576	10,349
Tharakotta		"	5727
Chakapalli and Tarlapotta		"	700
Aska		17	702
Kurla			2227
Hagada & Khallikotta		10,745	6,944

Vizagapatam District.

	Grant	Outlay
Chidikada Jagannadhapuram	3,000	246

Godavari District.

Lukkavaram	3,700	1988

Salem District.

Erumapatti	938	428
Yelagiri	2,000	"

Madura District.

Ramnad	104,591	102,425

The following statement shews the grant and outlay under P.W.D. service heads, and will convey perhaps a better general idea of the nature and amount of the work carried out than an

enumeration of a long list of individual works, many of them necessarily small as compared with state works of the same class:-

	Grant	Outlay
Irrigation	64,290	90,113
Civil Buildings	101,070	62,658
Communications	25,060	20,413
Establishment	16,402	15,505

The grants were not utilised to the fullest possible extent. This was due in some measure to the difficulty experienced in carrying out work in the remote localities in which many of these estates are placed.

18

The grants of progress attracted

the notice of Government during the year - and the attention of the officers concerned was called to it. It is hoped that with the improved arrangements ~~xxxx~~ now made, better results will be recorded next year. —

Works in States under the Court of Wards

RS 9.VII-89

Rue DH 9.7.89

Ord 29/7.1

SH 12 9 VII 89

(Nos 14 & 15)

2436 10
19

Presidency P.W. Stores Colonel S.C. Clarke R.E., Executive Engineer I Grade, was posted to the Stores & Workshops in May 1888, and continued to hold these charges during the remainder of the official year - Stock taking was carried out by Col Clarke who found the articles in Store to be in agreement with the books - The opening balance at the beginning of the year was - Rs 175.496 - 12 - 7.

and the receipts were as follows:-

From London.	34.849 - 11 - 5	
P.W. Divisions.	— 71 - 7 - 6.	
Presidency Workshops.	1714 - 5 - 6	36635 - 10 - 5
Total.		212.132 - 7 - 4

The issues were.

To P.W. Divisions	Rs 29.658 - 2 - 6.	
P.W. Workshops	23.166 - 13 - 6	
Dowlaishwaram Workshops.	5592 - 0 - 2	
Civil Departments	40 - 7 - 8	
Military Dept	259 - 15 - 4	
State Railways	452 - 12 - 2	
Guaranteed Railways	2192 - 10 - 2	
Mysore State Railways	1487 - 9 - 7	
Madras Harbour Works	767 - 12 - 9	KG
Private Sales	1255 - 3 - 1	
Loss by Sale of Surplus Stores	968 - 2 - 8 —	65841 - 9 - 9

Thus leaving a closing balance of Rs 146 290 - 13 - 3.

or

or Rs 29.205 less than the opening balance at the beginning of the year—

Twenty seven Consignments of Stores were received from England, and the same number of Shipments by Steamers to the Northern ports were made—

Presidency P.W. Workshops. — The following is a Comparative Statement of the work done in the shops for the year under review as compared with the previous year.

	1888-89.	1887-88	More than 1887-88	Less than 1887-88.
Work done for P.W. Department	82174 3 7	79312 7 8	2861 9 11	" " "
Do Other Departments	31212 " 7	64241 4 10	" " "	33029 4 3
Do " Private Parties	4244 6 10	6153 8 3	" "	1909 1 5
Total	117630 11 "	149707 6 9	2861 9 11	32076 11 9

The decrease in the amount of work done for other Departments is accounted for by the fact that during the preceding year, exceptionally large orders were given by the Salt and Commissariat Departments for weighing scales and weights, and other articles.

The falling off in the amount of work done for private parties, is not to be regretted, if, as appears probable, the Iron Manufactories started by Native firms, have been more resorted to by private individuals—

The value of Machinery in the shops at the beginning of the year was Rs 107925 after deducting 4% for depreciation, and adding certain receipts amounting to Rs 4294-14-11, the balance at end of the year was Rs 107908-8-6—

Pt Storekeeper's Dept - Very little work was done in this Department - Only 12 consignments of Stores were received - 6 from London, 5 from Calcutta and 1 from Rangoon - The shipments were only 2, both to Calcutta - The reduction of work was due to the withdrawal of the Bellary and Cuddapah Nellore State Railways which were transferred to the Southern Mahratta Railway Company — Rhedds 13.7.89

R/ 13/11-89

(Nos 14 & 15)

Presidency P. W. Stores

Presidency P. W. Workshops

Port Blair Accepted Stores

I & W

This completes the articles for Part I of the Administration Report.

SAW 13/11/89

13/11/89

(No. 10 & 11)

Public Works Department.

No

21/12/89

21

Government Lithographic Press.

It was decided during the year to transfer to the Revenue Survey Department all lithographic work hitherto done by the Government Lithographic Press; the latter being abolished with effect from the end of the official year. Some of the draftsmen were retained to form a Drawing office, attached to the Chief Engineers office. The draftsmen are expected to prepare for lithography, large scale copies of all drawings which may require enlargement by the Survey Department not having the means of doing this. The saving in the Public Works Department by reduction of the establishment amounts to Rupees 570. per mensem. During the year the Press turned out works to the value of Rupees 11064. ~~which~~ the working expenses being Rupees 9909. The bulk of the work done for the Public Works Department through the agency of the Press were

utilised

utilised by many other Departments of Government.

(16)

~~A-22~~

Photo 26-6-29

R/S 26/6/29

Govt Litho: Press

24926 47

16

Type designs for bridges. - In 1886 the Secy of State was requested to arrange for the preparation in England, by competent Engineers, of complete sets of type drawings, specifications, and estimates, for iron bridges of certain specified dimensions, in view to officers not only of the P.W. Department but also of Local Boards being placed in possession of designs on the most approved pattern - The work was accordingly undertaken and the drawings were completed during the year - They consist of complete designs and details; those portions of the drawings which show the general construction of the bridges being lithographed together with the necessary specifications - It is expected that such drawings will be sufficient to enable Engineers in India to select the type of bridge most suitable for any particular requirement, and to estimate its cost - The following is a list of the drawings prepared.

	No of Type Drawings
Bridges rising by increments of 2 feet 6 inches from 5 feet to 10 feet clear span, with 9 feet 6 inches clear roadway	3
Ditto, ditto, with 14 feet 6 inches clear roadway 22	3
Bridge of 15 feet clear span, with 9 ft 6 inches clear roadway	1
Do Do 14 feet 6 inches clear roadway	1
Bridges rising by increments of 5 feet from 20 feet to 30 feet clear span, with 9 feet clear roadway	3
Do Do with 14 feet clear roadway	3
	14

	No of Type Drawings
	14
Bridges rising by increments of 10 feet from 40 feet to 80 feet Span centres bearings, with 14 feet clear roadway	6
Bridges rising by increments of 19 feet from 95 feet to 152 feet Span centres bearings, with 14 feet clear roadway	4
Total No of Type drawings -	23

R.B.

(17)

Rivers
5-6-84

(Type designs for bridges)

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24/6
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Scrutiny of Local Fund Estimates by the P.W. Dept.

It was decided, shortly after the transfer to Local Boards of the Execution of Local Fund Works, that the plans and estimates of the more important Works should be scrutinised by Superior officers of the P.W. Department - The estimates of all new Works costing Rs 2500 and upwards, and of all repairs costing upwards of Rs 10.000/, as well as of such other works as might require special professional examination, were to be submitted to the Chief Engineer or Supdg Engineer - For professional Services thus rendered, Local Boards were charged a yearly contribution of Rs 21.250 which was expended in the entertainment of subordinate Establishments in the P.W. offices performing the work - The contribution was subsequently fixed at 2½ per cent on the value of the Estimates Scrutinised, and repair Estimates were excluded from professional checks by the P.W. Dept - The rules given below have now been brought into force.

The 2½ per cent shall be struck as follows: -

23

(a) Original Estimates, or those Examined for the first time on the amount of the Estimates

as submitted to the Supty Engineer

(b) Revised Estimates There shall be no fresh charge when the alteration is due to change of quantities or rates, and not of design - In other cases the full percentage shall be charged on the amount of items altered, as appearing in the revised Estimate submitted to the Supty Engineer

(c) No charge for scrutiny of estimates is to be made when Local Funds pay the ordinary percentage for Establishment, &c, for Works Executed by the P. W. Department.

R.S.

Rules
8th 6. 85

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(30)
Local Fund Estimates

24.26
24

Dear

Please see Mr's pencil instruction in the margin of the accy. proof of the Admn Report for 1888-89. It is proposed to insert the following para at the end of the para relating to Potenpai - Noorpur Road, -

"This road, from May 1886 to November 1888 was under the charge of Mr W. Knowles, Asst. Engr, a young officer who showed the greatest devotion to his work under trying circumstances. Notwithstanding frequent severe attacks of fever, he remained at his post throughout, and on several occasions he was left without any assistance, every

24

one

one of his subordinates having been incapacitated by fever. He died at Koraput on the 25th Novr 1888, after two days illness, brought on by hard work & exposure. The following order of Govt was passed on the occasion:—

"His Excy the Governor in Council has learnt with much regret of the death of Mr William Knowles, Asst. Engr 1st grade, who was a most hard working and promising young officer - His death is a great loss to the service."

If approved, the above will be inserted in the prep, & a clean proof will be submitted to W.

Cls
19.8.89

Answer returns
proof sent
to the C for check
& report progress.
CRE
19.8.89

C Ptn 24/26/9

A final proof of the Admn Report for 1888-89 is submitted for approval by W.

The corrections noted in the rough proof have been carried out, & all figures have been checked by C -

In the rough proof W noted that a notice of Mr Knowles' work & death should be found a place in the para showing progress on the Potteypi-Koraput Road - My object in sending up this final proof is chiefly to obtain his approval to the matter I have inserted in para 248, page 26, about Mr Knowles. If W. approves my rough draft before I send it to press 25

I have retained a second copy of

one of his subordinates having been incapacitated by fever. He died at Coimbatore on the 25th Novr 1888, after two days illness, brought on by hard work & exposure. The following order of Govt was passed on the occasion:—

"His Excy the Governor in Council has learnt with much regret of the death of Mr William Knowles, Asst. Engr 1st grade, who was a most hard working and promising young Officer. His death is a great loss to the service."

If approved, the above will be inserted in the proof, & a clean proof will be submitted to W.

CS
19.8.89

Awaiting return of proof sent to the C for orders.

The final proof here, with the exception of one more page for letter press is all correct.

CS
17-8-89

Submitted for approval.

RA
28.VIII.89

DW

Pl. Comml. Asst. Auditor

21/26/16

This is the final proof of the Admn Report for 1888-89: it is now ready to strike off. Hitherto we have not yet got even proofs of the maps from the Survey Office to work

I have sent one copy of the clean proof for his final approval: it will probably be ready before the end of the week.

The Report must reach the Public Dept by 15th Sept: it will take quite that time to strike off & bind the copies.

The question might perhaps be submitted to W whether the Report might not be issued this year without any maps DW

If issued subsequently as a separate work, they will not be found use in illustrating the Report. CS
29/7/89

(will follow when inform is complete)

Workshops. ——do——

loss of the North East Monsoon in Decr/88.

IV.

The Despatch marks the point where the Provincial and Local Estabts. are dealt with in the Publication of the report. I think the Despatch may be omitted this year.

I also think that of the Publication will expedite matters, the report should be of use if any one else writes it. Then report completely. Mr Fuller's Estabt. has been ready for some time. It will take some time. I get Mr Ward's Estabt. ready, & Mr Clarke his Estabt. by being present.

The report should be very concise. Mr Clarke's Estabt. I think a note better. Effect of heavy rains on the Estabt. Buildings.

29-3-88.

List of "Articles" for Chapter I of the Administration Report.

24th

1. General Remarks.
2. Grants & Expenditure (to be supplied at Madras on Cº figures becoming available)
3. Amalgamation of Provincial and Local Estabtts for Public Works.
4. Accounts Branch.
5. Employment of Pioneer troops.
6. Famine Relief Works
7. Madras Harbour Works.
8. Bangalore Water Supply.
9. Bellary Water Supply.
10. Cuddapah Water Supply.
11. Artesian boring.
12. Light Houses - (will follow when information is complete)
13. Wards' Estates (will follow when inform: is complete)
14. Presidency Workshops. ——do——

27

after the close of the North East Monsoon in Decr/88.

15. Residency Stores (will follow when information is complete)
16. Lithographic Press
17. Type designs for Bridges
18. Local Fund Estimate
19. Service Books (to be entered at Madras from 5Es Ad: Reports)

SAW

I herewith send you the articles as shown overleaf. They had better be put into type at once - and, when complete, a Proof can be sent to Ooty for approval. The numbers indicate the order in which the articles shall appear.

R/S

CAW
26.VI.

Administration Report (General Buildings and Roads Branch)-

First Circle-

24/6/28

1 General Remarks-

The grants and outlay under various heads will be found detailed in parts I & II

In the Ganjam Division-

The chief work was the Gopalpore screw pile pier which was completed and handed over to the Marine Department in April 1888.

The old Ganjam Division was reconstituted from 1st April 1888 - A special Sub Division has been formed since January 1889 for the execution of Ganjam Gopalpore Canal works (Famine relief works)-

In the Vizagapatam Dn

The chief work was the construction of the Potinghi Koraput Road - Estimate Rs 2,81,940- The progress on this work during the year was retarded partly by the unhealthiness of the locality causing difficulty in procuring labor and also to frequent transfers of Upper Subordinates and partly by the death of Lt Knowels the Assistant Engineer in charge in Novr 1888 & of temporary Supervisor Lt Donovan in February 1889.

JB

The new Potinghi Ghat Road Estr Rs 4,56,581- owing to the unhealthiness of the locality and the difficulty in procuring labor, the construction of the 70 ft span girder bridge was only commenced after the close of the North East Monsoon in Decr 88.

The Survey of the Road from Koraput to the frontier of Central Provinces has been completed & plotted-

Service books. The orders with respect to the due and correct maintenance of the Service Books of Public Servants have been and are being attended to by the Executive Engineers in charge of Divisions & the Supt. Engineer's office - 676 have been verified out of the total number of 776 books-

a

II Progress of works.

1 Imperial Military. 24/2/29

Ganjam Division -

Constructing a regimental School for the Native Infantry at Berhampore - Revised Estimate Rs 1,680-0-0

This work was not completed owing to insufficient provision in the original estimate for wood work for which a revised Estimate had to be prepared & sanctioned before any work could be carried out-

The expenditure under the Minor original works & Repairs was Rs 1653 & 1603 respectively- The number of original works were 4 of which 3 were completed and the Regimental School house at Berhampore was in progress.

The number of repair works in progress during the year were 18, all of which were completed- The principal works are as noted below:-

(1)	Special repairs to Regimental Barracks at Berhampore	Rs 180-0-0
(2)	Remetalling the Roads in the Regimental line at Berhampore	350-0-0
(3)	Do Do in the compound of Military Hospital at Berhampore	130-0-0
(4)	Annual Repairs to the Military buildings of the 5th Regiment Mil. N. I at Do	182-0-0
(5)	Rent of hired buildings for the Asst. Apothecaries of different stations	425-0-0

Demarcating lands of Cholera Camp for Military Cantonment - Fencing existing bund at the present site } Rs 90-0-0
Supplying 4 Kitchen troughs to 5th Regt Mil. N. I. Berhampore } 50-0-0

Vizagapatam Division -

The expenditure on Minor original works was Rs 425 and on Repairs Rs 3,548 against an allotment of Rs 465 and Rs 3,500 respectively- The Construction of Butts and making 16 Kit boxes for the 28th Regiment Mil. N. I. at Vizianagram and the repairs to Road drains and Military

buildings of E. I. V Company at Viza-
-gapatam were completed.

Godavari Eastern Division.

Repairs to the Military buildings at Sa-
-mulcottah were carried out at an outlay of Rs. 4070 against a grant of Rs. 2700. Ad-
-ditional funds were applied for to cover the excess outlay (Rs. 1370) but were not sanc-
-tioned by the Military Department from the funds placed at their disposal.

II Imperial Civil Wrks.

Vizagapatam Division.

Repairs were executed to the Post offices at Vizagapatam and Bimlipatam and to the Telegraph Office building at Vizagapatam at a cost of Rs. ×500 and ⊛256

× Cost offices
⊛ Telegraph Office

Ganjam Division.

The special Repairs to Post Office at Gopal-
-pore were carried out at a cost of Rs. 27.

Godavari Eastern Division.

The Post offices at Samulcotta, Bhadra-
-chellam and Kunavaram were repaired at a cost of Rs. 480 and the Telegraph in buildings at Cocanada and Rajahmundry at a cost of Rs. 384.

III Provincial.

Civil Buildings.

Ganjam Division.

Additions & alterations to Police Supt's Office at Chatrapur Estimate Rs. 4800-
Expenditure upto end of March/89 was Rs. 3,065 against an allot of Rs. 4,100--

Constructing Police Hospital at Chi-
-cacole Estimate Rs. 1480- Expenditure upto end of March 1889 was Rs. ×910- This work was commenced in the middle of February/89.

× against an allot of Rs. 1348-

Repairs to Collector's Bungalow at Chatrapur Estimate Rs. 3,372 and expenditure to end of March 1889 Rs. 2027- The repairs to this building were stopped as it was afterwards ×proposed to abandon this building and to construct a new one- The repairs to the Minor ⊛works as per margin were also executed during the year-

× See 20 Rc. 886 W. dt 25-3-89.

	Estts
Repairs to Protestant Church at Chicacole	450
—Do— to General & Collector's office at Russelkonda	500
Alterations & improvements to treasury rooms at Chatrapur	355

⊛ Vizagapatam Division.

Police Station-house at Korapat

This is an incomplete work of the previous year- The work remaining to be done was carried out during the year and the building was completed at a cost of Rs. 4,251 against the revised estimate Rs. 4,510 and handed over to the Police Department-

Constructing 34 Reserve Police huts at Korapat

Estimate Rs. 14,800- Expenditure Rs. 7229 against an allotment of Rs. 6940- The su-
-perstructure of two of the four blocks have been completed and all wood work for doors and windows per these blocks was purchased-

Additional accommodation to the Rajur treasury at Vizagapatam-

This is an incomplete work of the previous year & completed at a cost of Rs. 9711 against the estimat

Rs 9,890 and handed over to the Revenue Dept.

Constructing an Hospital at Gunupuram.

Estimate Rs. 4,020- Expenditure to end of the year Rs. 3284- expenditure during the year was Rs 1239 against the grant of Rs. 1480- Superstructure has been completed and roofing in progress-

Constructing an Office for the Supt. of Police at Koraput-

Estimate Rs. 12,030- Expenditure was Rs. 7,320 against an allotment of Rs. 7,500- The walls of the building have been raised to a height of 11 feet and roof timber, doors & windows purchased-

Constructing a 3rd class Tahsildar's office at Salur

Estimate Rs. 10,230- Expenditure during the year was Rs. 3470 against the grant of Rs. 3,500- This work is being carried out on contract system- The superstructure of the Main building is nearly complete, the compound wall has been built and the out houses are in progress-

New Police Hospital with Subsidiary buildings at Koraput Estimate Rs. 10,540 sanctioned in G.O. No. 3881 W. d/ 10-12-88- The expenditure during the year was Rs. 613 against the grant of Rs. 500- Materials are being collected for the work-

Constructing the Deputy Tahsildars Office & Sabjail at Potinghi-

Estimate Rs. 11,700- The expenditure to end of this year was Rs. 4,241 & during the year was

Rs. 925 against an allotment of Rs. 1250- The old building was dismantled- Foundations excavated & concrete partly laid; Doors & windows purchased- 243

Reconstructing the Compound Wall of the District Jail at Vizagapatam

Estimate Rs. 4,290- Expenditure during the year was Rs 823 against an allotment of Rs 1,250-

Sub-Registrars Office at Parvatipur-

Revised Estimate Rs. 2,145- The outlay during the year was Rs. 347 against the grant of Rs. 750 The Superstructure of the building has been almost completed-

The Warders Lines of the District Jail and Police Supts. Office at Vizagapatam & 7 other Minor buildings were repaired at a cost of Rs. 2989 against the lump sum grant of Rs. 3,000-

Godavari Eastern Division-

A Lightning Conductor was provided to the Central tower of Rajahmundry Central Jail at a cost of Rs. 335 against the Estimate Rs. 360

Dispensary at Bhadrachellam- Out houses and a well were completed during the year and the buildings were handed over to the Medical Department in November 1888 The total cost of the building was Rs. 4001 against the estimate Rs. 4,246- 81

Residence for the Ex Engineer at Dowlaishwaram- The servants Quarters and cook house were completed during the year The total cost of the building amounted to

Rs 17349 against the estimate Rs 17,012-

(4.) Bungalow purchased from Lt Col Drake-Brockman Rt Dowlaishwaram - Necessary improvements were carried out at a cost of Rs 538 to convert it into a residence for an Assistant Engineer-

7. Repairs to Collector's Cutcherry at Cocanada were carried out during the year at a cost of Rs 2,562 against the estimate Rs 3,300-

6 Repairs to the Church at Rajahmundry - The corrugated iron required for repairs to this building was obtained from Madras in March 1889 & the repairs were put in hand. Repairs to P.W. Buildings were carried out during the year at Dowlaishwaram.

Godavari Central Division-

1 Sub Magistrates Office at Rajole - Estimate Rs 2750 and expenditure Rs 3077-

2 Conversion of the Store shed at Ralli into Divisional Office - Estimate Rs 3040- This work was completed at a cost of Rs 3738 and the building was transfered to Provincial vide P.O No 3253 W. d/ 29-11-87-

3 Repairs were carried out during the year to the Sub Magistrates Cutchery at Kottapetta & the old Division Office at Gunnavaram at a cost of Rs 166 against an allotment of Rs 300.

Godavari Western Division-

The following works were completed or in progress during the year.

	Estimate Rs	Outlay Rs
Constructing 1st class Taluq cutchery at Tanuku completed	23,580	23,347
Do Do at Bhimavaram completed	25,670	24,615

* Rs 698 was the excess outlay of which Rs 128 were sanctioned in P.O No 3832 of 3-7-889 the difference Rs 161 was due to high rates paid for doors & windows-

	Estimate	Outlay
Sub Registrars office Tanuku completed except fixing iron bars to the cracked portions	3090	3075
-Do- at Bhimavaram materials being collected	3420	535
-Do- at Narsapur Tiling in progress	3430	762
-Do- at Ellore roofing nearly completed	3380	3398

Necessary repairs were executed to the old Hospital at Ellore —

IV Provincial Communications.

Vizagapatam Division-

X Nuva Potinghi Ghat Road Estimate Rs 456581-

Outlay up to end of current year was Rs 454060- Expenditure during the year was Rs 5067 against the revised grant Rs 5000- The abutments of the 70 ft span iron girder bridge over the Sunki river have been carried upto girder plat form level and iron work has been conveyed to site & teak planking purchased-

2 Road from Potinghi to Koraput- Est Rs 281940-

Outlay upto end of current year was Rs 139956- The expenditure during the year was Rs 3744-38 against an allotment of Rs 40,000- Earth work has been nearly completed- Excepting 7m 8f & 20f miles. The first four miles of the road have been metalled, consolidated and opened for traffic 5f, 6f, 13f to 19f miles metalling for the most part completed but not consolidated. The abutments of the bridge over Potinghi & Nulla have been raised to 4 ft in height- 12 drainage culverts and 2 irrigation culverts were built- The

Inspection house at Dholiam is under under construction and walls raised to height of 10 ft.

x Surveying Road from Koraput to frontier of Central Provinces - Es Rs 7,545 - Outlay to end of current year was Rs 7208 - The expenditure during the year was 2829 against an allotment of Rs 3,000 and work completed.

4. The following Roads were maintained at a cost of Rs 10,353 against an allotment of Rs 10,500

1 Road from Stikivalasa to Potinghi -
2 Agency fair weather road from Potinghi to Koraput -

Godavari Eastern Dr

The navigation works at Dumagudem were maintained at a cost of Rs 7191 during the year - Protective works at head of channel leading from river to Dumagudem Lock were carried out at a cost of Rs 3,024 - The stone bund across ruined Scouring sluices was built at a cost of Rs 1408 - The canal was closed for repairs from 15th March to 15th June 1888 - 685 boats passed through the Canal during the year against 445 in the previous year

Provincial -
Miscellaneous Public Imprvts

Godavari Eastern Dr

The channel from Boat Office to the new loading was demarcated and the roads in the Sappers cantonment Dowlaishwaram were repaired during the year at a cost of Rs 242 -

VI Local Incorporated -
Rushikulya Division -

The Aska and Surada road was maintained at a cost of Rs 472 - 94 3b. 33

Godavari Eastern Dr

Ordinary repairs were carried out to Kovvur Manjair junction canal at a cost of Rs 3,562 during the year -

2. The Ferry steamer for the Godavari River was completed during the year at a cost of Rs 5968 and handed over to the Revenue Departt on the 15th March 1889

Godavari Central Dr

The construction of an Iron Girder Bridge over Gunnaram Canal at 33 miles near Mattam estimate Rs 5000 was put in hand and Rs 3137 spent during the year.

2. A sum of Rs 1000 was adjusted during the year on account of contributions from Local Funds towards the construction of the following works:

1 Widening road way on sluice to Kadali channel -
2 Dr Dr on sluice to Manapalli chl -
3 Dr Dr over Vepachetta drain Under Tunnel.
4 Dr Dr over Pedapudi channel sluice

VII Local Excluded -
Vizagapatam Division -

Constructing a detached cook house for the Asst Supt house at Santapalli Es Rs 925. An outlay of Rs 104 was incurred during the year 33

2 Repairs to the buildings attached to the

Light house at Santapalli Estimate Rs 162. outlay in previous year Rs 60 and during the year Rs 153 against an allotment of Rs 162.

Godavari Eastern Dn

The Quarters for the lascars at Vakalapudi Light house were completed except a small portion of tiling. The outlay during the year was Rs 2,231 against an allotment of Rs 2,230.

Ganjam Division.

1 Constructing an iron pier at Gopalpur Estimate Rs 308200. Expenditure during the year was Rs 8471 against a grant of Rs 8000. This work was completed in July 1888 at a cost of Rs 283408 and handed over to the Marine Dept.

2 Improvements to Light house at Calingapatam Estimate Rs 1500. Expenditure up to end of this year was Rs 1273. This work was commenced in January 1889 but not completed as special labor had to be got.

3 The emergent repairs to Gopalpur Screw pile pier, (replacing tie rods straps, bolts & screws which have fallen into the sea) were carried out during the year.

The Changes in the Staff.

In the Ganjam Dn Mr S. Subbarayachariar Ex Engr 3rd Grade held charge till 26-11-88 when he gave over charge to Sub Engr S. Venkataramanayya Pantulu who gave over charge on 18-12-88 to Rai Bahadur Amrita Lal Chowdry Ex Engineer 2nd Grade.

Administration Report
Proof please - Secretariat
already given as reference
to Press. H.D.B. 14/6/89

A Sub Dn called Ganjam Gopalpore canal Sub Dn was formed with head Quarters at Chatrapur vide G.O No 3986 W. d/20-12-88 Mr W. C. de Morgan held charge of this Sub Dn from 7-1-89 to 20-4-88 when he gave over charge to Mr A M. Ford Ex. Engineer 4th Grade.

In the Purshitulya Dn Mr G. D. Wybrow Ex Engr 1st Grade held charge till 8th March 1889 when he gave over charge to Mr Medlicott Ex Engr 4th Grade temporary who again gave over charge on 1-5-89 to Mr W. C de Morgan Ex Engr Mr T. W. S. Smyth assistant Engr was transferred on 24th Nov 1888 to Madura Dn. His place was filled by Mr A C. Perrin Asst Engineer.

In the Vizagapatam Dn

Mr C. J. Ussher Ex Engr has continued to hold charge during the year Mr Knowles Asst Engr of the Koraput Sub Dn died on 25-11-88 and no officer was sent in his place till 29-12-88 when Mr J. English Asst Engr assumed charge of that Sub Dn

In the Godavari Eastern Dn

Mr J. E. Paul Ex Engr 3rd Grade has continued to hold charge during the year with his two Asst Engineers Messrs S. B. Murray and M. Soan.

In the Godavari Central Dn

Mr W. C Lewis Ex Engineer 4th Grade remained in charge the whole year with R. A Srinivasa Iyengar as his Assistant.

In the Godavari Western Dn

Mr W. C. de Morgan Ex Engineer gave over charge on 26-12-88 to Mr J. S. Wilson Assistant Engineer who again gave over charge on 23-4-89 to Mr B. A Young Ex. Engineer.

F. W. V. Campbell Major R.E.
Supt Engr 1st Circle

To C.A. 40

Forwarded for portion of Administration Report

F.D.B.

SAW
There is for 14/6/89
nothing here for Chapter I.
Ordinary Statistics only
required. The Statistics
will be in Chapter II

Abstract

Statement showing the Administration Report for Part I

Supervised Works

Class of Works	Number	Length in miles	Expenditure during the year
Navigation Canals	1	173	1603
Irrigation Canals	3	44	3548
Do — Central	3	236	4010
Do — Subsidiary	474		1320
Protective Works	3	24	200
Do — Subsidiary		456	800
Drainage Works		864	1100
Total	484	1797	16601

Other Works

Class of Works	Number	Length in miles	Expenditure during the year
Navigation Canals	3	455	2100
Irrigation Canals	471	1647	9221
Protective Works	3	44	1420
Drainage Works		236	3500
Total	477	2382	16241

Grand Total

	Number	Length in miles	Expenditure during the year
Navigation Canals	4	628	3703
Irrigation Canals	474	1691	12769
Protective Works	3	68	1620
Drainage Works		1100	4600
Total	481	3487	32842

Appendix 35

Part II.

Statement showing outlay under Grants under Departmental Heads.

Head

Irrigation

Ordinary outlay

Original works.

| Name of Division | Unclassified | | | | Classified | | | |

Provincial					
Civil Original Building Works.		Ganjam Division	—	3979	
		Vizagapatam do	—	22640	
		Godavari Eastern do	—	4365	
		— do — Central do	—	3875	
		— do — Western do	—	9396	
					44255
	Repairs.	Ganjam Division	—	2178	
		Vizagapatam do	—	2987	
		Godavari Eastern do	—	5735	
		— do — Central do	—	166	
		— do — Western	—	466	
		Rushikulya Division		—	
					11534
Communication Works.		Ganjam Division	—	—	
		Vizagapatam do	—	45413	
		Godavari Eastern do	—	—	
		— do — Central do	—	—	
		— do — Western do	—	—	
		Rushikulya Division		—	
					45413
	Repairs.	Ganjam Division	—	—	
		Vizagapatam do	—	10353	
		Godavari Eastern do	—	13756.	
		— do — Central do	—		
		— do — Western do	—		
		Rushikulya Division	—		24109
Mis Public Improvements.		Ganjam Division	—		
		Vizagapatam do	—		
		Godavari Eastern do	—	242	242
		Total Provincial			125533

		Ganjam Division			
	Tools & Plant	Vizagapatam do	—	715	
		Godavari Eastern do	—		715
Incorporated Local.	Communication original work.	Godavari Eastern Division			
		— do — Central do	—	3137	3137
	Repairs.	Ganjam Division	—	—	
		Rushikulya Division	—	472	472
Other Incorporated Local original Civil Building works.	Communication	Godavari Eastern	—	474	474
	Repairs	Godavari Eastern	—	3562	3562
	Tools & Plant	— do —	—	59700	59700
		Ganjam Division	—		
	original work.	Vizagapatam do	—	104	
		Eastern Division	—	2231	2335
	Repairs.	Eastern Division	—	-65	
		Vizagapatam do	—	153	88
Mis-Public Improvements		Eastern Division	—		
	original work	Vizagapatam do	—		
		Ganjam	—	9644	9644
	Repairs	Eastern Division	—		
		Vizagapatam do	—	240	(37)
		Ganjam — do	—	728	968
				Grand Total	219123.

Statement Showing outlay Compared with grants under departmental & Service heads.

Sub head	Imperial											
	Military					Other Services.						
	original Budget grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less	original Budget grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less		
Original works: Military	2470	2078		392				474	3	-		
Original works: Civil Buildings	-	-	-	-	-	-	-	-	-	-		
Original works: Communications												
Original works: Mis. P. Improvements	-	-	-	-	-	-	.	.	.	.		
Original works: Total	2470	2078		392				474	3			
Repairs: Military												
Repairs: Civil Buildings	7620	9221					2100	1647				
Repairs: Communications	-	-	-	-	-	-	-	-				
Repairs: Mis. P. Improvements	-	-	-	-	-	-	-	-				
Repairs: Total	7620	9221					2100	1647				
Grand Total	10090	11299		392			2100	1173	3			

First — Ford

Statement Showing outlay Compared with grant under Departmental and Service heads.

	Provincial										Local.									
	General					Navigation					Incorporated					Excluded.				
	original Budget grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less	original Budget grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less	original Budget grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less	original grant.	Modified grant.	outlay	outlay Compared with Modified grant. More	outlay Compared with Modified grant. Less
Original Works: Civil Buildings	51984	44255		7729																
Original Works: Communications	48500	45413		3087							3203	3611	408			12555	11979	1		577
Original Works: Mis. P. Improvements																				
Original Works: Total	100484	89668		10816							3203	3611	408			12555	11979	1		577
Repairs: Civil Buildings	11492	11534	42																	
Repairs: Communications	24000	24109	109								3950	4034	84			230	65			295
Repairs: Mis. P. Improvements	200	242	42													842	1121	279		
Repairs: Total	35692	35885	193	-							3950	4034	84			1072	1056	279		295
Grand Total	136176	125553	193	10816							7153	7645	492			13627	13035	280		872

No. 141 G.L.

FROM,

Major D. McNeil Campbell R.E

SUPERINTENDING ENGINEER 24/26/34

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

Encls 1.

PUBLIC WORKS DEPARTMENT.

DOWLAISHWERAM, 6 June 1889

SIR,

I have the honor to submit herewith the Administration report of General Branch "Buildings & roads" for the year 1888-89.

I have the honor to be

Sir

Your most obedient servant

D McN Campbell Major R.E

Supg Engr 1st circle

39

JK

Statement showing the out turn and cost of the Imperial & Provincial Roads under each Executive Engineer's Division during the year 1888-89.

Name of Road	Length in miles	Average breadth in feet	Area in square feet	Quantity of Bricks	Quantity of Kunkur	Quantity of Stone	Quantity of Gravel	Quantity of Earth	Quantity of Asphalt	Quantity of Coal Tar	Quantity of Oil	Cost
Imperial												
Gunjam Russelkonda	1653	1603	3	24	-	-	-	-	-	-	-	39/15/-
Vizagapatam do	4285	3548		756	-	6806	-	-	-	-	-	68061
Godavari Ist Div	-	1010-4/4		864	-	4365	-	-	-	-	-	43651
do Central	-	-		-	-	-	-	-	-	-	-	38/5/-
do Western	-	-		-	-	-	-	-	-	-	-	9396
Kistna do	-	-		-	-	-	-	-	-	-	-	-
Nellore do	-	-		-	-	-	-	-	-	-	-	-
Total	2078	9221-4/4		1647	-	-	-	-	-	-	-	99 6861
Provincial												
Nellore with Branch Roads	1034	1177		1056	15706	35395	3611	9644	728	1915	-	
Kistna do do	1063	1313		342	19733	4/4	35622	231	1/5	35000	-	
Godavari do do	-	166		3137	-	-	-	-	-	7170	-	
do Central	-	-		-	-	-	-	-	-	9862	-	
do Western	-	-		-	-	-	-	472	-	-	-	
Vizagapatam do	-	-		-	-	-	-	-	-	-	-	
Gunjam Russelkonda	-	104		153	5639	-	-	-	-	-	-	
Total	2097	1479		1056	15706	35395	3611	10347	728	1915	-	

2436
80

4°

FROM, PWC No 5332
Major D Cuchet Campbell RE.
SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 6th
DESPATCHED 8th June 1889
RECEIVED 12

NO. 141 C.

ENCLOSURES /

SUBJECT.

I Circle

Administration Report
General Branch for
1888-89. Submits the.

General Remarks to be
sent to C.a.W. and
Progress of works
portion sent to Secs-

F.D.B.
14/6/89

D

C. Nos. 5445, 5530,
5608, 5634 & 5635.

C.a.W. 24/6/89

After you have
abstracted the
information you
require for Part I
of the Administ.
Report, please return
the correcto to
S.a.W. for Part II
vide page 29 of
last year's report.

F.D.B.
21/6/89.

5608 is the only
reply to the urgent
memo: recently
issued. The others
have come in the
ordinary course
Replies from E.E.
I & VI. to 3709. C.S
14/6/9 will be sent
upon receipt.

F.D.B.
21/6/9.

No 1074.

Administration Report of the P.W. Department General Buildings and Roads Branch in the Vizagapatam Division for the year 1888-89.

Estate Works.

Chidikada and Jagannathapuram Estate.

An estimate amounting to Rs. 13,300 was sanctioned for constructing an Anicut across Bodderu river and head sluice at the head of Bodderu Channel. The expenditure on the work was Rs 246 against an allotment of Rs 2000. This work was let out on contract in May/88 but the contractor having failed to make fair progress with the collection of materials, it was found necessary to cancel the contract in December/88. No payments were made to the contractor as he failed to bring the materials to the site of work. A fresh contract was entered

mts in February 89.

J. W. Campbell Major R.E.
Superintending Engineer
1st Circle

10 June 1889

JK

4-2-B

2-10

Administration report
of the Lakhi
works for the

The original
this head was Rs 2,500 and the
modified grant Rs 2700.
The total expenditure a
the grant at end of year was
Rs. 1988. The short outlay
is partly due to piece work
having failed to complete
the repairs of Kanjoor
bank at Gunaraya
and Rs. 200 to the late
ation of funds in the year for
the work Provided for retaining
wall in rear of Nam across
Gorra Calava at Gunaraya
Gaon.

Progress of Works.

The following works
plete & or in progr

Expenditure during the year	Expenditure since the grant	Re.
15 89.	10 89.	

mts in February 89.

D. W. Campbell

10 June 1889 Superin

JK

FROM, Major D. McNeil Campbell

THE SUPERINTENDING ENGI

FIRST CIR

T 2436 (7)

424 THE CHIEF ENGINEER

PUBLIC WORKS DEPARTME

DATED 10th
DESPATCHED 12th } June 18
RECEIVED

No. 1077,

ENCLOSURES.

SUBJECT.

Administration Report.
Chidambaram and Jaggannaickpuram States for 1888-89.
Submits -

210

2436
1443

Administration Report
of the Lakk
works for the

The original g
this head was Rs 2,500 and the
modified grant Rs 2700 -
The total expenditure against
the grant at end of year was
Rs. 1988 - The short outlay
is partly due to piece work
having failed to complete
the repairs of Kanjoor
tank at Swaraya
and Rs. 200 to the late a
ation of funds in the year for
the work Provision for retaining
wall in rear of Ram across
Yema Calava at Swaraya
garam -

Progress of Works.

The following works
pleted or in progr

Providing retaining wall & repg. drain around Tank at Tinnevelly	200	"	"	W. Dept. commenced on receipt of funds.
Repg. Tank at Tirupatty	800	40	801.	Completed.
Repg. Tank at Ammapalam	800	519	580	—— Do. ——
—Do— Tank at Tinnevelly	2,000	1198	1190	Earth Work Assembly Completed.
Emergent Repairs to Damaged across Vyna Calava called Akkumma Calva	30	26	26	Completed.
Repg. Catchm. built across Tank Kalimmud	1530	103	1540.	—— Do. ——
Repg. a house called Bydayyas	400	90	428	—— Do. ——
		193	193	C C
	2700	1988		
		193	193	
		2181	1795	as.

B. H. Young
4/6
Executive Engineer

Submitted for information
Chief Engineer

Lieut. Colonel Major RE
Supdg Engineer Circle

10 January 1849

24-26
44

24-26
44

FROM,

Major D Beckett Campbell R.E.

~~THE~~ SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 10th June 1889
DESPATCHED 15th
RECEIVED 21st

~~NO.~~

~~ENCLOSURES.~~

SUBJECT.

Administrative Report of Lakkawaram Estate works for the year 1888-89

the Public Works Department

for the year

1888-89

— Ganjam Division —

— Ward's Estates —

* 1 Parlakimidi
* 2. Chinnakimidi
* 3 Jeerda
* 4. Bodagada
* 5 Urlam
* 6. Chandkotta
* 7 Chakipalli & Tarlapatta
* 8 Atka
* 9 Kurla
* 10 Atagada & Khallikotta

1 The number of Estates attached to the Division at the begining of the year under review were 6, and 4 Estates were added to the Division during the Course of the year. Thus the number of Estates attached to the Division at the end of the year were 10.

2 The original grant for the Estate works was 179,211 Rs which was modified in the Course of the year to Rs 96,383 The Expenditure was Rs 83603 or 12,780 Rs short of the revised outlay. — The outlay compared with the grant

than the original grant; the difference was considered as sufficient Estimates have not been received from the Parlakime di Sub⊙ wise

Irrigation Original Works.

Number of Works in progress were 12 of which one work. "Constructing a Sluice ... ... & Sedda Cheruve of Podange " Rs 289 " was completed at a cost of Rs 283

Of the remaining 11 in progress the following are important works Costing Rs 1000 and above.

(1) Reconstruction of Rangeagaran East high level Channel. Estimate Rs 6830 Reg: No 675 of 86-87. Expenditure upto date Rs 3088. During the year Rs 736.

(2) Improvements to Manipaay = gedda Calingulah Estimate Rs. 1580. Reg: No 563 of 1886-87

Expenditure

During the year 1333

Irrigation Repairs

Number of Works in progress during the year were 23. of which 3 were Completed as follows.

(1) Closing breaches in Kiruthan = agaran high level Channel Est Rs 420 Reg: No 534 of 87-88. Expenditure Rs 416.

(2) Closing breaches in Gaza = patiagaram tank bund Est. Rs 904 Reg 319 of 88/89. Ex = penditure Rs 904.

(3) Repairs to Aqueduct across Kiruthasagaram high level Channel Est Rs 65 Reg: No 684 87-88 Expenditure Rs 60.

Of the remaining 20 works in progress the following are important. Costing Rs 500 and above.

(1) Clearing Silt in Batticaloa Channel Est Rs 2780 Reg: No 415 of 88/89 Expenditure upto date

Rupees

X

Names of Estates	Original grant	Revised grant	Outlay	Differences: Excess	Differences: Saving
Parlakimidi	92270	60270	45707	-	14563
Chemmakimidi	18,470	8,241	6,940	-	1301
Jarada	13,530	4,441	2,179	-	2262
Bodagada	-	-	2,128	2,128	-
Urlam	24,231	10,576	10,349	-	167
Kharakotta	-	-	5,727	5,727	-
Chatrapalli & Parlapatta	-	-	700	700	-
Aska	-	-	702	702	-
Kurla	-	-	2,227	2227	-
Atagada & Khallikote	22,317	12,916	6,944	-	5971
Total	179,2 11	96,388	83,603	9,480	24,264 / 12780

Parlakimidi Estate

This Estate forms the Parlakimidi Sub-Division and is in charge of a Sub-Engineer

The following officers were in charge of this Estate Works

from 1st April to 24th October 1888.

Mr. A. M. Bruniéppa Modaliar from 25th October 1888

The following Statement Exhibits outlay compared with the grant for 1888-89.

Service Head		Original grant	Revised grant	Outlay	Differences: Excess	Differences: Saving
Irrigation	Original Works	35,000	6,730	3429	-	1571
	Repairs	6,500	8000	6741	-	2859
Civil Buildings	Original Works	8000	12,000	8061	-	3939
	Repairs	5000	4000	2823	-	1177
Communications	Original Works	19,000	10,000	8846	-	1154
	Repairs	12,000	13,000	8883	-	1117
			67000	37183		
Establishment		17,250	11270	8524	-	2746
Total		92,250	60,270	45,707	-	14,563

Apd

-jetdia Channel Est Rs 1220
Rpt No 38 of 88/89 Expenditure
up to date Rs 230. During the
Year Rs 230 —

(3) Repairs to Lakshmipuram
Pedda Tank Est Rs 860. Rpt
No 545 of 88/89 Expenditure
up to date Rs 250. During the
Year Rs 250. —

(4) Improvements to Krishnasaga-
=ram tank bund Est Rs 2450
Rpt 641 of 87-88 Expenditure up
to date Rs 574. During the Year
Rs 574 —

Building & Original Works

The number of works in progress
were 12 of which the following
4 were completed viz-

(1) Constructing a Kitchen at
Nelakantaswara Swamy's temple
at Pathapatnam Est Rs 1220/-
Expenditure Rs 1173. Rpt 87 of 86-87.

(2) Constructing a well in
the

2836/148

Expenditure Rs 215 Rpt No 79 of 88/89.

(3) Constructing semi circular
flooring and retaining wall
at drain opposite to Rayalu
Choultry Est Rs 460. Expenditure
Rs 573 Rpt No 38 of 86-87.

(4) Constructing a Bungalow
at Nelakantaswara swamy's
temple at Pathapatnam for
Tamil Zemindar Estimate
Rs 2345. Expenditure up to date
Rs 2045.

The remaining 8 in progress
are:-

(1) Constructing a Choultry
for travellers at Inokhalugam
Estimate Rs 5460. Expenditure
up to date Rs 1070. During the
Year Rs 789. Rpt No 150 of 88/89

(2) Building an Entrance
gate and Compound wall
around the new Choultry at
Parlakimidi Est 4590 — —
50
Expenditure

X

189 of 86-87.

(3) Constructing a Rest shed at Tembone Estimate Rs. 1600 Expenditure up to date Rs 1371 During the year Rs 1116. Rep. 112 86-87

(4) - ditto — do. at Yarabadowa Estimate Rs. 1600 - Expenditure up to date Rs. 776 - During the year Rs. 578.

(5) - Do - do. Rangalagarama Est. Rs. 1600. Expenditure up to date Rs. 1420 During the year Rs 1171.

(6) Ditto — Ditto - at Kottoor. Est. Rs 1600. Expenditure up to date Rs 1402. During the year Rs 768.

(7) Constructing a well in the Zemindars palace Stables Est. Rs 150. Expenditure up to date Rs 139 During the year Rs 139 Rpts 90 of 88-89.

(8) Constructing Stables for the horses of Young Zemindar at Pallakimedi Est Rs 950/-

Expenditure

Expenditure up to date Rs 949
During the year Rs 949 Rpts
1940/87-88

24/89

Buildings Repairs

Number of works in progress were 10, of which the following 3 were completed.

(1) Repairs to Rest shed at Ropalada Est Rs 147. Rpts 220 87-88

Expenditure Rs 150.

(2) Repairing Municipal Office at Pallakimedi Est Rs 157 Rpts 44 of 87-88 Expenditure Rs 157.

(3) Stitching Covers & Chandeliers in the Asthan Durbar Hall at Pallakimedi Est Rs 153 Rpts 104 of 88/89 Expenditure Rs 154.

Of the remaining 7 in progress, the following 3 are important -

(1) Repairs and alterations

2

to Mela Kanatuwara culvert
to safe Est Rs 2065 Rpts 57 of
86-87. Expenditure up to date
Rs 1945. During the year Rs 515.

(2) Repairs & Roof of
Hemmidama High School & Pavla-
-Kumbi. Est Rs 1430 Rpts 186/86-87
Expenditure up to date Rs 1377
During the year Rs 358.

(3) Repairing the Range Office
Store Rooms at Pallakumbi
Est Rs 1140 Rpts 212 of 87-88
Expenditure up to date Rs 1131
During the year Rs. 355

Communications

Original Works.

The number of Works in progress
were 14. of which the following
one work was completed.

Constructing 3 Culverts in
Rajah's garden road Est Rs 141
Expenditure Rs 128 Rpts 56 of 87/89

The following important
works were in progress.—

(1)

(1) Improving Road from Kopa-
-lada to Kumbikulanga Est Rs 8390
Rpts 129 of 87-88 Expenditure up
to date Rs 6924 during the year
Rs 2632. 7 & 385/50

(2) Improving Road from
Kumbi to Parapurana 4 to 9
miles. Est Rs 4810 Rpts 143 of 87-88
Expenditure up to date Rs 4296
During the year Rs 1867.

(3). Improving road from
Junction of Kumbi Kuchchilunga
Road at Kopalada to Gajapati-
-Kapuram Est Rs 2020 Rpts 186/87
Expenditure up to date Rs 1265
During the year Rs 683

(4) Completing Gumma Road
from 2nd mile Eighth furlong up to
9th mile Est Rs 3380 Rpts 59 of 85/87
Expenditure during the year Rs 910

There was very little progress
on the following 2 large works
Costing over Rs 10,000.

5 7

(1). Improving Battiseripuram
Road or otherwise called road
from

from Oopalada to the foot of Kerangi ghat Est Rs 13530 Rpno 191 of 86/87 Expenditure upto date Rs 11271. During the year Rs. 504.

(2) Ghat Road upto Gumma Pass. Est Rs. 25700 Rpno. 171 of 85/87 Expenditure upto date Rs. 8172 During the year Rs. 383-

Communications

Repairs

The number of roads repaired during the year were 16. of which the following are worthy of note.

(1) Kinnoi Parapuram Road Expenditure Rs 979

(2). Planting avenues to Palem and Lembore & Rajahs Garden road Expenditure Rs 985 Est 1000

(3). Nortata Road Expenditure Rs 769 Est Rs 780

(4) Garabanda Kinchelingi road Expenditure Expenditure Rs 404 Estimate Rs 550

(5) Lekkalapatnam Goppilli road Expenditure Rs 420 Est Rs 600

(6) Palem Lembore Road Expenditure Rs 964 Est Rs 990

(7) Kinnoi Kinchellingi road Expenditure Rs 1252 Est 1220

(8) Gurada road Expenditure Rs 602 Est 600

(9) Gumma road Communications Completed from junction Varanasi & Kinnigi Kinnigi Expenditure Rs 265 Est 670

(10) Road from Pattupuram to Goppilli via Garabanda Expenditure Rs 861- Est 1390

Cheruvukinnidi Estate

Cutting Compared with Grant is as follows:-

Department & Works head	Original Grant	Revised Grant	Cutting	Difference More	Difference Less	
Irrigation — Original Works	6500	200	187	-	887	
Irrigation — Repairs	5000	2500	2004	-	496	
Civil Buildings — Original Works	3000	3000	4193	1193	-	
Civil Buildings — Repairs	2000	1000	312	-	688	
		670	682			52
Establishment	3450	1541	1118	-	423	
Total	18450	8241	6940	193	2494	
					1301	

Great

Greater portion of grant had to be suspended, as sufficient number of Estimates have not been prepared for want of Depn. ~~= temporary subordinate official to be appointed~~ and sufficient Establishment.

Irrigation Original Works

The Minus figure in the Column outlay against this head represents outlay incurred on the work Flood damages to Godakallow Anicut (Est Rs. 2250 Rpts Rs 278 / 87/88) which is a repair work erroneously Charged to "Improvements to to Godakallow Anicut". This amount was written back to Repairs during the year under review.

Irrigation Repairs

The number of works in progress were 8 of which 6 were wholly or nearly completed.

The only important work ~~in progress~~ completed is

in Flood damages to Godakallow Anicut Est Rs. 2250 Rpts Rs. 278 of 86/87 Expenditure Rs. 1253.

Civil Buildings Original Works

The two works completed during the year were.

(1) Constructing Compound wall around Kumindan's Palace at Pudukkottai Est Rs 5240 — Expenditure Rs 4732.

(2) Constructing a Cook house at Pudukkottai Est Rs 710 Expenditure Rs. 657.

Civil Buildings Repairs

The only work repaired was Pattipoor Bungalow Est Rs. 610 Expenditure during the year Rs 312.—

Jarada Estate

Outlay Compared with grant is as follows.

Departmental & Service Heads	Original grant	Revised grant	Outlay	Saving: More	Saving: Less
Irrigation: Original Works	1000	100	72	-	28
Irrigation: Repairs	3500	500	288	-	212
Civil Buildings: Original Works	750	750	194	-	556
Civil Buildings: Repairs	750	750	823	73	-
Communications: Original Works	5500	1010	395	-	615
Communications: Repairs	500	500	-	-	500
Establishment	2530	831	406	-	425
Total	13530	4441	2178	73	2336 / 2263

The large saving shown is due to want of sufficient Establishment for the preparation of Estimates. An Establishment was however sanctioned later on in the year but was not entertained owing to the proposals made by Superintending Engineer for going out the work on Contract by a retired Assistant Engineer.

Irrigation Original Works

No important works were executed during the year.

Irrigation Repairs

The following works were repaired during the year -

(1) Closing breaches at Narazana pursuing Poldadagaram Expenditure upto date Rs 276. Expenditure during the year Rs 38. Estimate Rs 230

(2) Repairing Calingulah & Narayanapuram Poldadagaram Expenditure Rs 195 — Estimate Rs 200

Buildings. Original Works

The only works in progress were 4 of which the following were completed.

(1) Repairing Court house at the Jarada palace Est Rs 530 Expenditure Rs 488.

(2) Repairing Sarathy Swamy's temple in Jarada palace Est Rs 314

Exp.

Expenditure Rs. 297.

(3) Repairing hall in front of Gangabiharaswamy's temple Est Rs 500. Expenditure Rs. 702.

(4) Repairing Rice store shed at Jarada Est Rs 25 Expenditure Rs 25.-

(5) Repairing upstair building in the front gate in Jarada palace Est Rs 95 Expenditure Rs. 105.

(6.) Repairing Stables attached to the palace Est Rs. 85 Expenditure Rs. 88.

(7). Repairs to Garden pavilion attached to Jarada palace. Est Rs 36 Expenditure Rs 33

Communications

Original Works

The only two roads in progress were -

1. [illegible] leaving the Cross road from Main road as far as Horse drinking water tank Est Rs 260 Expenditure Rs 61

(2) Improving road from Palace to inspection shed in Mangoe tope Jarada Est Rs. 1150 Expenditure Rs 334.

Bodagada Estate

Outlay compared with grant is as follows:- 24/3/59

Departmental Revenue heads	Original grant	Revised grant	outlay	Differences: more	Differences: less
Irrigation — Repairs	-	-	872	872	-
Civil Building — Repairs	-	-	853 / 131	853	-
Establishment	-	-	397	397	-
Total	-	-	2128	2128	-

The Court of wards have not allotted the amounts proposed in their proceedings No. 840-87 25-4-88, GO No 1314 Rev 25-6-88.

The amount proposed including Establishment was Rs 4920 and the Expenditure was Rs 2128 as shown above. There was an actual Short outlay of Rs. 2792.

Engr

Irrigation Repairs

Number of Works in progress were 7. all of which were Completed.

(1) Repairs to Lalitapoora and Tank Est Rs 65 Expenditure Rs 64

(2) Repairs to Chozonmuli Bundh of Chonamari Est Rs 60 Expenditure Rs 119

(3) Repairs to Saulara bundh of Pattabandy Est Rs 200. Expenditure Rs 215.

(4) Repairs to Krishnaiyanna of Bandhagama Est Rs 130 Expenditure Rs 112.

(5) Repairs to Bandabandh of Boramandali Estimate Rs 200 Expenditure Rs 167

(6) Repairs to Lagaabandh of Boraniji Est Rs 80 Expenditure Rs 65.

(7) Repairs to Gonakompa bandh of Goharlandi Est Rs 190 Expenditure Rs 126.

Buildings

Buildings Repairs

147/15

The following buildings were repaired during the year.

(1) Terraced roof of Inner premises of Bodagada Estimate Rs 2060 Expenditure Rs 1622.

(2) Radha Mohana swamy's temple at Bodagada Est Rs 160 Expenditure Rs 111.

(3) Manager's Office Bodagada Estate. Estimate Rs 44 Expenditure Rs 41.

The last 2 works were Completed.

Urlam Estate

58

Cutting Compared with Grant is as follows:-

56

57

Departmental Heads & Sources	Original Estimate Grant	Revised Grant	Outlay	Difference: Excess	Difference: Saving
Irrigation: Original Works	8000	2000	236	-	1764
Irrigation: Repairs	3000	1500	1398	-	102
Civil Buildings: Original Works	2000	2000	3388	1388	-
Civil Buildings: Repairs	2000	2000	2653	653	-
Communications: Original Works	4000	530	233	-	297
Communications: Repairs	700	530	507	-	43
Establishment	4531	1966	1934	-	32
Total	24231	10,516	10349	2041	2208 / 167

The amount of grants surrendered is Rs 13715 of which Rs 10,000 is for the following reasons:—

Rs 8000 under Irrigation Original Works for want of sanction to an estimate for Rs 12430 for Mahagama channel head regulator Rs 4000 provided in the Budget for Mahagama road was not required vide Govt No 3087 of 1st October 1908.

Irrigation Original Works

The undermentioned three works were completed

(1) Constructing a Weir across Ustiyalama Est Rs 745/- Expenditure Rs 669/-

(2) Constructing Escape Weir over Polatty channel Est Rs 120 Expenditure Rs 111-

(3) Constructing masonry sluice to both ends of Lane leading to granaries at Iarlam Est Rs 50/ Expenditure Rs 47

The undermentioned works are in progress

Constructing flight of Steps in the Tank bund at Iarlam Est Rs 60 Expenditure 17 Rs

Irrigation Repairs

The number of Works in progress were 8.

The following Works were completed.

(1) Repairing Cholavara Kondachorkai Sluice and Branch channel Est Rs 115 Expenditure Rs 58.

(2) Repairing Konda branch
Channel of Kodavaraw
Est Rs 150 Expenditure Rs 145.

(3) Providing wooden shutters
to Konda Coluguladi of
Thondawaraw Est Rs 30 Expenditure
Rs 21

The following works were nearly
Completed.

(1) Repairs to the Regulator and
branch channel of Verlane
Village Est Rs. 150 Expenditure Rs 100.

(2) Repairing Devanori branch
Channel Est Rs 160 Expenditure Rs 140.

(3) Repairs to Gopalapanter
Channel Estimate Rs 200/ Ex-
penditure Rs 148-

The following works are
in progress.

(1) Clearing silt in Mohagam
Main channel and making
a doony channel in renew
bed Est Rs 1020 Expenditure
Rs 647

(2) Repairing the bund of
Kota Tank of Gopalapanta

Estimate

Estimate Rs. 380 Expenditure Rs. 170

24 ✓

Buildings. Original Works

The following works were
Completed during the year -

(1) Constructing Compound
wall around open ground attached
to Divisional residence Est Rs 820/-
Expenditure Rs 800 -

(2) Cattle shed at Verlane
Est Rs 900 Expenditure Rs 879

(3) Reconstructing two Kolgama
: Mantapams at Deva de
temples Est Rs 880 Expenditure
Rs. 873.

(4) Fixing a pump in a well
in the residence of Mudi
at Verlane Est Rs 130. Expenditure
Rs 87.

(5) Constructing a Cook godown
at Verlane Est Rs 350 Expenditure
Rs 376.

(6) Improvements to Cattle
shed to convert as temporary
residence to Governess
Quarters at Verlane Est Rs 230
Expenditure Rs 321.

The following works are in progress

(1) Reconstructing Inniss's bungalow at Urlawe Est Rs 2700 Expenditure Rs 1634.-

(2) Constructing bathing shed for Salaried Officers at Urlawe Est Rs 1560 Expenditure Rs 450.

Building Repairs

The following work Ro. were Completed.

(1) Repairing Inniss residence and outhouses at Urlawe Est Rs. 1870 Expenditure 1612.

(2) Repairing I & II Buildings of proprietary of Urlawe at Chicacole Est Rs 660 Expenditure Rs 449.

(3) Repairing Inniss buildings at Parvatalapatta Estimated Rs 580 Expenditure Rs 446

(4) Repairing III & IV building of proprietary of Urlawe at Chicacole Est Rs 570 Expenditure Rs 519.

(5) Filling in pits in the open ground Latty enclosed at Urlawe Est Rs 190 Expenditure Rs 77.- 24.36

The following works are in progress

(1) Repairing 15 houses at Devadi Est Rs 1340 Expenditure Rs 976

(2) Repairing Temporary Quarters of Governess Est Rs 58 Expenditure Rs 18.

(3) Special Repairs to Chavilly at Devadi Est Rs 660 Expenditure Rs 352.

Communications

Original Works

The following works were Completed

(1) Raising and gravelling the Urlawe Village Road Est Rs 450 Expenditure Rs 352. 50

(2) Making a new road in the Northern Street of Urlawe Est Rs 190 Expenditure Rs 147.

(3) Constructing 2 tunnels on the Village road at Urlam Estimate Rs 140 Expenditure Rs 126.

The following work is in progress:-

(1) Making a new road in the street of Devadi in Urlam Estate Est Rs. 500 Expenditure Rs 119.

Communications - Repairs

The following Works were Completed during the year.

(1) Maintenance Urlam Estate Road from Trunk Road to Urlam Est Rs 390 Expenditure Rs. 332

(2) Planting Avenues in the Urlam Estate road Estimate Rs 160 Expenditure Rs 165—

Dharakotta Estate

1926/27

Outlay Compared with Grant is as follows-

Departmental Heads	Original Grant	Revised Grant	Outlay	Difference	
				More	Less
Irrigation { Original Works	—	—	686	686	—
Irrigation { Repairs	—	—	354	354	—
Civil Buildings { Original Works	—	—	3669	3669	—
Civil Buildings { Repairs	—	—	548	548	—
Establishment	—	—	4657 1070	4657 1070	—
Total	—	—	5727	5727	—

The Court of Wards have not allotted the amounts proposed in their proceedings No 840 of 25-4-8 G.O. No 1544/5 of 25. May 1928. The amount proposed was Rs. 7380 and the Expenditure was Rs 5727 as shown above. Ot

There was an actual

Ch

shortage of Rs 1653.—

Irrigation Original Works

The works in progress during the year were:—

(1) Constructing Sluice & Regabandha of Kodabhaga Estimate Rs 130 Rpts 56 of 87-88 Expenditure Rs 148

(2) Constructing Caliyula & Regabandha of Kodabhaga Est Rs 172 Rpts 565 of 87-88 Expenditure Rs 188

(3) Constructing Sluice of Bodahengaji bandha of Pratapuram Est Rs 150 Rpts 56 of 87-88 Expenditure Rs 140.

(4) Constructing Calingula & Bodahengaji bandha of Pratapuram Est Rs 200 Rpts 22 of 87-88 Expenditure Rs 172

(5) Constructing an Irrigation sluice & Solabandha of Kuruwabo Est Rs 130 Rpts 639 of 88/89 Expenditure Rs 3.

Nos 1. 2 & 4 were Completed

2436/60

Irrigation Repairs

Number of Works in progress were 5 of which the following are the important works Completed.

(1) Repairs & Regabandha of Kodabhaga Est Rs 420 Rpts 670 of 86-87 Expenditure Rs 136.

(2) Special Repairs & Bodahengaji bandha of Pratapuram Est Rs 200 Rpts 449 of 87-88 Expenditure Rs 26-

Civil buildings

Original Works

The undermentioned two works were in progress:-

(1) Completing Compound wall around Kemindars palace at Ohara Rotta Est Rs 1000 Expenditure Rs 838/-

(2) Constructing Katcharry at

at Mondawari Est Rs 2400
[illegible] Rs 2232.
[illegible] mentioned work
[illegible] leted.

Civil Buildings

Repairs

Two works were in progress and they were Completed.

1). Repairs to Cattle shed at Samadarapalli Est Rs 400 Expenditure Rs 379.

(2). Repairs to thatched houses at Chara Kotta Palace Est Rs 420 Expenditure Rs 405.

Chatrapalli & Tarlapotta Estate

2425/61

The outlay compared with grant is as follows-

Departmental & Service heads	Original grant	Revised grant	outlay	Difference: Excess	Difference: Less
Irrigation — Repairs	"	"	60	60	"
Civil Buildings — Repairs	"	"	520	520	"
Establishment	"	"	130	130	"
Total	"	"	700	700	"

The Court of Wards have not allotted the amounts proposed in their proceedings No. 840 of 25-4-88 & G.O. No. 1544 dt 25th May 1888. The amount proposed including Establishment was Rs 1476. The Expenditure as above stated was Rs 700. There was therefore actually a short outlay

of Rs. 776.

The only works sanctioned were:-

(1) Repairing the building belonging to Chakipalli & Tarlapatta Estate Est. Rs. 570 Rptn. 147 of 87-88.

(2) Repairing Iskalamah Calingulah & for making a new cart & Boppayapenam Gedda Est Rs 200 Rptn 244/88/85

The former was Completed at a cost of Rs. 520.

The latter was Commenced only in February & a sum of Rs. 50/- was spent upon it.

Acka Estate

The outlay Compared with the grant for the year is as follows

Service Heads	Original grant	Revised grant	outlay	Expenditure: Excess	Saving
Original Works	-	-	160	160	-
Repairs	-	-	411	411	-
Establishment	-	-	131	131	-
			702	702	-

The Court of Wards Lands not allotted the amount proposed in G.O. No 1544 dated 25 May 1888. The amount proposed including Establishment was Rs 1230 and the Expenditure as shown above was Rs 702:- There was a shortfall of Rs. 528-

The only works sanctioned and Executed were:—

(1) Constructing a Compound wall on the Sides of the managers office at Acka Rptn 160/88/85 Est Rs 156 Expended Rs. 160-

(2) Repairs to managers office at Acka Rptn 161/88/85 Est. Rs. 420 Expenditure Rs 412.—

Kurla Estate

The outlay Compared with the grant of the year is as follows:—

Departmental Heads	Original grant	Revised grant	outlay	Difference: more	Difference: less	
Civil Buildings - Repairs	"	"	1811	1811	"	
Establishment	-	-	416	416	..	
Total	-	-	2227	2227	-	

The Court of Wards have not allotted the amounts proposed vi Govt no 15246 of 25th May 38. The amount proposed including Establishment was R. 1230. and the Expenditure as shown above was Rs 2227 or 997 Rs more than the grant proposed.

The Works completed during the year were

(1) Repairs to Hunda Malakotai Upstair building Est No 1290 Expenditure Rs. 1282. Rpts 95/39.

(2) Special repairs to Travellers Bungalow of Kurla Malakotai Est No. 520 Expenditure Rs. 423 Rpts 28/39

(3) Special repairs to the gate shall of the Kurla Malakotai Est No 170 Expenditure Rs 158 Rpts 145/38/39.

2436/63

2436

There were no other works in progress —

Attagada and Thallikotta Estate

The outlay Compared with the grant was as follows -

Departmental Heads		Original grant	Revised grant	outlay	Difference: more	Difference: less	
Irrigation	Original Works	2000	2000	-	-	2000	
	Repairs	3000	3000	2350	-	650	
Civil Buildings	Original Works	800	2000	895	..	1105	
	Repairs	1000	1000	851	-	149	
Communications	Original Works	7000	500	-	-	500	
	Repairs	3000	1000	1543	-	457	
			10500	5646			
Establishment		5750	205	1299	-	1116	
Total		30750	12915	6944	-	5971	

Greater

greater portion of the original post had to be surrendered on account of want of staff: = cient Establishment to prepare Estimates -

Almost the whole of the sanctioned Expenditure was from Rs. 1000 to March, the outlay after end of October being only Rs 572. This was due to an upper - Subordinate having been put in Charge of Berlampore Sub D: since November 88 -

Irrigated Repairs

Number of works in progress were 24. out of which 2 were Completed.

(1) Emergent Repairs to Kora Khaya or Earthen Dam across Comaipur river in Atagada Estate Est Rs 135. Register No. 348 of 88/89 Expenditure Rs. 131 -

(2) Closing breaches and raising bank of Bagguwa = patta Khaya of Gollamadalam in Atagada Estate Est Rs 41 Regn. 684 of 88/89 Expenditure Rs 40 -

The following are the important works in progress.

(1) Special repairs to Jammuch Inam kozzo bund of Orakapur Village Est: Rs 135 Expenditure Rs. 126 Regn. 349 of 88/89

(2) Closing breaches & Raising the bund of 5 Khayas in Irrigation Earthen Dams of Chilla Village Khallikote Estate. Estimate Rs 165 — Expenditure Rs 62 Regn 353 of 188/89

(3) Closing breaches to Bangunia Raga Khaya of Komanda Est Rs. 166 Expenditure Rs. 89 Regn 350 of 88/89.

(3)

year

(1) Repairs to Manager's house at Khallikotta Est Rs 80 —
Expenditure Rs 54.

(2) Repairs to Thereta dáo house at Khallikotta Est Rs 90
Expenditure Rs 78 —

(3) Repairing thatched house No I at Boyerani. Khallikote Estate. Estimate Rs 240 —
Expenditure Rs. 207 —

(4) Repairing — do — house — do — Estimate Rs. 360
Expenditure Rs 334.

(5). Repairing 3 thatched houses at Gopikudda on the islands in Chilka lake Estimate Rs. 64 —
Expenditure Rs 57 —

Communications
Repairs

The only work Commenced and in progress during the year

year, is repairing the road from Haradamalle to the Cuttack Road to Nimapara via Khallikotta Estimate Rs 2700. Expenditure Rs. 1545 Rupees 1729 8789

21/3

General Remarks

24th/67

Parlakimedi. The progress was not satisfactory, which is owing to want of zeal and energy on the part of the Sub Engineer in charge, and the Overseer attached to the Sub Division, although the unsatisfactory result is partly due to a change in the Officers.

Urlam - Chakapallimedu Parlapatta Estates

The short Expenditure on works in these Estates was owing to want of sufficient number of Sanctioned Estimates. The difference between the Outlay and the revised grant for Urlam is only Rs. 167.

All the other Estates

Seve

† Seven ai Kumber were directly under the Executive Engineer up to end of October 88. The progress was slow for want of a Sub Divisional Officer who in charge of Bochampore Sub Division.

One was put in charge ai Kovember and the accompanying statement shows outlay incurred on the 7 Estates up to October and from that date to End of Official year. The Expenditure during the Seven months, the Estates were directly under the Executive Engineer was Rs. 10,010 and in the remaining 5 months it was Rs 16,837-

* (1) Chemakiriadi
(2) Jarada
(3) Bodagada
(4) Chanakotta
(5) Atka
(6) Kurla
(7) Atagada & Khallikotta

Estates	Outlay during the year 1888/89	Upto End of October 88	From November to end of Official year.
Chemakiriadi	6940	5,412	1528
Jarada	2179	1360	819
Bodagada	2128	1028	1100
Chanakotta	5727	1468	4259
Atka	702	-	702
Kurla	2227	170	2057
Atagada & Khallikotta	6944	572	6372
Total	26,847	10,010	16,837

2435/68

Executive Engineer
Ganjam Dn

Bochampore
1st June 1889

N Ramaramanadu
2/6/89
accn

Submitted to the Chief Engineer P.W.D.
for information.

Major R.E.
Supg Engineer
1st circle

10 June 1889.

JK
10/6/89

P 86-6-89

No 113 S.E.

From

The Executive Engineer
Ganjam Division

To

The Superintending
Engineer
1st Circle.

Dated 1st
Despd. 2nd } June 1889
Received.

Ganjam Div

Administration report
of the Wards' Estates
attached to the —— for 1888-89.

2 P 36
60

FROM,

Major D. McNeil Campbell

THE SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 10th
DESPATCHED 21 June 188
RECEIVED

~~NO.~~

~~ENCLOSURES.~~

SUBJECT.

Ganjam Division

Administration Report of Wards Estate attached to the — for 1888-89 —

2486.

N. 169. 26

FROM,

Major D. McNeil Campbell R.E.

SUPERINTENDING ENGINEER

24.36/10

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DOWLAISHWERAM, 22nd June 1889

SIR,

With reference to your memo-
-randum No. 2789 C dated the 14th
I have the honor to inform y
that the two administration Repo
for the Court of Wards forwarded
on the 15th June 1889 contain the info
-tion required by you in the mem
-dum under reference.

I have the honor to
Sir,
Your most obedient Se
J. McN. Campbell Major
Superintending En
1st C

(1) One for the Lakkavaram Estate
(2) One for the Estates in the Ganjam Division

1st C. No. 5634, 5635
Sent up to Atg on 21st June

JK

2426/71

No 2759 c 84. 6 89

FROM,

Major H. Burkit Campbell
SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO.

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 22nd
DESPATCHED 24th June 1889
RECEIVED

NO 1069 E.C.

ENCLOSURES

SUBJECT.

Reporting that the Divisional Officers have already been given to understand that the Estimates should in the Administration Report

II Circle.

Statement shewing the grants and outlay under Imperial Funds for the Official Year 1888-89.

Divisions	Military		Civil Buildings.												Total		Remarks.
			Postal				Telegraph				Salt						
	Repairs		Original works		Repairs		Original works		Repairs		Original works		Repairs				
	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	
Kistna Eastern	"	"	"	"	345	367	1,271	1,262	608	414	"	"	"	"	2,224	2,043	
Kistna Western	"	"	"	"	"	"	"	"	100	100	"	"	"	"	100	100	
Nellore	93	93	"	"	5	-5	"	"	"	"	"	"	"	"	98	88	
Total	93	93	"	"	350	362	1,271	1,262	708	514	"	"	"	"	2,422	2,231	

Superintending Engineer's Office,
2nd Circle.
6th June 1889

J.
6.689.

J Hammond
Superintending Engineer
II Circle.

II Circle.

Statement showing the grants and outlay under Provincial, Local (incorporated) & Local (Excluded) Funds for the Official year 1888-89

Fund	Divisions	Civil Buildings				Communications				Miscellaneous Public Improvements				Total		Tools & Plant	
		Original works		Repairs		Original works		Repairs		Original works		Repairs					
		Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay	Grant	Outlay
Provincial	Kistna Eastern	4,089	14,032	3,350	3,509	"	"	"	"	"	"	500	511	17,939	18,052	1,300	1,213
	Kistna Western	10,220	9,672	850	641	"	"	"	"	"	"	"	"	11,070	10,313	50	10
	Nellore	23,218	22,745	2,660	2,564	"	"	"	"	"	"	"	"	25,868	25,309	2,000	2,026
	Buckingham Canal	"	"	"	"	"	"	"	"	3,210	3,106	"	"	3,210	3,106	"	"
	Total	47,527	46,449	6,850	6,714	"	"	"	"	3,210	3,106	500	511	58,087	56,780	3,350	3,249
Incorporated Local	Kistna Eastern	"	"	"	"	2,519	2,517	40	42	"	"	"	"	2,559	2,559	"	"
	Kistna Western	"	"	"	"	8,488	1,325	1,293	"	"	"	"	"	1,325	9,781	"	"
	Nellore	"	"	"	"	"	400	400	"	"	"	"	"	400	400	"	"
	Total	"	"	"	"	2,519	11,005	1,765	1,735	"	"	"	"	4,284	12,740	"	"
Excluded Local	Buckingham Canal	"	"	"	"	"	"	"	"	"	"	64	430	409	430	473	"
	Total	"	"	"	"	"	"	"	"	"	"	64	430	409	430	473	"

Supt'g. Engr's Office,
2nd Circle.
6th June 1889

H.
6.6.89.

J Hunter
Supt'g. Engineer, II Circle.

Administration Report
of the 7/43½/74
Public Works Department
General Buildings and
Roads Branch,
for the Year
1888-89.

I. General Remarks.

Grant & Outlay

The grant under Military Repairs - Imperial - was Rs. 93 and the expenditure Rs. 93.

Under Imperial Civil works, the grant was Rs 2,329 and the expenditure Rs. 2,138.

Under Provincial, the grant was Rs. 58,087, while the expenditure Rs 56,780.

The grant under Incorporated Local Funds was Rs 4,284 and the expenditure Rs. 12,740.

Under Excluded Local, the grant was Rs. 430 & the expenditure Rs 473.

2. Divisional charges.

The following Officers were in charge of the several.

several Divisions during the year.

Kistna Eastern Division.

Mr. J. Traill, Executive Engineer from 1st April to 23rd May 1888.

Mr. A. M. Hayes, Executive Engineer, from 24th May 1888 to 20th January 1889.

Major L. Langley, R.E. Executive Engineer, from 21st January to 31st March 1889.

Kistna Western Division.

No change - Mr. A. B. Todd, Executive Engineer held charge of the Division throughout the year.

Nellore Division.

Mr. A. A. G. Malet, Executive Engineer, from 1st April 188 to 16th November 1888.

Mr. H. H. O'Connell, Executive Engineer, from 17th November 188 to 31st March 1889.

Buckingham Canal Division:

Mr. C. Vincent, Executive Engineer, from 1st April 1888 to 12th March 1889.

Mr. J. C. Larminie, Ex. Engr. from 14th to 31st March 189.

P.W.W. sent to press 19/6/9

Gudivada Temporary Div.

This Division was reconstituted from 1st August 88. There being no Executive Engineer available, Asst. Engineers Messrs. C. H. D. Marjoribanks and G. F. Handcock were placed in charge of the Division till the end of the Official year, Mr. S. Gopalakrishna Iyer, Executive Engineer having taken charge of the Division on the afternoon of the 31st March 89.

3 - Sub-Divisions

Rearrangement of Sub-Divisions of the Buckingham canal was sanctioned in G.O. No. 889. W. dated 25th March 1889 instead of that approved in G.O. No. 761 W. of 6th March 1888.

4. Service Books.

The Service books have been correctly maintained, and they are being verified in accordance with G.O. No. 2231. W. dated 21st July 1888.

5.

5 Nellore Public Works Workshops.

This Institution continued to work satisfactorily. The outturn during the year was Rs. 13,339-15-0 against 16,081-7-3 in the preceding year. A profit of Rs. 329-10-1 was obtained & credited to Provincial Revenue.

6. Rates & Prices.

No special remarks are necessary as the rates remained almost stationary during the year.

II. Progress of Works.

Imperial Military Works, Nellore Division.

1. The grant under this head was only under repairs and was allotted for the rent of a Military Apothecary's Quarters at Ongole in the Nellore District. As he was subsequently transferred, the expenditure ceased.

Imperial

Imperial Civil Works.

Kistna Eastern Division.

4. Kitchen in the compound of Telegraph Office at Bezvada was completed. The cost was Rs. 358-10-6 against an Estimate of Rs. 370.

9. The construction of another Godown in extension to the existing one in the compound of the Telegraph Office, Bezvada, was completed with an expenditure of Rs. 304-15-8 against an Estimate of Rs. 325-

10. A Godown in extension to the existing outhouses at the Telegraph Office, Masulipatam, was completed at a cost of Rs. 598 against an Estimate of Rs. 576.

11. The Telegraph Offices at Masulipatam and Bezvada were repaired during the year.

Kistna

Kistna Western Division.

12. The Telegraph Office at Guntur was repaired during the year.

III. Provincial Civil Buildings.

Kistna Eastern Division.

13. Repairs to the Collector's residence at Masulipatam were completed. The accounts were not closed. The expenditure on the work amounted to Rs. 14,153 against an Estimate of Rs. 14,305.

14. Corrugated Iron Goods shed in the Fort of Masulipatam was nearly completed. The expenditure amounted to Rs. 4,616 against an Estimate of Rs. 4,500. The excess over Estimate is due to the necessity for replacing some iron work broken in landing.

15. Two Head Constables' and ten Constables' huts at Bezwada were completed. The expenditure amounted to Rs. 3,585 against an Estimate of Rs. 4,538.

16. The following buildings were repaired during the year:-

(1) Kistna Eastern Div. Office.
(2) Supdg. Engineer's Residence and Office.
(3) Press Office & Cook room of the Collector's cutchery at Masulipatam.
(4) Protestant Cemetery in the Fort of Masulipatam.

Kistna Western Division.

17. The Sub-Registrar's Office at Bapatla was completed at a cost of Rs. 2,930 against an Estimate of Rs. 2,860. The building was finally handed over to the Registration Dept.

Department in Novr. 1888.

18. Work on the Taluk Cutcherry at Sattenapally was in progress. The expenditure amounted to Rs. 6,848 against an Estimate of Rs. 21,880.

19 Improvements to the Taluk Cutcherry at Repalle were in progress. The expenditure amounted to Rs. 796 against an Estimate of Rs. 1,845.

20. Repairs to the Karempudi District Munsiff's Court, and the Division Office at Duggirala, were completed. The plantations in the Division Office compound at Duggirala were maintained.

Nellore Division

21. The District Jail at Nellore was completed, and handed over to the Judicial Department. The

The expenditure amounted to Rs. 7,518 against an Estimate of Rs. 6,491. The excess was owing to additional work having been done.

22. Collector's Office, Nellore - The basement has been completed & the doors and windows prepared in the Nellore Workshops - The expenditure amounted to Rs. 14,457 against an Estimate of Rs. 48,455.

23. Materials were under collection for the Sea custom house at Kistnapatam.

24. The following works were completed during the year.

(1) Improvements to Sub-Collector's Bungalow at Ongole.
(2) Sub-Registrar's Office at Kandukur.
(3) Quarters for the Sub-Divisional Officer, Gudur.
(4) Improving Huzur Treasury room.

25.

25. The following buildings were repaired during the year.

(1) Old Sheristadar's room of Collector's Cutchery, Nellore.
(2) Sub-Collector's Cutchery, Ongole.
(3) Hill Bungalow at Ongole.
(4) Sub-Collector's Bungalow at Ongole.
(5) Collector's Bungalow at Nellore.
(6) Nellore Division Office.
(7) Police Asst. Superintendent's Bungalow at Ongole.

IV. Provincial Miscellaneous Public Improvements.

Buckingham Canal.

26. An estimate of Rs. 21,496 (inclusive of Rs 4,000 chargeable to the capital account of the Buckingham canal) for training the banks of the Adyar river was sanctioned in G.O. No. 1090 S. dated 19th April 1887, & an expenditure amounting to Rs. 4,857 was incurred upto the end of March 1889. A portion of the training bank 2,218' long was constructed, but during the floods of 1st November last, about 250 ft. of it was breached, which necessitated an alteration in the line of embankment which now extends over a length of 2828 ft. This bank had been completed & turfing alone remains to be done to a length of 860 ft, all further work was stopped under orders from the Chief Engineer for Irrigation (Memo. No. II / 22 B.C. of 6th March 1889), and a separate Estimate for the completion of the Right Flood bank is under preparation.

27. Demarcating lands taken up for Archaeological research at Mahabalipuram was completed. Estimate Rs. 210, Outlay Rs. 183.

Kistna Eastern Division.

28. The repairs to the Sea Dyke at Masulipatam were carried out.

V.

V. Local Incorporated.

Kistna Eastern ~~Division~~.

29. Landing stage at Bezvada was completed. The expenditure amounted to Rs 24,737 against an Estimate of Rs 23,925.

30. The Ferry road at Bezvada was repaired during the year.

Kistna Western ~~Division~~.

31. Rs 1,293 were spent against a grant of Rs 1,325 for the annual maintenance of the River and canal banks used as roads by the public. The banks were kept in fair and trafficable order.

32. The construction of a culvert under the Good water channel at Nizampatam, Estimate Rs 900, was completed with an expenditure of Rs 827.

33. Contributions

was spent on the Bridge to be combined with the Iskapally Aqueduct over Bhattiprole Drain and a sum of Rs 10,171 will be placed by the Local Fund Board, Kistna, at the disposal of the P.W. Department for the work.

Nellore ~~Division~~.

34. The Penner Anicut Roadway was gravelled, at a cost of Rs 399, against a grant of Rs 400.

VI. Local Excluded.

Buckingham canal ~~Div~~.

Nellore ~~Circle~~

35. Alterations and Improvements to the Superintendent's quarters Armeghon Light House were completed during the year. The total expenditure amounted to Rs 1,112 against an Estimate of Rs 1,128.

Sd/ Lydapett

Sydapett Circle.

36. The following repairs were carried out:-

(1) Repairing Light House Superintendents' Quarters at Pulicat.

(2) Repairs to Pulicat Light House.

The Light Houses at Pulicat and Armeghon were efficiently kept during the year.

J. Hammond

Superintending Engineer,
II Circle.

Supdg. Engr's Office,
2nd Circle.
6th June 1889

243 81

83

PWC No 5233

Press
Issued
Proofs pled 7/3
19/6/89

2nd Circle

Administration Report
of the
Public Works Department,
(General Buildings and
Roads Branch)
for the year
1888-89.

Administration Report of the
Superintending Engineer III Circle
(Buildings and Roads) for 1888-89.

1. General Remarks 24/36 8/3

1. The administration of the Circle continued in the hands of Colonel H Smalley R.E Superintending Engineer.

2. Grants and expenditure :- The original grant under "Imperial Military" for the Bellary Division was Rs 33660, the revised grant was Rs 37352 for Major Works and Rs 7915 for Minor Works and the expenditure amounted to Rs 37179 and 7913 respectively.

" " Under Imperial Civil Building" the figures were

Divisions	Original grant	Revised grant	Outlay
Postal	200	80	88
Bellary	200	812	762
Cuddapah	200	50	39
Kurnool			
Telegraph	200	200	187
Bellary	"	"	"
Cuddapah	"	"	"
Kurnool	"	"	"
Total Postal & Telegraph	800	1142	1076

under Provincial, the Original Grant
was Rs 129999 the revised grant
Rs 125826 and the expenditure 123159.

3. The contract system is generally in force throughout the Circle. — Contract System

4. There have been no appreciable fluctuations in prices of labor and materials during the year. — Rates

The season has been favorable. A good deal of sickness prevailed in Cuddapah District. — Season

A more than ample stock is available in the Circle vide G.O. No 2787 D dated 4th November 84. — Reserve Stock of Tools for Relief Works.

Estimates for relief works of simple character for parts of Bellary and Anantapur Districts are ready to be sanctioned in case of necessity arising for relief operations. — Programme of Famine Relief Works.

Service books have been maintained for all public servants and are brought up to date. — Service Books

II Progress of Works

I Imperial Military Works.

Bellary - New Gun shed for the Royal Artillery Work completed but the old gun shed had yet to be demolished. The Military Authorities could not vacate it until the new sheds were handed over. Estimate Rs 11560. Outlay Rs 7480 against an allotment of Rs 7590 outlay including previous years Rs 11465.

2. The Walls of work shops in the Arsenal were built to within 2 feet of the full height. Iron work for the roof and other roofing materials were at site. The chimney has been built to half its height. Roofing and flooring remains to be done. Estimate 45,500. outlay during the year Rs 22664 outlay up to date Rs 29532.

3. Trangalore tiles for Reroofing the verandah of the European Infantry married Lines and teak pieces &c. collected. Estimate pieces 18,307 - outlay Rs 6544 against the years allotment of Rs 6600.

Ten minor new Works were carried out

at an outlay of Rs 7918.

4. The total outlay under Repairs Military was Rs 38101—0—. This sum was expended in the maintenance and repairs of the Military Buildings and Roads including the Barrack Masters' expenditure on petty repairs and compensation for inferior and hired quarters.

II Imperial Civil Works

1. The Post office at Adony is being refloored with granite slabs. Outlay Rs 58 against the sanctioned estimate of Rs 120.

III Provincial Civil Buildings

Bellary

The two new wings of the Collector's Office at Bellary were completed with the exception of Iron Spiral Stair cases to the Towers, flooring of verandahs, and the final courses of tiles and plaster to the terraced roofs.

Estimate Rs 47541
Outlay 17047
Previous years outlay 27181

2. The Lower Story of the Collector's residence at Anantapore was completed. Owing to several causes the progress on the

Estimate Rs 38190
Outlay during the year 700
Previous years outlay 28757

work was not quite satisfactory. 8

Estimate Rs 2928
Past outlay 600
Outlay during the year 969

3. Walls of the 7 police huts at Vanavole were completed and the arched roofs commenced. 24/3/84

4. Materials at an outlay of Rs 3885 collected for the 1st class Talug Office at Kudligi. Estimate Rs 23871. Grant Rs 3804.

5. The undermentioned minor Repairs works were carried out.

1.	Coating with corrugated iron the roof the combined Supty & Exec Engrs office	Outlay Rs 1324
2.	Roofing room & gateway to the Cemetery at Bellary	514
3.	Arm Rack for the Collectors cutcherry at Anantapore	42
4.	Flat Terrace to the Surveyors office at Anantapore	114
5.	Arm Racks for the Borkapatam cutcherry	21

Cuddapah

Estimate Rs 143741
Grant for the year 35655
Outlay of the year 35349
Outlay up to date 117810

6. Roof of the Upper story of the Collectors Office, of the 4 large and 4 small domes and cut stone drawn

Anantapore

mantapams thereof have been finished and the roof of the Lower Story also completed. Plastering to walls and painting preserving pillars of latrine being constructed and timber being prepared. The printing office has been completed and handed over to the Revenue Department.

Estimate 31900
Grant — 11342
Outlay — 11342
Outlay up to date 35245

2. The years allotment, Rs 11342 for the alterations and improvements to the District Jail at Cuddapah was fully worked out. A revised estimate providing for the extra improvements carried out and for adding a compound wall is under preparation.

Estimate Rs 24638
Grant for the year 14400
Outlay — 9770
Outlay up to date 18404

3. The Registrar's office at Cuddapah is completed at a cost of Rs 5449 against the estimate of Rs 5192.

Estimate Rs 24638
Grant for the year 3176
Outlay for the year 2870
Outlay up to date 2870

9. The walls of the main building of the Taluq Office at Rajampet and of the book room and latrine are built to the full height. Trusses are being put to the main building, and materials for flooring and tiles for roofing are collected.

10. The Timber work of the roof of Christ church at Cuddapah is almost finished and the new ventilators are put up.

Estimate Rs 8508
Grant for the year 3157
Outlay of the year 2781
Outlay up to date 2781

11. The superstructure of the Divisional office at Giddapah was built up to 8 feet height.

12. The Foundations are almost finished for the Taluq office at Rudravaram. The outlay during the year amounted to Rs 5018 against the allotment of Rs 5000. Estimate Rs 21,330.

Kurnool Division

Estimate Rs 24638
Grant for the year 9000
Outlay — 8921
Outlay up to date 24638

12. Work on the Taluq office at Nandyal is almost completed and it will be handed over for occupation in a few days.

14. The nine Police Constables huts at Katteconda were completed at a cost of Rs 2814 against the estimate of Rs 2905.

Estimate Rs 14234
Grant for the year 5593
Outlay for the year 5089
Outlay up to date 5187

15. The walls of the Head Assistant Collector's office at Nandyal have been raised to roof level and the wood work for the roof being collected.

H Smalley Colr
Supt Engineer

S Nicole
Supt Engrs office
Bellary 31 May 1893

From

The Supt.g Engineer
3 Circle

To

The Chief Engineer
P. W. Dept.
Madras

Date 31 May 1889
Rec.d 1 June

Administration
Report of the Supt.g
Engineer 3rd Circle
Buildings & Roads for
1888-89

24/26
86

Administration Report
of the
Public Works Department
(General Buildings & Roads Branch)
Fourth Circle
Madras Presidency
for the year
1888-89.

I. General Remarks-

Colonel J. Beatty R.E,
Superintending Engineer
1st class held the charge
of the Fourth circle until
9th June 1888 when his ser-
vices were replaced at the
disposal of the Military
Department. Mr. J. W. Mar-
tin, Executive Engineer,
1st grade was in charge
of the Circle without
prejudice

prejudice to his own duties till he was relieved (20th June) by Colonel A.R.E. Drake Brockman R.E., Supdg. Engineer, whose tenure of Administration ended on the 20th September on his transfer to the charge of the 1st circle. Again Mr. Martin officiated as Superintg. Engineer, and was succeeded by Lieutt. Col. A.C. Smith R.E. on the 4th December and remained in charge of the Circle till the close of the year under review.

2. There were no changes in the charge of the Executive Divisions with the exception of the Coimbatore Division while Mr. Martin held the charge of the Circle for the second time Mr. G.B. Lambert Sub Divisional Officer, Salem, was placed in charge of the division without prejudice to his own duties.

3. Grants and Expenditure— The following statement shows the grants and expenditure under the different service heads:—

—	Original Grant	Revised Estimate	Expenditure
Imperial Military Works	32,874	100,587	102,153
—Do— Civil Works	"	3,060	3,161
Provincial Civil Works	363,302	510,783	506,444
Local & Incorporated Funds	"	10,000	1,982
—Do— Excluded Funds	"	4,758	3,527
Estate Works	"	2,938	428

4. Ootacamund North Water supply scheme was completed during the year as

as far as this Department was concerned, but owing to the failure of both monsoons, and of the Municipality to make the house Connections, great scarcity of water has ensued, and the town will not reap the full benefit of the new scheme until Marlimmed Reservoir receives its monsoon supply. In view of the inability of the Municipality to make the house connections Government sanctioned their construction by this Department, and the work was in rapid progress at the close of the year.

5. Cruz Milagre Dam Cochin:- The revetment of

of the Dam was brought to its original height. Half yearly Survey and levels of the Dam were taken at a cost of Rs: 20.

6. Mangalore Harbour The Gurpur mouth remained closed and Ullal mouth presented little change in position. A scheme for Rs: 32,585 has been submitted to the Presidency Port Officer for connecting the old Marine yard Quay to the Custom House old Quay in Mangalore Harbour by a Road.

7. Wynaad Communications Reforming the surface and metalling the Calicut Vayitri Road was all completed. The whole of the Iron Bridges were fitted

fitted and opened for traffic, except one small bridge in the 3rd mile, the old abutments of which had to be rebuilt.

The road was maintained during the year in fairly passable order under, for part of it, difficult circumstances at a cost of Rs. 29040

The outlay on both the new work & repairs amounted during the year to Rs: 147,959 against a grant of Rs: 144,224 the total outlay from the commencement of the work up to the end of the year being Rupees 4,29,770, against the estimate of Rs 4,11,965.

The Vayitri-Chundale Road

Road, 3 miles - a section of the Vayitri-Gundalur Road was metalled at an outlay of Rs: 10,038 against a grant of Rs: 10,000.

The Kanooth Bridge on this road was repaired at a cost of Rs: 1024-

Vayitri-Gundalur Road 47 miles in the Nilgiri Dist. A revised estimate amounting to Rs: 5,50,000 has been submitted, and a commencement was made with the earth work of widening the road & the collection of metal. The Cholai Bridge of 2 spans of 50 feet in the 22nd mile of the road, which has proved a work of great difficulty owing to the extreme unhealthiness of the locality was

practically finished at the close of the year and will be opened for traffic in May. The outlay during the year on this section of the road is Rs: 35,145.

6. Road from Kullar to Gudalur. This is a section of the main line of communication which commencing at Mettupol-lium on the eastern side of the Nilgiris traverses the hills and Wynaad & joins the road starting from Calicut on the Western Coast. The road which includes the Coonoor Ghat on our side and the Gudalur Ghat on the other was maintained in

good order during the year under review at a cost of Rs: 38,000. The renewal of mile & furlong stones was completed. Rs: 7234 were spent on repairing bridges on the Coonoor-Kullar section, and Rs: 3,889 on collecting metal for renetalling a portion of the road, the feature of the year being the introduction of smaller sized metal. The road has certainly been in better order than ever before.

A 6 ton steam Roller for work on the Coonoor Ghat arrived from England at the close of the year, and steamed up the Ghat from

from Mettupollium to Benhopa in a very satis-
-factory manner.

9. The old Breaks' School and Municipal Office were converted into a subjudges Court during the year with very satisfactory re-
-sults.

10. A Commence-
ment was made with quarters for married band men of H.E. the Governor's Band and with a Hospital for the boys of the Law-
-rence Asylum, the latter out of Asylum funds.

11. Hobart's Park- was greatly improved during the year with a new road and grass ride, additional

, additional Vdrains, &c.

12. The fencing and planting of the Lake margin were completed, as also were the improve-
ments to the Army Head Quarters on Mount Stuart

13. The Adam Memorial fountain was opened on the 28th May 1888.

14. At Wellington Quarters for 3 apothecaries were completed, and quar-
-ters for 4 Lady Nurses commenced, the latter from private funds.

15. The Bakery at Wellington was com-
-pleted and is a satisfac-
tory work, except with regard to the draught on the ovens which is still defective.

16. English stores-

A

A large quantity of stores for works in Nilgiris arrived from England during the year under review. Some of them are defective, others unsuitable, and many will doubtless remain on hand for years. Owing to the impossibility of estimating requirements a year beforehand, the system of obtaining stores from England instead of by local purchase as required will always be productive of waste, and expense

17- Requirements- The work of greatest publicity in the division (Nilgiris) would be filling in of the Cotacamund Lake above

the Willow Bund, it would cost Rs 8,000 and would be a great boon on sanitary grounds alone.

18. Inspection of Light Houses and Ports:- The light houses from Cochin to Mangalore were inspected by the Presidency Port Officer, and the Executive Engineer West Coast Dn. conjointly in the months of November & December, as well as projected improvements to the ports of Cochin Tellicherry, Cannanore Mangalore, Malpi and Coondapur. The light houses were also subsequently inspected by Lieut. Colonel Smith RE in the month of March.

19. Lake Bickfield

further

further experiments with clay of various descriptions at the Lake Brickfield at Ootacamund have been tried without success, and it is now proposed to finally abandon the field sell the buildings and plant and obtain bricks by Contract.

20. Service books.- The orders with respect to the due and correct maintenance of the service books of public servants have generally been attended to by the officers in this Circle

—

II. Progress of Works

I. Imperial Military Works

21. Nilgiris - The following works were completed or in progress.

(1) The Bakery at Wellington was completed at a cost of Rs. 35,785 against an estimate of Rs. 35,850

(2) Quarters for three Apothecaries were practically completed, only a few minor items remaining to be executed at the close of the year & were occupied at the end of the year. Estimate Rs. 16,000, outlay Rs. 14,566.

(3) Minor Works expenditure Rs. 3,606, allotment Rs. 3,530.

The principal works were- Completing the laying of the

II. Progress

To C.A.W.

General Remarks and comparative Statement - IV Circle Administration Report.

FB.

SKW 8/6/9

Not required for the General Chapter - but Remarks on individual works should be entered in Part II

RS 10-VI-09

The first 3 pp sheets forwarded to C.A.W. 8/6/9

the 2" pipes from drinking water cistern to station Hospital at Wellington-

outlay Rs: 540

Supplying Cooking stoves to 8 staff Sergeants' Quarters at Wellington-

outlay Rs: 684

Reconstructing the Compound Wall of the Lock Hospital at Wellington- outlay Rs: 1049.

Providing Teak Wood Boxes for storage of Ball ammunition at Wellington, outlay Rs: 415.

Constructing a Urinal in rear of Singlemen's Barracks at Wellington- outlay Rs: 366

(4) Repairs were Executed to the Lawrence Asylum and the Military Buildings at a cost of Rs. 1997, and Rs. 23761 respectively. An outlay of Rs. 4247 was incurred on account of rent of hired buildings or compensation of Quarters for Military Subordinates of various Departments & for Depôt Officers.

12. Coimbatore- The following Minor original works were completed during the year:-

(1) Constructing a Well at site of the New Camping ground at Jallarpet, Estimate Rs: 655.

outlay

outlay during the year 43
" up to date " 471

(2) Converting the present kitchen attached to the Quarters for the superintendent of the Rest House, at Mettapollium into a shed for two sick carts and erecting a new Kitchen outlay Rs: 500.

(3) Constructing a drain screen wall & Cinerator in the Compound of the Rest House at Mettapollium outlay Rs: 25.

22. The following works were in progress:-

(1) Sinking a well in stud Lines and constructing a masonry Conduit at the Remount Depot Kosgama.

(2) Sinking a well near Sick Lines, and constructing a masonry Conduit, at the Remount Depot Kosgama.

(3) Extending the existing weir of the Jegoor Tank at the Remount Depot Kosgama.

23. The outlay under Repairs including compensation in lieu of quarters and rent of hired buildings for the Medical and Military Subordinates amounted to Rs: 4,653 against an allotment of Rs: 3,696. The excess outlay Rs: 957 was due to the emergent repairs carried out to the Rest House at Mettapollium and to certain buildings at

at the Remount Depot at the urgent requisition of the Military Authorities.

West Coast —

The new 3½ Block Barracks at Malapuram for 50 men was still in progress Masonry work completed including verandah pillars; 3/4 of the building roofed in, and asphalte flooring and plastering of the corresponding section completed.

The wash house and latrine were completed.

The improvements to the canteen were completed and the building handed over for

for occupation.

The drainage in connection with the completed Barracks were finished

The materials for a system of lightning conductors were procured from Bombay and the work commenced.

The outlay on the forenamed works in connection with Malapuram Barracks was Rs: 21,278 during the year against a grant of Rs: 20234-

A Contagious disease ward at Malapuram was almost completed. outlay Rs: 1260; Estimate Rs: 1,800.

II. Imperial Civil Works

Coimbatore- Repairs to the Post office at Tirupur and Mettupolliam were carried out.

Well in the Compound of the Post office at Salem was deepened.

The total outlay under this head was Rs: 220 against an allotment of Rs: 200.

Nilgiris- allotment Rs 625
outlay Rs 488

of which Rs: 388 were spent on Renewing Roof of Post office at Cheranbadi, and Rs. 100 on Improvements to Post Masters Quarters at Kotagiri:

Rs

Rupees 88 were spent on Repairs Postal and Rs. 220 on Repairs Telegraph Buildings.

West Coast- Iron bars were fixed to the Post office, Manantoddy at a cost of Rs. 140

Rs: 176 were spent in digging a well at the Post office, Malapuram a work still in hand.

The several Post Offices in the Division were kept in repair at a cost of Rs: 826-

III. Provincial Civil Buildings

Nilgiris- Rs: 7996 were spent in additions and Improvements to the

the Government House at Ootacamund; the principal items of expenditure being:-

Furniture Rs: 4,000

Married Bandsmen's Quarters " 1,800

Connecting Govt: House with Snowden water supply 1800

34- Rs: 3817 were spent on completing the repairs to Mount Stuart Buildings occupied by Army Head Quarters; the total expenditure being Rs: 20,464 against an Estimate of Rs: 22,330 The buildings are now in a satisfactory condition.

35. The Peons' Quarters on Mount Stuart were improved at a cost

cost of Rs: 2,000, the principal item being a new roof.

36. Providing accommodation for the Subordinate Judge at Ootacamund. The outlay during the year was Rs: 8,028- The total expenditure on this work which includes the New Breeks' School amounts to Rs: 58,055 against an estimate of Rs: 59,030, and the work was practically completed during the year, only a few petty items remaining to be done.

37. The Roman Catholic church at Wellington was supplied with furniture at a cost of Rs: 2,259.

38. The

38. The Protestant Church at Wellington was supplied with furniture at an outlay of Rs: 3762

39. Rupees 945 were spent in completing the alterations to the District Jail Buildings at Ootacamund.

40. The outlay on Minor Works during the year was Rs: 11,203.

The following are the principal works:-

(1) Covering with Mangalore tiles the roof of All Saints' Church at Coonoor. Rs: 1414

(2) Repairs to the Police station and Huts at Coonoor ------ " 1246

(3) Constructing 2 additional huts and providing Court yards to

to the existing huts at Kotagiri --- 1453 Rs: 2203

(4) Making alterations to Secretariat Peons' Quarters on Stone House Hill Ootacamund " 1882

(5) Constructing out houses to Police Inspectors' quarters at Wellington " 676

(6) Repairs to Police station and Huts at Wellington ------- " 791

(7) Latrine for the Police Constables at Gudalur ---------- " 435

41. A sum of Rs: 16,020 was spent on repairs, the chief items being,

(1) Repg. Government House and all subsidiary buildings ------ Rs: 2940

(2) Government Office on Stone house Hill " 931

(3) All Saints' Church Coonoor

Coonoor ---------- Rs: 739

(4) St: Thomas' Church
Ootacamund ---- " 624

(5) Dy: Tahsildar's Cutch
-erry: Coonoor --- " 1262

(6) Place of Arms on
Mount Stuart --- " 1240

42. Coimbatore - The following works were completed:-

(1) Constructing a Sub Registrar's office at Kollegal, Estimate Rs: 2,630
Outlay during the year " 1,558
Outlay up to date " 2,458

(2) Repairs to the Sub-Collector's Bungalow at Hosur, Estimate --- " 2,730
Outlay during the year ---------- " 2800

~~42~~ - The following major works were in progress:-

(1)

(8)

24 30/100

(1) Additions to the Central Jail at Salem
Estimate Rs: --- 6,340
Outlay during the year 4,627
Against a grant of Rs — 4,955
A sum of Rs: 328 was not utilized on this work owing to an outbreak of cholera which led to the work being stopped for two months at the request of the jail authorities.

(2) Reconstructing District Munsiff's Court at Karur:-
Estimate ---------- Rs: 17,420
Outlay during the year " 6,985
Against a grant of Rs: 8,000.
The short outlay is due to want of exertions on the part of the Contractor who was fined Rs: 50

107

(3) Repairs and Improvements to the Government

Taluq

Taluq School at Ramakul
Estimate ——— Rs: 4,300
outlay ——— " 2,940
Against the grant of " 3,220

(4) Constructing a subjail at Mettupolliam.
Estimate ——— Rs: 3,220
Outlay ——— " 2,940
Against the grant of " 3,220

44. A sum of Rs 5,008 was spent under Minor original works against the allotment of Rs: 5,012

The following works were completed during the year:-

(1) Repairs to the Overseer's shed at Karur outlay ——— Rs: 230

(2) Repairs to Inspection shed at Avinipollium - outlay ——— Rs: 41

(3) Improvements to the

2436/101

8

the Lake Division Office Building at Kustampatti outlay ——— Rs: 156

(4) Supplying punkahs to the Quarters of the Assistant Superintendent of Police; outlay ——— Rs: 95

3 (5) Converting Eastern Lock up of the Dy: Tahsildar's Cutcherry at Vaniambadi into a jail wall, and Police Lock-up.
outlay Rs: ——— 244

4 (6) Repairs to the Taluq Office at Tripatore
outlay ——— Rs: 1054

The following works were in progress:-

(1) Constructing Masonry compound wall on two sides of the Superintg: Engineers office Coimbatore, outlay Rs: 1080

(2) Constructing a Sub Registrar's

Registrar's office at Vaniambady; outlay Rs: 1884

(3) Improvements to the Quarters of the Assistant Superintendent of Police at Tripatore; outlay Rs 112.

45. A sum of Rs: 4443 was spent on repairs; the chief items being:-

(1) Repairing the Superintending and Executive Engineer's office, Coimbatore; outlay Rs 394

(2) Repairing the Sub-Collector's Bungalow, Erode; outlay Rs: 239

(3) Repairing the Bungalow of the Assistant Superintendent of Police Erode; outlay Rs: 269

(4) Repairing the Collector's Bungalow at Salem; outlay Rs: 115

(5) Repairing District Munsiff's

2436/102

Munsiff's Court at Tripatore; outlay ..... Rs: 607

(6) Repairing the late Divisional Office Building at Kuttampatte outlay —— Rs: 443

(7) Repairing the Dy. Tahsildar's Cutchery at Vaniambadi; outlay Rs: 930

(8) Repairing the Bungalow of the Assistant Superintendent of Police at Tripatore; outlay Rs: 405

46. West Coast. The following works in connection with the Law Courts at Calicut were completed during the year

(1) Passages to the District and Subcourts

(2) Providing planked screen and buttresses to the Vakeels' Chambers

(3) Constructing surface drains in the Compound

104

The grant of Rs: 13,350 for the year was utilized.

47- The outhouses of the Public office at Ponani were completed and wire fencing around the building commenced outlay during the year Rupees 4685 grant Rs: 5337.

48. The Sea Custom House, and store shed at Cochin were completed and handed over to the Revenue department. Total outlay Rs: 12368 against the estimate of Rs: 12680.

49. A wharf wall of planked timber piles for Sea Custom House Cochin was constructed and nearly completed at a cost of Rs:

243
1933

Rs: 4,695.

50. The Residence of the Assistant Superintendent of Police, Malapuram, was completed and handed over for occupation; some additional work done during the year consisted of

(1) Raising a new Carriage Road around the building

(2) Constructing a tiled Covered way from the Main building to the out houses.

(3) Opening drains, and Constructing Masonry Culverts.

(4) Providing matting for floor.

The expenditure during the year was Rs: 1645, total outlay from

105

-mencerry

from the commencement of the work, being Rs: 14,245 against an Estimate of Rs: 14,370.

57. A new subjudges and District Munsiffs court at Palghat was commenced, and the years grant Rs: 7,200 utilized in collecting materials. The excavation for foundation was completed, and laying Concrete in the foundation begun

58. The work in connection with the new Collectors Cutcherry at Calicut.—

—Sanctioned Estimate Rs: 187,970; was begun late in the year, and Rs: 8000 spent in collecting materials, and Rs 6,000

2436/109

Rs: 6000 in paying compensation; the paid by the Revenue Department up to March has not been communicated as yet; clearing of the site and collection of material could alone be undertaken.

59. A sum of Rs: 7,491 against a grant of Rs: 7,480 and estimate of Rs: 9,280 was expended in building 12 solitary cells for Lunatics and 4 condemned cells in the District jail Calicut. The former were completed and handed over to the Jail Department and the condemned cells were in progress.

60. The construction of a new sub Court at Tellicherry

Tellicherry was commenced towards the end of the year, and Rs: 2,000 spent in the collection of materials.

55. The additions and Improvements to the Office of the Superintendent of Police Mangalore, an Incomplete work of the previous year was finished.

Estimate ——— Rs: 10,545
Outlay ——— " 10,485

56. A Deputy Collectors Cutcherry at Pattur was nearly completed; the full grant of Rs: 9,000 being spent against an estimate of Rs: 10,960

57. A new Police Hospital at Mangalore was far advanced towards completion

Grant

2436/105

Grant Rs: 9,000 which was spent against an estimate of Rs: 11,745.

58. The following works were in progress.

(1) Constructing a Tahsildars office at Kundapur; Estimate Rs: 32,950; grant Rs: 4,000 outlay Rs: 4,357.

(2) Improvements to the second and third Blocks of the Collectors Cutchery Mangalore. Estimate Rs: 15,000; grant Rs: 2000; outlay Rs: 2658

(3) Improvements & additions to the District Munsiffs Court at Kasergode. Estimate Rs: 4,700; Grant Rs: 721 outlay Rs: 724-

(4) Sinking a well 45 feet deep in the Cemetery at

, at Mangalore. Estimate Rs: 390; outlay Rs: 250.

(5) Providing Iron gratings to the wells in the District Jail compound, Mangalore; Estimate Rs: 420; outlay Rs: 243.

(6) Constructing a SubRegistrar's office Tripayar; Estimate Rs: 3335; outlay Rs 2,893; almost finished.

(7) Constructing a subRegistrar's office at Chowghat; Estimate Rs: 3,240; outlay Rs: 2,815; nearly finished.

(8) Providing additional accommodation in the subRegistrar's office, Betut Pudiangody

Pudiangody; Estimate Rs: 1250; outlay Rs: 601- In progress.

(9) Constructing a compound wall to, and improving the church at Malapuram; Estimate Rs: 770; outlay Rs: 700.

(10) Supplying and fitting Iron safes to the Taluq Treasury at Palghat; Estimate Rs: 500; outlay Rs: 417.

(q) The following works were completed during the year:-

(1) Improvements and Additions to the Sub-Registrar's office, Pudiangody; Estimate Rs: 1010; outlay Rs: 980.

(2) A 3rd class Police station Trichy; Estimate Rs:

Rs: 1,240; outlay Rs: 1,248

(3) Providing a planked ceiling to Jail-wards of sub Magistrate's Cutcherry, Kuteparamba; Estimate Rs: 242; outlay Rs: 241.

(4) Supplying and fitting iron safes to the Taluq Treasury Cherakal; Estimate Rs: 500; outlay Rs: 439.

(5) Constructing a sub Registrar's office at Vittal; Estimate Rs: 3,240; outlay Rs: 3230.

(6) A wrought iron strong room for the Taluq Cutcherry Kasergode; Estimate Rs: 750; outlay Rs: 777.

(7)

15

242/07

(7) Constructing a Masonry Drain on the District Court House Hill at Mangalore. Estimate Rs: 320; outlay Rs: 321.

(8) Wire-fencing around the District Munsiff's Court, Puttur; Estimate Rs: 480; outlay Rs: 487.

62. A sum of Rs. 6110 was spent on repairs; the following being the principal works:-

(1) Repairs to the Church and belfry at Malapuram; Estimate Rs: 1,000; outlay Rs: 899.

(2) Repairs to St. Mary's Church, Calicut; Estimate Rs: 1315;

outlay

outlay Rs: 549.

(3) Repairs to roof and godown, and drains of new Customs house, Calicut; Estimate Rs: 1264; outlay Rs: 1147

(4) Repairs to the roof of Police superintendents office at Calicut; Estimate Rs: 667; outlay Rs: 787

(5) Repairing the Protective works of the pub Collectors Bungalow Tellicherry; Estimate Rs: 644; outlay Rs: 595

(6) Annual Repairs to St Johns Church Cannanore; Estimate Rs: 405; outlay Rs: 327.

(7) Annual repairs to supervisors and overseers Quarters Vayitri; Estimate Rs: 504; outlay Rs: 537.

16

2436/1908

IV. Provincial Communications.

41. Grant for original Works Rs: 35,000
Outlay during the year " 35145

This was all spent on for Improving the Road from Vayitri to Gudalur

The following are the principal works:-

Earth work..... Rs: 18000
Collection of metal " 5300
Cholai Bridge " 8500
Meppadi Rest House " 1100
Constructing culverts " 2285

42. Rs: 2820 were spent on Minor Works against an allotment of Rs: 3071; the chief items being:-

(1) Improving the approaches and widening the Road-way of Pykara Bridge; outlay Rs: 1038

(2) Improving the Rest House at Gudalur; outlay Rs: 415.

(3) Renewal of the mile and furlong stones on the Ootacamund and Mettupollium Road; outlay during the year Rs: 482; Total expenditure up to date Rs: 1575.

(4) Toll House on Kullar-Gudalur road; outlay Rs: 394

V. Provincial Miscellaneous Public Improvements.

Grant for Major Works Rs 39,145
Outlay during the year " 38,640
Rs. Completing the Supplementary Ootacamund North water supply scheme cost ..... Rs. 22,095 and the total expenditure on this estimate reached Rs. 1,65,107 at the close of the year, against an estimate Rs. 1,71,365.

Some fencing pillar fountains and a few minor items still remain to be done. Rs. 6,539 were spent in improvements to Hobart Park. A new road and grass-ride, levelling draining &c.; and the fencing & improvements to the Ootacamund Lake margin were completed at a total cost of Rs: 25,788 (Estimate Rs. 26,150); the years expenditure being Rs: 10,005 &c. A sum of Rs: 2542 was spent on minor works against an allotment of Rs: 2496. The principal

2436/109

17

principal items being:-

(1) Alterations to the Road near Adam Memorial fountain; outlay Rs: 780.

(2) Improvements to the road at Charing Cross; outlay Rs: 397.

(3) Erecting an arbour at Lady Cannings' Seat outlay Rs: 370.

(4) Fencing the trees planted on Mount Stuart; outlay Rs: 718

~~66.~~ Under Repairs Rs: 382 were spent in clearing weeds in Ootacamund Lake

—

VI. Local Incorporated

66. Coimbatore —

completing the Talavasal Bridge in the Ahtur Taluq

2432/40

Taluq, Salem District

Estimate Rs:---- 58,500

Grant for the year Rs:-- 10,000

Outlay Rs:------ 1,982

The grant was given in G.O. No: 1416 of 18th January 1889. The work was commenced in the following month. Concrete laid and 2¾ feet superstructure built to retaining walls above Bridge for spans 1 and 9; walls for protecting abutments in progress; also excavating foundations for retaining walls to spans 3 and 6. Approaches nearly completed.

A sum of Rs. 3000 value of teak wood supplied by the Forest Department will be adjusted in the supplemental

112

Supplemental Accounts for 1888-89 on receipt of advice from the Examiner of Public Works Accounts. Full amount of the grant could not be utilized owing to the late receipt of sanctions.

VII Local Executed

66 Westcoast - The lightning Conductor of the Light House at Mangalore was improved at a cost of Rs: 439, but some of the work remains to finish.

67 The wire fencing round the Light House at Kalaikut, and Improvements to the above stated were nearly completed. Estimate Rs. 1612. outlay

Outlay Rs: 1306.

68 The store Room at the Light House at Tellicherry, and the watch man's room at the Light House Cannanore were repaired at a cost of Rs: 93.

69 Rs: 495 were spent in Constructing a rough stone revetment between Groynes B and C near the Light House Cochin to protect the Coast Road.

VIII - Estate Works

70 Coimbatore - Ennamapatti Estimate. The following works were completed:-

(1) Constructing a sluice & surplus escape at the last end of Kavakarampa

Kavakaranpatte Tank;
outlay Rs. 241.

(2) Repairing the
Kavakaranpatty
Tank; outlay Rs. 108.

Asst. Engineer, 4th Circle.
28/5/89

Col: R.E.,
Supdg. Engineer, 4th Circle.

Encl. in a letter from the Secy. to Govt. P.W.D. 4th Circle No. 241/5048 dated 28/5/89

Memo for Press

Please send proof as early as convenient the portions under the VIII Major Heading should be printed separately so that other Circle Reports may come in their proper places under the same heading

F.B.
8/6/89

S.E.
S.G.

Comparative Statement showing the grant and outlay under all heads of Service for the official years 1887-88 and 1888-89.

24/26/1/V

Heads of Service		1887-88 Grant	1887-88 Outlay	1888-89 Grant	1888-89 Outlay
Civil Buildings	Original works	1,75,313	1,74,176	1,98,629	1,89,663
	Repairs	39,033	37,835	29,854	26,357
Communications	Original works	1,78,095	1,78,388	1,64,071	1,67,946
	Repairs	49,758	49,558	76,224	75,707
Mis: Pub: Impts	Original works	51,797	46,988	41,621	41,230
	Repairs	1,081	1,061	384	5,541
Military	Original works	48,252	48,118	47,541	47,940
	Repairs	64,205	29,112	53,046	54,213
Other Services.	Original works	2,139	2,451	969	992
	Repairs	1,559	1,307	2,091	2,169
Carried over		6,11,232	5,98,994	6,14,430	6,11,768

	Brought over	6,11,232	5,98,994	6,14,430	6,11,758
Mis: Pub: Impts	Original works	1,538	1,148	2,735	1,626
	Repairs	5,659	5,008	2,053	1,901
Mis: Pub: Impts	Original works	1,188	1,095	"	"
	Repairs	"	"	"	"
Communications	Original works	"	"	10,000	1,982
	Repairs	"	"	"	"
Estate works under the Administration of Court of Wards		2,126	158	2,938	428
Total		6,21,743	6,06,403	6,32,156	6,17,695

28/5/89

H. Marjoribanks Col. R.E.
Superintending Engineer
4th circle

P.G.J.

24/30
1/93

45

Enclo. to 2 in a letter
from the Supg. Engr
4 Circle dt 29/5/89
E.W.

Supglengrs Office 4th Circle
Camp Coonoor 28th May 1889

No 261
E.W.

24/26
1/19

From

Colonel H. M. Vibart, R.E.,
Superintg Engineer, Fourth Circle.

To

The Chief Engineer,
P. W. Department.

Sir,

Enclos

I have the honor to forward the Administration Report of the General Buildings and Roads Branch of the Fourth Circle for the year 1888-89 with a Comparative Statement showing the grant and outlay under all heads of service for the official years 1889-88, and 1888-89.

I have the honor to be,
Sir,
Your most obedt. servant.
H. M. Vibart Col RE
Supg. Engineer, 4th Circle.

H/6
D.D.V.

2436
105

Recd 4988

From

The Supg. Engr
4th Circle

Dated 28 May/89
Despd 1st June/89
Rep 3

Sp 24/
R.W.

Enc 2

Administration Report
of the General Buildings
and Roads Branch for
the year 1888/89
WRL Forwards the —

General Remarks and
Comparative State-
-ment sent to C.A.-G.
and
Progress of Works sent to
Press today - HB. 8/6/89

2497/116
No 269/E.W. Supg. Engineer's office 4th Circle,
Camp Coonoor 18th June 1889.

From,

Colonel H. M. Vibart R.E.,
Supg. Engineer, 4th Circle,

To,

The Chief Engineer,
P.W. Department.

Sir,

I have the honor to furnish the information called for in your memorandum No 2789C of 11th instant regarding estate works deviation.

(1) The grant for each estate is as follows:—

	Rs
Coonapatty Works	763
Establishment	175
Total	938
Yelagiri works	1,626
Establishment	374
Total	2,000

763 / 1626 / 2389
175 / 324 / 549 / 301

Grand Total Rs 2938

(2)

(2) The Expenditure against the grant is:-

	Rs
Erumapatty works	348
Establishment	80
Total Rs	428

(3) The short outlay was due to water in the tanks.

(4) The undermentioned works were carried out during the year

1. Constructing a sluice and surplus escape at the last end of Kava-Karampatty tank
   Outlay Rs 241
2. Repairing Kavakaram-patty tank _____ 108

(5) There is nothing to add in the shape of general remarks on the operations of the year.

I have the honor to be,
Sir
Your most obt. Servt,
Alexander Vibart Colonel R.E,
Supg. Engineer, 4th Circle.

2436
117

PWC No: 5208

From

The Supg. Engr
4th Circle

Dated 18th
Desptd 19th } June 1889.

No 269
E.W.

Estate Works.

Furnishes the information regarding expenditure &c for the compilation of Administration Report for 88/89 of—

E
21/6

No 2676. 5th Circle

Administration Report for Buildings, Roads for 1888-89.

24/7/89

General Remarks.

Colonel H. St. Vibart A.E. proceeded on furlough to Europe and left the Circle on 29 October 1888. Colonel Ross Thompstone was in charge from that date and handed over charge on 7 November 1888 to Colonel W.H. Burton R.E. who has since held charge of the Circle.

The Ellsoor Tank at Bangalore is as it was last year but the water is less in quantity and more impure. The Municipal Commissioners of Civil and Military station of Bangalore have just commenced to remove silt and deepen the shallow parts of the bed of the tank on the South East. The water in the tank is now 7'-9 1/2" below Kody.

× on 30th April 1889 8'-3 1/2" on 30 June 1889

Same time last year it was 5'-5 3/8" below Kody.

8/7/89

The water now in the tank will last probably up to July, but if not supplemented by copious rains in the course of the year, a water famine will be inevitable.

No serious damage occurred to any of the buildings in the circle except at Madras in the Presidency Division where many of the public buildings suffered more or less from the effects of the cyclone of 31st October 1888 specially St Andrews Kirk, in the Chingleput Division a block of stables at the Mount was blown over.

In the Presidency Division there have been changes in the price of materials at Madras, principally bricks in the Monsoon and it was found necessary to revise rates for brick work at Madras in some cases.

In the North Arcot Division there was generally some difficulty in getting labor owing to prevalance of cholera and to construction of new line of Railway in the Division. But no alteration has been made in the rates

In the Chingleput and South Arcot Divisions there has been no change in the rates.

The Service Books of all the employes in the Circle have been written up to date and the orders of Government as to correct maintenance of these records and their verification have been and are being attended to.

The following shows the progress made in verification up to end of 1888/89.

Name of office	No of Service Books	No verified up to end of year.
Supdg: Engineer	18	8
Presy: Division	52	37
North Arcot —do—	92	8
Chingleput —do—	82	41
South Arcot —do—	136	64
Genl Supdt's Stores	21	20
do —do Workshops	23	21.

New works and repairs to the Pr. Stores and Workshops build-
ings, hitherto carried out by the Executive Engineer, Presidency Division are from this year to be executed by the General

Supdt

Superintendent Wx Stores and Workshops.

In the Presidency Division the rainfall of the year in Bangalore was less than that of the previous year. Upto end of December 1888, the rainfall of the Calendar year was 27.98 inches which is less than the fall of the previous year by nearly 5½ inches.

The highest rainfall occurred in 1874 when 45.603 inches was recorded. The heaviest fall in 24 hours during the year was 3.030 inches which fell on 1st November 1888. the total fall of the month being 6.600 inches.

From January to 31st March 1889, the rainfall amounted to 0.66 inches.

The average rainfall in the North Arcot Division was 40.89 against 52.46 in the previous year. The rains set in in May and the tanks received a good supply throughout the season.

The

The rainfall in the Chingleput Division during the year was comparatively heavy and during the cyclone of the 31st October 1888 the rain gauge at the Mount registered 7.50 inches, at Red Hills 6.10, at Koratur 5.9, at Tambaram 5.30 and at Chingleput 5.00. The total rainfall for the year 1888/89 was registered at the Mount to be 67.04 inches against 53.73 inches in the previous year.

In the South Arcot Division the rainfall during the year was 44.06 inches against 65.06 inches in the previous year.

The following is a statement of the grant and expenditure of the year.

Division	Service and departmental heads	Grant	Final grant at the end of the year	Charged	Expenditure compared with final grant. More	Less
Presidency Division	Imperial Military Original Works	96416	81781	78109	-	3672.
	Repairs	165000	165000	158076	-	6923
	Imperial Other Services Original Works total	1180	1180	1271	91	-
		1000	1000	151	-	849
	Repairs { Postal	387	387	307	-	80
	Telegraph					

Division	Service and Departmental heads.	Budget Grant	Final grant at the end of year	Outlay	Expenditure compared with modifications More	Expenditure compared with modifications Less
Bangalore Cantonment Division	**Provincial**					
	Original Works					
	Civil Buildings	69752	51747	34352	-	17395
	Communications	10694	6242	6252	10	-
	Miscellaneous Pub Improvements	6000	6000	3334	-	2666
	Repairs					
	Civil Buildings	60000	60667	37487	-	23180
	Communications	13500	13500	13501	1	-
	Miscellaneous Pub Improvements	2000	2000	2088	88	-
	Excluded Local Funds	-	-	1223	1223	-
	Imperial Military					
	Original Works	6520	70	73	3	-
	Repairs	2000	2000	2014	14	-
	Imperial Other Services					
	Postal					
	Original Works	-	38	29	-	1
	Repairs	100	100	94	-	6
South East Division	**Provincial**					
	Original Works					
	Civil Buildings	8619	8483	8264	-	219
	Repairs					
	Civil Buildings	1000	1000	981	-	19
	Imperial Military					
	Original Works	21923	26639	28470	1853	-
	Repairs	25000	30000	30234	234	-
	Imperial Other Services					
	Postal Repairs	-	-	67	-	-
	Provincial					
	Original Works					
	Civil Buildings	8989	7189	6953	-	236
	Miscellaneous Pub. Improvements	2718	2718	2537	-	181
	Repairs					
	Civil Buildings	10400	11626	11345	-	281
Bellary Sub-Division	**Excluded Local Funds**					
	Original Works					
	Misc: Public Improvements	-	4716	5006	290	-

Division	Service and departmental heads. 24/30/01	Budget grant	Final grant at the end of year	Outlay	Expenditure compared with modifications More	Expenditure compared with modifications Less
South West Division	**Imperial Military**					
	Repairs	180	180	180	-	-
	Imperial Other Services					
	Postal	-	81	80	-	1
	Original Works Telegraph	-	50	45	-	5
	Repairs Postal	100	100	124	24	-
	Provincial					
	Original Works					
	Civil Buildings	4480	1910	822	-	1088
	Communications	40000	40000	26967	-	13033
	Misc: Public Improvements	3818	3818	2307	-	1511
	Repairs					
	Civil Buildings	1200	1200	1140	-	60
	Incorporated Local Funds					
	Repairs					
	Communications	2640	1376	2702	-	3874
West Coast Division	**Provincial**					
	Original Works					
	Civil Buildings	480	2375	1784	-	591
	Repairs					
	Civil Buildings	450	2250	1846	-	405
Ft. Canara Division	**Provincial**					
	Original Works					
	Civil Buildings	-	5698	5466	-	232
	Repairs					
	Civil Buildings	3000	2500	1820	-	680

The short outlay in the Presidency Division under original Works Military, is attributable partly to work of addition to Place of Arms at Bangalore

Bangalore having had to be stopped, owing to the Military Authorities desiring a deviation in the sanctioned arrangement, and partly to Bills, for some of the Minor New works, carried out, not having been ready in time for payment to this latter cause also is due the short outlay of Rs 6925 under Military Repairs.

Under Civil Buildings Original Works, the large unexpended balance from the grant is owing to bills for works at the —.

1 Training School for Mistresses
2 General Hospital operation Room
3 Lunatic Asylum.
4 Paper Currency Office Fort St George
5 and Civil Orphan Asylums — having been ready too late in March to admit of payment being made.

From the grant for Repairs Civil Buildings and for Original Works under Miscellaneous Public Improvements owing to the Bills not being ready in time large balances have been left unspent.

In South Arcot under Provincial Civil Buildings Original Works.

Rs 1088

Rs 1088 remained unspent, partly owing to the Police Station at Tindivanam not being contracted for completed during the year and partly to iron necessary for the District Court, not having been supplied from the Workshops.

24/1923

The short outlay of Rs 3033, under Provincial Communication Original Works, occurred in the Pennair and 5 additional Bridges owing partly to cost of 840 rails purchased from the South India Railway not having been adjusted for want of advice from the Examiner and also partly to cost of machinery obtained from the Ordnance Stores for the works and charged thereto having subsequently had to be written back, as the cost of the machinery had been met from the Ordnance Stores funds.

The short outlay of Rs 1511 under Miscellaneous Public Improvements Original Works is due to adjustments not being made owing to want of advice from the Examiner of the amount of compensation paid by the Collector for land taken up for the

Gaddalam

Saddilam flood embankment.

Under Repairs Communications the unspent balance of Rs 3674 shewn is the amount provided for the Bridge over the Shahatope Anicut. Portion of the expenditure charged to Irrigation will be written back in the Supplemental accounts for March 1889 and the unspent balance will to some extent if not altogether disappear.

Imperial
Military Buildings.

Madras

The conversion of Racquet Court in Fort St. George into a Covered Gymnasium, an incomplete work of previous years was carried out to completion at a total cost of Rs 11760.

The Sergeants Mess and adjacent Godowns in Fort St. George were converted into a Latrine and Lavatory for Single men's Barracks at a total cost of Rs 3480/- on the Estimate of Rs 3820.

Land and buildings at the Old Veperry Lines, Madras were purchased at an outlay of Rs 41625 for a Coal Store &c ~~under G.O. No. 663 K dated 24th February 1888.~~

A sum of Rs 2176 ~~0-0~~ was paid on account of work done this year on Improvements to Water Supply of Fort St. George which had been nearly completed in 1886-87. The total cost on the works ~~has been~~ was Rs 8625.

Bangalore.

Saddle and Store Room for British Cavalry at Agram, Bangalore were built at a total cost of Rs 4373 on an Estimate of Rs 4158.

Public Buildings for a Regiment of a Native Infantry at the Arab Lines were completed, ~~last year~~ But the extension of the Place of Arms &c ~~lately sanctioned~~ could not be completed owing to a change in design of building required by the Military Department late in the year after sanction was accorded by Government.

The

The outlay during the year was Rs 2265 and the total outlay to end of the year has been Rs 24168 on the Estimate of Rs 30346.

Station Butcher's Quarters commenced in the previous year were finished at a cost of Rs 3886 against an Estimate of Rs 3860.

An expenditure of Rs 1000 was incurred on the investigation of the Bangalore Water Supply Scheme out of Rs 2000/- assigned for it.

European guard Room, Fire Engine Shed and Latrine at the Alipuram Entrenchment were commenced and completed in the year. The total outlay has been was Rs 6005 on the Estimate of Rs 5333.

Twenty nine Minor New works at the Presidency and thirty at Bangalore were commenced and completed during the year at a cost of Rs 13213.

One Hundred and ninety six Repair Works at the Presidency & one hundred and seventy two at Bangalore were carried out during the year.

Payments

Payments were made to the Madras Municipality of Rs 14199. on account of house, water and lighting taxes on Government Military Building outside the Fort and of Rs 6000 on account of maintenance and repairs of the esplanade and Fort Beach Roads.

At Bangalore Rs 1200 & 6300 were paid to the Municipality of the civil and Military Station of Bangalore for conservancy of the main sewer and maintenance repairs to Military Roads respectively.

The total outlay under Repairs including Barrack Masters' expenditure on petty repairs, Compensation for quarters and payments made to the Municipalities on account of taxes and maintenance grants, has been was Rupees 112,213 at the Presidency and Rupees 4,582 at Bangalore.

The most important of the repair works undertaken during the year were—

Madras

Madras.

Repairing and lime washing the E.I. Barracks Fort St George Estimate Rs 5534. Outlay Rs 3299.

Painting doors and windows of the E.I. Barracks Fort St George Estimate Rs 2840, outlay Rs 2239.

Thorough repairs to the officers Mess House Fort St. George Estimate Rs 4946. outlay Rs 4966.

Renewing the roof of Hospital Peramboor Native Infantry Lines Estimate Rs 2882 Outlay Rs 3196.

Repairing walls and floors and painting doors and windows of the office of the Inspector General of Ordnance Fort St George, Estimate Rs 2594. Outlay Rs 2309.

Bangalore.

Whitewashing all the buildings of Parade Barracks Estimate Rs 2990 Outlay Rs 2840

Whitewashing all the buildings of Agram Cavalry Barracks Estimate Rs 2500 Outlay Rs 2247.

Substituting Mangalore tiled for ordinary tiled roofing to the Agram Cavalry Stables Estimate 5073. Outlay Rs 3040, ~~but not yet completed~~ ~~½ of these stables will have to be retiled.~~

The construction of new Barracks for 200 men at Poonamallee for which an estimate of Rs 166,816 was sanctioned in G.O. No 165 ~~dated~~ 1st February 1879 and for which foundations had been partially laid, ~~the work was stopped in 1878~~ was resumed; ~~this year~~ out of an allotment of Rs 20000 an outlay of Rs 20017 was incurred. The main walls have been raised to base ~~were~~ ~~raised~~ to level 2690 cft of cut stone 272 Loads of Platform bricks and 2875 cft of timber ~~have been~~ were collected at site.

Improvements to the Barrel Racks Reserve Powder Magazine Mount commenced in 1887/88 were completed during the year

Eighteen Minor New Works were completed at a cost of Rs 6582.

Repairs to 25 buildings and several minor repairs costing less than Rs 500 each were carried out at

out at a total expenditure of Rs 2014 and the roads in the Cantonments of Mount, Kallavaram and Poonamallee were maintained at an outlay of Rs 3730. The total expenditure under repairs including Barrack Masters Petty Repairs, Compensation for quarters &c was Rs 30234.

The more important of the repairs were

Renewing the Lightning Conductor of the Reserve Powder Magazine down to earth plate at Mount Estimate Rs 1400 outlay Rs 1496.

Repairing white & color washing the Ordnance Depot & its out-houses Mount Estimate Rs 1855: outlay Rs 1314

Repairing white & color washing West Barracks & out houses of 2/1st R.A. Mount Estimate Rs 3880 & outlay Rs 3873.

Repairing white & color washing 16 Family Quarters with outhouses of 2/1st R.A. Mount Estimate Rs 1586 outlay Rs 1575.

Repairing white & color washing R.A. Mess Mount. Estimate Rs 1630 outlay 1571.

5

Repairing white & color washing the Station Hospital Mount. Estimate Rs 1660. Outlay Rs 1680.

2436/126

North Arcot Division.

No Major New Works were carried out in the year.

The only Minor New Works was the supply of Ammunition Boxes, for the Native Infantry Regiment at Vellore on which the sum of Rs 73 was spent.

5 V

A sum of Rs 2014 was spent under Repairs including the usual annual contributions of Rs 1000 paid to the Municipality on account of maintenance of Vellore Cantonment Roads.

South Arcot Division.

Rupees 180 were spent on account of rent of quarters of the Serjeant Instructor of the South Indian Railway Volunteer Rifle Corps

Imperial & Other Services.

Presidency Division.

No works of any importance was carried out in the Presidency Division the few small works, carried out, were —

10 V

The completion at a total cost of Rs 1180 of Improvements to the Post Office at Mysore commenced last year. The years outlay has been

Rs

1871

Rs 246

Improvements to the Mylapore Post Office at Madras commenced and completed in the year at an outlay of Rs 759 on the estimate of Rs 773.

Improvements to the Post office at Bangalore commenced and completed in the year at any outlay of Rs 267 on the Estimate of Rs 264

The following repairs were carried out:-

Stopping leaks in roof of Post Office at Bangalore Estimate Rs 162 Outlay Rs 153

General repairs to the Telegraph Master's Quarters at the old Telegraph Office, Bangalore, Estimate Rs 190, Outlay Rs 194.

Petty repairs to Telegraph office in Fort St. George. Estimate Rs 160 Outlay Rs 86.

North Arcot

Under Minor New Works in North Arcot a sum of Rs 29 was spent in providing a sky light for the Post and Telegraph office at Chittur.

Under Repairs Rs 94 were expended in repairing the Post Office at Ambur and the combined Post and Telegraph office at Vellore.

Bhungalpur

A sum of Rs 67 was spent under Postal Repairs in the Bhungalpur Division in repairing the Post Office at Poodoovoil.

South Arcot

In South Arcot Division under Minor New Works Postal, a verandah to the Post Office Building at Tindivanam was built and bars were provided for the front door of the building at a cost of Rs 64 and 17 respectively. Repairs to the Post Office at Mayakuppam were carried out at a cost of Rs 124.

Under Minor New Works Telegraph the iron rails of the old record room at the Post Office at Mayakuppam were removed and wooden rails were provided for the Telegraph Office in same building at an outlay of Rs 45.

Provincial

Provincial

Civil Buildings.

Presidency & Bangalore

City Reserve Police Lines at Pudupett commenced in 1886-87 were finally completed and handed over to the Police Department on the 1st April 1889. The total outlay has been Rs 31336 against an Estimate of Rs 32725.

Additions and Improvements to the Presidency Training School for Mistresses was commenced during the year, but the progress of the work was unsatisfactory: owing to the failure of Executive Engineer in arranging for the work being done by contract, or otherwise. The outlay Rs 4310 and the grant Rs 1,000.

New operation Room at the General Hospital Madras was commenced during the year, but owing to Executive Engineer's making no arrangement for good tracks the progress was unsatisfactory

6

2420/128

unsatisfactory. The years outlay was only Rs 2535/- against the Estimate Rs 11,570 and grant of Rs 7000.

The conversion of 2 of the work sheds at the Lunatic Asylum Madras into Single rooms was commenced during the year and an outlay of Rs 2820 was incurred on the Estimate of Rs 7100 out of Rs 7000.

The construction of quarters for Assistant Matron and for the 2d class European Servants at the Lunatic Asylum Madras was commenced and Rs 1196 was spent on the Estimate and grant of Rs 5000.

The purchase of the buildings Nos 20 and 21 at the Civil Orphan Asylum was effected during the year for a sum of Rs 7000 as per G.O. No 3817 dated 4 December 1888 but conveyance deed is not yet Signed.

37 Minor New works were carried out at a cost of Rs 9504

113 Repair works at Madras & 16 in Bangalore were carried out and a sum of Rs 2829 was spent

on

on account of furniture for Government Houses at Madras, Guindy and Ootacamund.

None of the repair works at Bangalore were of much importance.

The following were the principal repair works carried out in Madras.

Thorough repairs to Government House Madras and subsidiary building. Estimate Rs 7300. Expenditure Rs 6395.

Plastering with cement the outside of the Government Secretariat Office Fort St George, an incomplete work of last year. Estimate Rs 13500, the year's outlay Rs 7362.

General repairs to the office of the Inspector General of Police Estimate Rs 1410 outlay Rs 978.

Thorough repairs to Presidency Magistrate's Court Estimate Rs 1123 outlay Rs 1014.

General repairs to P.W. Stores and Workshops an incomplete work of last year Estimate Rs 9392 the year's outlay Rs 4203.

Repairing Punkahs &c at St Mathias Church Vepery. Estimate Rs

North Arcot 24/29

Condemned cells, wards for male and female lunatics and construction of 3 gallows at the central jail Vellore were commenced and completed in the year. The total outlay was Rs 3983 on Estimate Rs 4188.

16 V

Seven Minor New Works were in progress of which six were completed. The years expenditure Rs 4257

Nine Repair Works were in progress of which five were completed. The year's outlay Rs 981.

Cuddapah Improvements to Laboratory of the Madras Agricultural College were in progress on the revised estimate Rs 9920 and an outlay of Rs 2324 was incurred in the year. Work in lower storey completed and also Terrace roof of verandah all round, except portion of stair case.

Additional accommodation and improvements to Teachers College at Saidapett were commenced on an Estimate of Rs 14460 and an outlay of Rs 2999 was incurred in the year. Work on additions was completed up to base-ment level.

(F3) V

Waiting

Waiting and Coffee Rooms for Students of the Agricultural College were completed at a total cost of Rs 3466 on the Estimate of Rs 3500 ~~the years outlay has been Rs 900~~

Six Minor New Works were carried out at a total cost of Rs 731.

The buildings and roads at Government Stores Guindy Park the Deputy Collectors' office at Guindy and other buildings, Churches &c ~~have been~~ were repaired at a total outlay of Rs 11345.

On the Sub Registrar's Office at Vellupuram completed last year a final payment of Rs 61 was made this year. South Arcot

Three Minor New Works were in progress one of which an uncomplete work of last year was completed. The total outlay incurred ~~has been~~ was Rs 761.

Repairs were carried out at an outlay of Rs 1140 to buildings for which rent is collected by the P.W. department besides other petty repairs.

In the P.W. Stores and Work Sh. Stores shops, under original works the Workshops extension

7

2436/130

Extension of Smiths shop, building and improving the drainage of the Store yard, reroofing the stable and outhouses and construction of two Fire Engine sheds, were commenced and the two last mentioned works ~~have been~~ were completed.

16 J

Under Repairs, repairs to carpenters shed and to the roofs of the Store rooms which latter had been just renewed when they were damaged by the storm of last October, were commenced, and the latter work completed besides a few other petty Repairs

Provincial Communications.

Presidency

On the widening of the Elephant Gate Bridge which was almost completed last year, an outlay of Rs 5252 was incurred this year and the work fully completed at a total cost of Rs 14788 against the Estimate of Rs 20200.

21 J

Under Repairs a sum of Rs 9058 was paid to the Madras Municipality for the maintenance of the roads leading from the Fort to the Mount and Vepanamallee. The Mount and Rs 3381 and Rs 1062 were also paid to.

1738

to the Municipality for the maintenance of bridges over the Coum and the Buckingham Canal.

South Arcot

~~Under Original works commencing~~ the construction of a Masonry Bridge across the Poniar & an iron Girder Bridge on Masonry abutments and piers, across the Gaddilam, in place of Bridges which were destroyed in the Monsoon floods of 1884 were in progress during the year.

21

Work on the Gaddilam Bridge could not be commenced till late in the year owing to some unavoidable delay in fixing upon a site for it. The progress made on the Bridge ~~has been~~ was:—

No 2 Pier from South abutment	Wells built 12 ft and sunk 4 feet.
No 3 Pier	Wells built 12 feet and sunk 7 ft average
No 4 "	Wells built 12 feet and 8 feet sunk
No 5 "	Wells built 16 feet and 9 ft sunk
No 6 "	Wells built 6 feet
No 12 "	Wells built 12 feet and sunk 6 feet.

On

24/26/37

On the North and South Abutments and the remaining piers, no work ~~has~~ was done.

25

On the Poniar Bridge the South abutment ~~has been~~ was raised 3' 1/2" high above floor level. Nos 1 and 2 Piers from that ~~and has been~~ were raised 4 1/2" above floor level; ~~and~~ the floor of No 1 archway was completed and that of No 2 archway in progress. & all the remaining Piers and North Abutment, wells have been built and sunk to various depths and the construction of retaining walls and flooring of the wells are in various stages of advancement.

21

Provincials.

Miscellaneous Public Improvements.

Presidency

~~In the Presidency division under original works~~ The construction of self acting shutters under three bridges on the Coum river was in progress and Rs 3031 were spent on the work during the year. Four earthen bunds were put up across the same river at a cost of Rs 303 in order to cover

25

1374

1885

the

the otherwise insanitary bed with water. Under repairs Rs 785 were spent on the conservancy of the Coonoor and Rs 685 in opening and closing the bar, and four other petty works were carried out at a cost of Rs 668.

~~Under Original Works~~

~~In the Chingleput Division~~ The artesian boring in the Korkabayar basin was continued and the depth of 420 feet was reached but without any satisfactory result. Arrangements have been made to carry the boring still deeper viz. to a depth of 450 feet. The depth bored during the year was 49 feet. The years outlay has been Rs 2537 and the outlay to end of year Rs 8584.

Chingleput

~~In South Arcot Division~~ An expenditure of Rs 2307 was incurred under Original Works, in payment of compensation for lands taken up for the embankment of the Gaddilam River for the protection of the Town of Tirupapuliyur from floods which had been completed last year.

South Arcot

Special

24/2/32

Special

Civil Estimates.

33

Preliminary

~~The~~ Repairs to the Madras Light House ~~commenced last year~~ were ~~carried out to~~ completed, at an outlay of Rs. 1028 ~~on the Estimate of Rs 1020~~.

Chingleput.

The construction of a light House at the Seven Pagodas, commenced in 1851 was completed during the year with the exception of a well for the Superintendents Quarters and Lightning Conductor for the Light House. The years outlay has been Rs 5006 and the total outlay to end of year Rs 11952. the Estimate amount being Rs 11952.

Communications.

South Arcot

Under Repairs in South Arcot the roads along Cuddalore bank, and the Khan Sahibs Canal bank and the roads along Veranam Tank Bank, the Perumal Tank bank and the Perumukkal Tank bank were repaired at an outlay of Rs 2702.

Contributions.

Repairs were carried out to St. Mary's

27

to the Municipality for the maintenance of bridges over the Coum and the Buckingham Canal.

~~Under Original Works Commencement at South Arcot Division~~ South Arcot

The construction of a Masonry Bridge across the Coumiar & an iron Girder Bridge on Masonry abutments and piers, across the Gaddilam, in place of Bridges which were destroyed in the Monsoon floods of 1884 were in progress during the year.

21

Work on the Gaddilam Bridge could not be commenced till late in the year owing to considerable delay in fixing upon a site for it. The progress made on the Bridge ~~has been~~ was:-

No 2 Pier from South abutment - Wells built 12 ft and sunk 4 feet.

No 3 Pier - Wells built 12 feet and sunk 7 ft average

No 4 " - Wells built 12 feet and 8 feet sunk

No 5 " - Wells built 16 feet and 9 ft sunk

No 6 " - Wells built 6 feet

No 12 " - Wells built 12 feet and sunk 6 feet.

On the North and South Abutments and the remaining piers, no work was done.

24/36/137

25

On the Coumiar Bridge the South abutment has been raised 5' 1/2" high above floor level. Nos 1 and 2 Piers from that and has been raised 4 1/2' above floor level; and the floor of No 1 archway is completed and that of No 2 archway in progress. Of all the remaining Piers and North Abutment, 9 wells have been built and sunk to various depths and the construction of retaining walls and floors and hearting of the wells are in various stages of satisfactory progress.

21

Provincials.

Miscellaneous Public Improvements.

Presidency

~~In the Provincial Division under Original Works~~ The construction of self acting shutters under three bridges on the Coum river was in progress and Rs 3031 were spent on the work during the year. Four earthen bunds were put up across the same river at a cost of Rs 303 in order to cover

25

134

1885

the

Mary's School in Fort St George at an outlay of Rs 954 from a contribution of Rs 1044 received for the work.

Four petty works were carried out at the Military Female Orphan Asylum from funds provided by the Directors.

Repairs and additions to the Civil Orphan Asylum building Madras were in progress and Rs 4770 were spent from grant provided by Government.

Colonel Clarke R.E. assumed charge of the Pr. Stores and Works Shops on the 28th May 888 from Mr. Joyce and has since that date remained in charge of the Pr. Stores and Works Shops.

Pr. Stores

The whole stock of the Pr. Stores was checked by him during the year & found to agree with the Books.

The closing balance of stock shewn in the preceding years report as Rupees 175494-9-7 having been subsequently altered by adjustments made in the Supplemental accounts for March 1888, the year 1888/89 was opened with a balance of Rupees 175496-12-7.

The receipts of stores during the year were-

From London	Rs 32849-11-5	
Pr. Divisions	" 71-9-6	
Precy: Works Shops	" 1714-5-6	36635-10-5
		212132-7-"

Issues during the year were-

To Pr. Division		29658-2-6
Pr. Works Shops		23166-13-6
Govindaswaram Works Shops		5592-"-2
Civil Department		40-7-8
Military Department		259-15-4
State Railways		462-12-2
Guaranteed Railways		2192-10-2
Mysore State -do-		1487-9-7
Madras Harbour Works		767-12-9
Private sales		1255-3-1
Loss by sale of Surplus stores	968-2-8	66041-9-9
		146290-13-3

And the year closed with a Balance on 31st March 1889 of Rs being Rs 29205 less than the opening balance.

There were 27 consignments of stores received from England and there were also 27 Shipments by steamers to the different northern ports.

Hot.

Not much work was done for the State Railway department the Bellary-Kistna and Cuddapah-Nellore State Railways having been transferred during the year to the Southern Mahratta Railway Company but some small consignments of stores were received and disposed of which gave employment to the Port Store Keepers department until the end of December.

Port Store Keepers department

There were 12 consignments of stores received viz:-

6 from London
5 from Calcutta
1 from Rangoon.

and there were two shipments, both to Calcutta.

P.W. Workshops.

A report on the Administrative accounts of the Workshops is to be submitted to the Government by the Examiner.

The following statement shows the work done in the shops during the year was compared with the previous year.

24/36/134

	1888/89			1887/88			More than 1887/88			Less than 1887/88.		
Work done for P.W. Department	22174	3	7	79312	9	8	2861	9	11	-	-	-
Work done for other Departments	31212	-	7	64281	4	10	-	-	-	33069	4	3
Work done for private parties	4244	6	10	6153	8	8	-	-	-	1909	1	5
Total	117630	11	-	149747	6	9	2861	9	11	32076	11	9

The Establishment charges amounts to Rs 20573-8-5 as against Rs 13788-12-4 the charges of preceding year.

The decrease in the amount of work done during the year, for other departments may be partly accounted for by the fact that the greater amount of work in the preceding year was due to the execution of large orders from the Salt and Commissariat department for weighing scales troughs and other articles, orders such as cannot be expected every year.

The falling off in the amount of work done for private parties cannot be accounted for unless it is that the Iron Manufactories started

started by Native Firms, have been resorted to.

The value of Machinery in the shops at the beginning of the year was Rs 107945. After deducting the percentage of 4½ Rs 4331-12-10 on account of depreciation and adding certain receipts to £ 294-14-11 during the year the balance at end of the year was Rs 107908-8-6. The balance of value of stock on the 31st March 1889. stood at Rs 17258-0-- including timber valued at Rs 9062-8-- or Rupees 7767-9-- less than the stock balance at the close of March 1888, the difference is due to the necessity for selling a large quantity of wood by public auction as being useless.

The principal works done in the workshops during the year were

In the Mechanical Branch

Supply of Iron Works Screw gear for 12 shutters for Tunnevelly Div. P.W.D.

Supply

Supply of Screw gearing Shutters. 19 for

Tunnevelly Div. P.W.D.

2437/25 " 5 Shutters with Screw gearing for Barur Amcut (Coimbatore)

" " 3 Shutters for Pakaravara Head Channel (Nellore).

" " 1-00- for Cuddapah Divisional Officer P.W.D.

" " 2-00- for Madura Divisional Officer

" " Iron works for Tanjore Divisional Officer

" " -00- for 4 Pairs of Lock gate Kurnool Canal Div.

" " Several sets of cast iron pipe sluices for Coimbatore Div. P.W.D.

" " 5 Shutters with Screw gearing for Coimbatore Div. P.W.D.

" " Iron works and screw gear for 1 shutter for Kurnool Div.

" " 1 large Iron Record Rack for Forest Branch of Revenue Board office Madras.

" " Cast iron pipes & iron works for Nellore Dt. Office.

" " 3 Iron falling shutters for the Cheyaur Amcut North Arcot Division P.W.D.

" " 1 four wheeled large cart for Vizagapatam P.W.D.

" " Logs of wood (teak) for the Nellore P.W.D.

" " 1 Shutters with screwgearing &c together with iron works and screw gear for South Arcot Division P.W.D.

149 137

Supply

Supply of 8 Screw gearing shutters for
"No 1 Periyaur Div" Madura Dt.
" " 400 running feet of copper cable
wire 7 strands for Mangalore Light
House thro' West coast Dt Officer D.T.K.
" " 6 New platform carts to P. W.
Stores Department.
" " 2 outfall shutters for Nellore Dt
Officer.
" " 4 sets of Boring Tools for Dt.
Workshops
" " 3 wooden cash chests large
stock bound with iron (with
chains) for "Periyaur Div" D.T.K.
" " 3 "Moneyjo" Lurki screens patent
" " 3 Screw gearing shutters com-
plete for the Kurnool D.T.K.
" " Extensive wood work for new
Taluq Cutcherry at Cuddapah
(thro' Executive Engineer)
" " Numerous 2700 Tools for the
"No 1 Periyar Project" works Madura
" " wood work and materials for
the Stabling &c of the Dt. Workshops.
" " 4 Screw gearing shutter. for
Negapatam D.T.K.
" " 75' falling shutters for 3 Bridges
across the Coom River Madras
thro' Ex: Engineer Irrig: Division
" " 1 Screw gearing shutter for
"Varoukal channel" Chingleput
D.T.K.
" " Extensive wood work for Christ
Church Cuddapah

Supply

10

Supply of 80 Round railings with stands
" 2436/136 " cards for "St George's Cathedral"
compound railings.
" " Wood works for new Divisional
Office D.T.K. Cuddapah.
" " 352 feet copper wire for "Seven
Pagodahs Light"
" " 8 iron falling shutters for
"grand anicut" at Tanjore
" " 8 Chinese Pumps for Tanjore
Divisional Officer.
" " 12 shutters with screwgearing
for "No 2 Periyaur Division
" " 52 cast iron ornamental
columns for the Consulting
Architect Division.
" " 24 wooden doors for residence
for Collector of Anantapur
thro' D.T.K. Divisional Officer Bellary
" " 34 windows for — do — do — do.
" " a 3 cwt beam scales with
a set of cast iron large
weights (Zolais) for Commis-
sariat Department
" " 4 Sets of Well Boring Tools
for the Ordnance Office
Madras Fort St George
" " 4 Steam jackets - improve-
ments made to for Madras
Medical Stores.
" " 4 large Black Boards for the
Madras College of Engineering
" 12 Cast iron large 4ton weights
" for Nellore D.T.K.
" 12 Cedar wood boxes for Govt:
" in the D.T.K

Supply

Supply of 7 wrought iron wall
Brackets for Govt. —
Telegraph Stores.
Testing 2 Boilers (old) & setting a
New Boiler in the Madras
Govt Bakery at Tenampett.
Repairs (extensive) to 12 Grangertan
Scales on iron stands for
Salt Department.
Supply of Sundry iron copper & wooden
articles required for re-
newing the Scotch Kirk
Steeple work damaged
by Cyclone of 1888, thro' Executive
Engineer Presidency Division
Setting up Engine for Meyr's Machines.
Repairs to a 12 Horse Power Engine
and Boiler for Govt. Stores.
Connecting punkahs with the main
rope for the "Hobart" & "Argyle"
Wards of the Madras General
Hospital.
— do — punkahs with the Apothecaries'
Room of the Madras General
Hospital.
— do — punkahs with the Senior Medi-
cal Officers' Quarters of the
Madras General Hospital.
Setting up the Ten ton crane off H. Govt
at the Buckingham Canal Wharf
Madras Basin by order of Govern-
ment in the D.P.W.
Supply of numerous Iron works and
turning, planning &c to several
Iron works supplied by Mr. H.E.
Barham Engineer Madras for
Sugar Cane Mills.

Reside

Besides supply of wooden (Sealwood &c)
Boxes for packing Tools instruments
Iron articles &c for D.P.W. Officers, and
Sundry other repairs of scales large
for the general public

In the Instrument Branch

Supply of General Gun metal Chain
7 pacers { 3 to Public department
5 to P.W. Department.
with stands and staves —
complete.
" 144 Brass Scale with wooden
handles
" 50 Brass Rein Badges of kinds for Public "
" 31 " " " " for P.W. Dept
" 19 Silver Badges for Revenue.
" 26 Letter weighing Scales with weights
Brass 1/4 to 20 and 10 Tolahs.
" 2 Copper Pan Scales with brass
chains and iron Beam on iron
tripods for weighing 1000 lbs at a
time.
" 792 Gunters measuring chains
with arrows for the forest Depts
Collectors of Ipecacuanha &c &c
(Galvanized).
" 5 Brass Scales with weights in
Boxes to weigh upto 50 lbs.
" 5 German Silver minimum Scales
" 50 Sets of large Annular Iron
weights for Commissariat Stores
" 80 Drawing Boards for Engineering
College 38 Sets 7 Sqres and 60
Sets 5 Sqres.
" 3 Sets of Brass Tolahs weights
5·0 - 100 & 5·00.
" 112 Stand Punches for the Public
Department and Collectors.

Supply

Supply of 6 Brass 100 lb Scales with weights
" " Scientific Instrument and 19 Mathematical Instrument Boxes of kinds for D.S.H. Officers.
" " 53 enamelled gauges for D.S.H.
Besides repairs to 6 Heliographs, 7 watkins Range Finders, 22 Hand Draw Infantry Telescopes in case for the Ordnance Department.

Repairs to 17 Prismatic Compasses with Stands for D.S.H.
" " 24 Theodolites with Stands
" " 25 Levelling instruments with Stands.
" " 6 numbering Machines.
" " 7 Barometers including Aneroids
" " 64 Levelling Staves of kinds for D.S.H. Officers.

There were 13 Students under instruction during the year in the Workshops.

W. H. Burton

Lt Col R.E.
Superintending Engineer
Q Circle.

July 1889.

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From
The Supdg Engineer
S. Circle

To The Chief Engineer
P. W. Deptt

Dated 20 Sep - 29 Sep - Recd - } July 1889.

No. 2676.

Administration
Report for 1888-89.

Extract from the Administration Report for 1888/89 of portions relating to the P.W. Stores & Workshops

2476
1889

* * *

New Works and Repairs to the P.W. Stores and Workshops buildings hitherto carried out by the Executive Engineer Presidency Division are from this year to be executed by the General Superintendent P.W. Stores and Workshops

* * *

Statement of Grant.

Division	Service & Departmental heads	Budget grant	Final Grant at the end of the year	Outlay	Expenditure compared with modifications	
					More	Less.
P.W. Stores	Provincial original Works Civil Buildings	480	2375	1784	"	591
	Repairs Civil Buildings	450	2250	1845	"	405
P.W. Workshops	Provincial original works Civil Buildings	"	5698	5466	"	232
	Repairs. Civil Buildings	5000	2500	1820	"	680.

* * *

P.T.O

In the P.W. Stores and Workshops under original Works the extension of Smiths Shop, walling in and improving the drainage of the Store yard, reroofing the Stable and Out-houses, and construction of two Fire Engine Sheds, were commenced and the two last mentioned works have been completed. P.W. Stores & Workshops

Under Repairs - repairs to Carpenter's Shed and to the roofs of the Store Rooms which latter had been just renewed when they were damaged by the Storm of last October, were commenced and the latter work completed besides a few other petty Repairs.

* * *

Colonel Clarke R.E. assumed charge of the P.W. Stores and Workshops on the 28th May 1888 from Mr Joyce and has since that date remained in charge of the P.W. Stores & Workshops. P.W. Stores

The

The whole Stock of the P.W. Stores was checked by him during the year and found to agree with the Books.

The closing balance of Stock shown in the preceding years report as Rupees 175494-9-7 having been subsequently altered by adjustments made in the Supplemental accounts for March 1888, the year 1888/89 opened with a balance of Rupees . . . 175496-12-7

The receipts of Stores during the year were

From London ..	34849-11-5	
P.W. Divisions ..	71-9-6	
Bray Workshops ..	1714-6-6	36635-10-5
		212132-7--

Issues during the year were

To P.W. Division	29658-2-6
P.W. Workshops	23166-13-6
Dholaikhuran Workshops	5592-0-2
Civil Department	40-7-8
Military Department	259-16-4
State Railways	452-12-2
	59170-3-4

	59170-8-4	212132-7-0
Guaranteed Railways	2192-10-2	
Mysore State — do —	1487-9-7	
Madras Harbor Works	767-12-9.	
Private Sales	1255-3-1	
Loss by Sale of Surplus Stores	968-2-8	
		65841-9-9
And the year closed with a Balance on 31st March of Rs being Rs 29205 less than the opening balance.		146290-13-3

There were 27 consignments of Stores received from England and there were also 27 Shipments by Steamers to the different Northern Ports.

Necessarily not much work but there was done for the State Railway Department the Bellary Kistna and Cuddapah & More State Railways having been transferred during the year to the Southern Mahratta Railway Company but some small consignments of Stores were received and disposed of which gave employment to the Port Store Keepers Department.

Keepers Department until the end of December.

There were 12 consignments of Stores received - viz:-

6 from London
5 from Calcutta
1 from Rangoon.

and there were two shipments, both to Calcutta.

P. W. Workshops.

A report on the Administration Accounts of the Workshops is to be submitted to the Government by the Examiner.

The following Statement shows the work done in the Shops during the year, as compared with the previous year.

	1888/89			1887/88			More than 1887/88			Less than 1887/88.		
Work done for P.W. Department	82174	3	7	79312	9	8	2861	9	11	-	-	-
do — — other departments	31212	-	7	66241	4	10	"	"	"	33029	4	3
do — — Private Parties	4244	6	10	6153	8	3	"	"	"	1909	1	5
Total	117630	11	-	149707	6	9	2861	9	11	32076	11	9

The

The Establishment charges amounted to Rs 20573-8-5 as against Rs 13718-12-1 the charges of preceding year.

The decrease in the amount of work done ~~during the year~~, for other Departments ~~may be partly~~ is accounted for by the fact that ~~the greater amount of work in the~~ during preceding year, ~~most~~ ~~due to the~~ ~~execution of~~ large orders ~~from~~ were given by the Salt & Commissariat Departments for weighing scales and weights and other articles, ~~orders such as cannot be expected every year.~~

The falling off in the amount of work done for private parties is not the ~~expected. If an explanation be~~ ~~cannot be accounted for under it~~ ~~is that~~ the Iron Manufactories started by Native Firms, have ~~been~~ resorted to by private ~~parties~~ individuals.

The value of Machinery in the Shops at the beginning of the year was Rs 107945. After deducting ~~the percentage of~~ 4 0/0 for depreciation and adding ~~Rs 4331-12-10 on account of~~ amounting to Rs 4294-14-11 certain receipts ~~during the year~~ the balance at end of the year was Rs 107908-8-6 7/12 balance of value of Stock on the 31st March 1889. Stood at Rs 172578 including Timber valued at Rs 9062-8- at Rupees 7767-9- less than the Stock balance at the close of March 1888- the difference is due to the necessity for selling a large quantity of so called Serviceable wood by Public Auction as useless and worthless.

The

The principal works done in the Workshops during the year were—

In the Mechanical Branch.

Supply of Iron Works Screw gear for 12 Shutters for Tinnevelly Dn D.P.W.

" — . Screw gearing Shutters 19 for Tinnevelly Dn D.P.W.

" — . 5 Shutters with Screw gearing for "Barur anicut" (Combatore)

" — . 3 Shutters for Pakaranellur Channel (Vellore).

" — . 1 Shutter for Cuddapah Dnl Officer D.P.W.

" — . 2 Shutters for Madura Dt Officer

" — . Iron Works for Tanjore Dt Officer

" — . — do — for 4 Pairs of Lock Gate Kurnool Canal Dn

" — . Several Sets of cast iron pipes Sluices for Coimbatore Dn D.P.W.

" — " 5 Shutters with Screw gearing for Coimbatore Dn D.P.W.

" — . Iron Works & Screw gear for 1 Shutter for Kurnool Division.

" — . 1 large Iron Record Rack for Forest Branch of Revenue Board Office Madras

Supply of Cast iron pipes & Iron works for Vellore Dt officer.

" — " 3 iron falling Shutters for the Cheyaur Anicut North Arcot Dn D.P.W.

" — " 1 four wheeled large cart for Vizagapatam D.P.W.

" — Logs of wood (teak) for the Vellore D.P.W.

" — . 6 Shutters with Screw gearing together with Iron works & Screw gear for South Arcot Dn D.P.W.

" — . 8 Screw gearing Shutters for "no 1 Periyar Dn" Madura Dt

" — " 400 Rg: Ft of copper cable Two 7 Strands for Mangalore Light House thro' West Coast Dt Officer D.P.W.

" — " 6 new Platform carts to Pr. Stores Deptt

" — " 2 Outfall Shutters for Vellore Dt Officer

" — " 4 Sets of Boring Tools for Pr. Works Dept.

" — 5 Wooden Cash chests large Stock bound with iron (with chains) for "Periyar Dn" D.P.W.

Cont?

(Continued)

Supply of 3 Stoney's Surki Screens-
patent.
" —— 3 Screw gearing Shutters
complete for the Kurnool D.H.
" —— Extensive wood work for new
Taluq Cutcherry at Cuddapah
(thro' Executive Engineer)
" —— Numerous 2700 Tools for the
"No 1 Periyar Project" Work Madura
" —— Wood work materials for the
Stabling &c of the H.H. Workshops
" —— 4 Screw gearing Shutters for
Negapatam D.H.
" —— 75 falling shutters for 3 Bridges
across the Coum River Madras
(thro' Ex. Engineer Presy. Dn)
" —— 1 Screw gearing & Shutter for
"Varoonkal Channel" Chingleput
D.H.
" —— Extensive wood work for Christ
Church Cuddapah.
" —— 80 Round Railings with Standards
for "St George's Cathedral"
compound Railings.
" —— Wood works for New Divisional
Office D.H. Cuddapah.
" —— 352 feet Copper wire for 7 Pagodas
Light"

cont.

(Continued)

Supply of 8 Iron falling Shutters for
"Grand Anicut" at Tanjore
" —— 8 Chinese pumps for Tanjore
H. Officer.
" —— 12 Shutters with Screw
gearing for "No 2 Periyar Dn"
" —— 52 Cast Iron ornamental
Columns for the Consulting
Architect Dn
" —— 24 wooden Doors for residence
of Collector of Anantapur
thro' D.H. H. Officer Bellary.
" —— 34 windows for residence
of Collector of Anantapur
thro' D.H. H. Officer Bellary
" —— a 3 cwt Beam Scales with
a Set of cast iron large
weights (Solas) for
Commissariat Deptt
" —— 14 Sets of Well Boring
Tools for the Ordnance Office
Madras Fort St George
" —— 4 Steam jackets, improve-
ments made to for Madras
Medical Stores.

cont.

(Continued)

Supply of 6 Block Boards for the
Madras College of Engineering.
" " 12 Cast Iron large Tee weights
for Nellore D.S.K.
" — " 12 Cedar wood boxes for Govt.
in the D.S.K.
" —— 7 Wrought iron wall Brackets
for Govt Telegraph Stores.
Testing 2 Boilers (old) & setting a
New Boiler in the Madras Govt
Bakery at Vepauipetti.
Repairs (& renewing) to 12 Spring Pan Scales on iron
Supply of Standards for Light Refreshments
Sundry Iron Copper & wooden
articles required for renewing
the Scotch Kirk Steeple work
damaged by Cyclone of 1888,
thro' Ex: Engineer Opesty:—
Fitting up crane for new Machines
Repairs to a 12 Horse Power Engine
& Boiler for D.S. Stores.
Connecting punkahs with the
main rope for the "Hobart"
& "Strizzle" wards of the
Madras Genl Hospital
Do punkahs with the Apothe-
caries Room of the Madras
General Hospital.

(Continued) 2427/145

Connecting punkahs with the Senior Medical
Officer's Quarters of the Madras
General Hospital.
Setting up the 10 Ton crane of D.S. Stores
at the Buckingham Canal Wharf
Madras Basin by order of Govt
in the D.S.K.
Supply of numerous Iron works and
turning, planing &c to several
Iron works supplied by Mr. W.E.
Borham Engineer Madras for
Sugar Cane Mills.
Besides Supply of wooden (Sealwood?)
Boxes for packing Tools,—
Instruments, Iron articles &
for D.S.K. Officers, and Sundry
other repairs of Scales Large
for the General public.

In the Instrument Branch.

Supply of Several Gun metal Shank
Spacers { 8 to Public Department
5 to D.S. Department
with Stands & Stems complete
" — " 144 Brass Seals with wooden
handles.

Cont.

(Continued)

Supply of 50 Brass Peons Badges of kinds for Public Deptt.

" " 31 ditto — do — do for P.W. Deptt.

" " 19 Silver Badges for Peons.

" " 26. Letter weighing Scales with weights Brass ¼ to 20+10 Tolahs

" " 2 Copper Pan Scales with brass chains and iron beam on iron tripods for weighing 1000 lb at time.

" " 792 Gunters measuring chains with arrows for the forest Deptt & Collectors of Trichinopoly &c (Galvanized)

" " 5 Brass Scales with weights in Boxes to weigh upto 50 lbs.

" " 5 German Silver minimum Scales

" " 50 Sets of Large Annular Brass weights for Commissariat Store

" " 80 Drawing Boards for Engineering College — 30 Sets + 5 pcs + 60 Sets 5 pcs

" " 3 Sets of Brass Tolas weights — 50 - 100 + 500.

" " 112 Hand Punches for the Public Deptt & Collectors.

" " 6 Brass 100 lb Scales with weights

Contd.

(Continued)

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Supply of Scientific Instrument &c
19 Mathematical Instrument Boxes of kinds for D.P.W. Officers

" " 53 enamelled Iron Gauges for P.W.D.

Besides repairs to 6 Heliographs, 7 Watkins Range Finders - 22 Hand Draw Infantry, Telescopes in case for the Ordnance Deptt.

Repairs to 17 Prismatic Compasses with Stands for Deptt

" " 24 Theodolites with Stands

" " 25 Levelling instruments with Stands.

" " 6 Numbering Machines

" " 7 Barometers including Aneroids.

" " 64 Levelling Staves of kinds for P.W.D. Officers.

/True Extract/
W H Hunter Lt Col
Supdg. Engineer 1st Circle

148 467

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SUPERINTENDING ENGINEER'S OFFICE,
V Circle, Madras,
Chepāk, 4th July 1889.

No. 2349.

From Colonel W H Burton RE.
SUPERINTENDING ENGINEER, V CIRCLE,

To
THE Chief Engineer
PK Department.
Ootacamund

SIR,

Enclosures. 2
1 Extract from Circle Administration Report.
1 Administration Report from Supdg Engr Workshops-transmitted.

With reference to your Memorandum No 1068, dated 26th June 1889 received 29th, I have the honor to forward an extract from the Circle Administration Report, of the portions relating to the PK. Stores and Workshops

2. The Circle Report will follow in a day or two.

3. The remarks in the General Superintendents Report (herewith retransmitted) regarding Workshops not being sufficiently supported by

HV

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by Ft. Officers and advisability of procuring timber from Burmah owing to difficulty of obtaining timber from Local markets and Contractors, have not been included in the Circle Report these being matters that should not find a place in the Administration Report but should form subjects of separate reports, in the course of ordinary correspondence. The General Superintendent has been informed accordingly.

I have the honor to be
Sir
Your Most Obedt Servant

W H Burton. Col R.E.

Superintending Engineer
& Circle

150 152

P. W. Cir. 1882

From

The Supty: Engineer
V Circle

To

The Chief Engineer
P.W. Department

Dated 6th July 1889.
Recd 12th
Regd 23 Aug

Enclosures 2.

No 2349.

Administration Report

Forwards an extract from the Circle ——. of the portions relating to the P.W. Stores & Works Depot.

38-VII-89

No 4645

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VIth Circle P. W.

General – Buildings and Roads Branch.

Administration Report of the Sixth Circle for 1888-89.

I. General Remarks.

Administration of the Circle.

1. Mr. J. W. Rundall, who assumed charge of the Circle on the 29th December 1887, having gone on special leave from the 1st October 188, the temporary charge of the Circle devolved on Mr. W. Hughes from the latter date up to the 6th of December 188, when he was relieved by Major D. Mc Neil Campbell R.E. This officer having been posted to the 1st Circle, the temporary charge of the Circle again fell on Mr. W. Hughes from the 23rd March 1889.

Grants & outlay.

2. I. The original grant under Imperial Military Works was Rs 7,220, while the final grant was Rs 7,616, and the expenditure was Rs 7,963.

II. Under Imperial Civil Works, the original grant was Rs 1,995; the revised grant was Rs 1280, and outlay was Rs 1005.

III. Under Provincial the sums were:-

Original

original grant Rs 1,32,877, final grant Rs 1,41,554 and expenditure Rs 1,36,745.

II. Under Incorporated Local Funds the figures were = Original grant Rs 89,502, revised grant Rs 87,910, and expenditure Rs 81,696.

I. Under Excluded Local Funds the amounts were = original grant Rs 23,422, final grant Rs 16,599, and outlay Rs 16,541.

3. I. The short outlay under Provincial amounts to Rs 4809. This was partly due to petty savings on works Completed and [illegible] partly to the Budgetment by the Civil Department of the sum of Rs 1,800 granted in G.O. No 3619 of 15th November 1888, for compensation for land required for Sub Magistrate's office at Sivaganga in Madura, not having been intimated by that Department; (2) to a lapse of Rs 502 from the grant for the Completion of the Cumbum Gudalur Road in Madura, owing to difficulty in procuring labor or proper Contractors; (3) to a lapse of Rs 871 from the reduced grant for the District Jail at Trichinopoly, in Consequence of the slow

Causes of short outlay.

2474/150

slow progress of work by the Jail Department; (4) also to petty lapses from grants for some other works owing to neglect of Contractors, (5) From the reduced grant of Rs 1770 for the Circle under Tools and Plant, only Rs 1283 were utilised, and the balance was a lapse.

II. The short outlay of Rs 6,214 under Incorporated Local was due (1st) to the large credit of Rs 2,700 at the end of the year to the Vaigai Bridge work by Sale of machinery and timber, which reduced actual outlay, and to slow progress of this work during the latter part of the year pending decision of pattern of parapets; (2nd) to the lapse of Rs 2,272, from the grant of Rs 3,935 for raising Perungolam Surplus Channel and Road No 23 in Timevelly, as the work could not be proceeded with owing to cultivation on both sides of the channel. (3rd) to the lapse of Rs 620 granted for diversion of Road No 1 at Alwarthirunagari in Negapatam, as the Compensation for land required was not paid by the Revenue Department; (4th) to a small lapse in the Trichinopoly Division, owing to the failure of the

Contractor,

Contractors, and to sanction the grant for the Tanjore Division.

III. The petty shortage of Rs 275 under Imperial Civil works was due to Bills for sinking a well in the Compound of the Post-office at Kottayam and for repairs to the Post-office at Nagercoil not having been received from the Chief Engineer, in Travancore.

Divisional & sub Hd changes

4. The two Sub Divisions in Trichinopoly Viz Head quarters and Musiri were rearranged as Head quarters and Northern Sub Division, changing their territorial extents, from 1st October 188, agreeably to G.O. No 2768 M of the 7th September 188.

Service Books

5. Orders regarding the maintenance of Service Books are reported to have been observed, except in the case of Storekeeper, Negapatam Division, ably entertained, for whom a book is to be opened. Several of the books have been also verified.

P.W. Sent to Press 19/6/19

Post-offices & Telegraph office at Trichinopoly

6. It has been decided by Government to allow the Royal artillery in Barracks into an office for the Collector,

Collectors, and to remove the Post-office and Telegraph office to the present building occupied by the Collector's office, but as the alterations to the Barracks could not be finished in time to admission of the Estimates, and as consequently the Collectors office could not be vacated, the sums allotted for alterations to the latter building had to be surrendered.

II. Progress of Works.

(a) Imperial - Military Works.

Trichinopoly.

7. Barrack bones were supplied to the 17th Regiment, Madras Infantry, at a cost of Rs 217, and 19 accoutrements stands were provided to the 4th Pioneers by the Military Department, for which Rs 217 were paid by this Department. Rs 4991 in repairing buildings and maintaining Cantonment Roads at Trichinopoly were spent.

Negapatam.

8. A bath room and kitchen were built at a cost of Rs 699 to the old Taluq Cutcherry occupied by the Serjt. Instructors, South Indian Railway Volunteer Rifle Corps, at Negapatam.

9. In the Tanjore, Negapatam, & Madura,

Madura, and Tinnevelly Divisions Rs 1839 were paid on account of compensation for quarters to the military and medical Subordinates.

(b) Imperial - Civil Works.

Negapatam. Telegraph office at Negapatam was repaired at an outlay of Rs 108. A sum of Rs 643 was spent in repairing Post-offices at Teppakolum in Trichinopoly, Ammiyanaikanur and Battlagundu in Madura, in Thumbaconum and Tranquebar in Tanjore, Tenkasi and Palamcottah in Tinnevelly, and at Ramnad a tiled verandah to the western side of the Post office at Ramnad was also constructed at a cost of Rs 244.

(c) Provincial - Civil Buildings.

Trichinopoly. Constructing District Jail at Trichinopoly - So far as this department is concerned the work has been completed. To Block No 5 A, which is being carried out by the Jail Department, much was not done. Expenditure during the year Rs 3,539, against the final grant of Rs 4,110; total expenditure Rs 73,904, against the revised estimate of Rs 85,244.

11.

11. Registrar's office at Trichinopoly was completed and handed over. Expenditure Rs 4842. Estimate Rs 5000.

12. Conversion of the Royal artillery Barracks into an office for the Collector was in progress. Estimate Rs 5300, outlay Rs 2537. The Estimate is under revision.

13. Construction of a compound wall and a latrine for the District Munsiff's Court at Ariyalur, was completed at a cost of Rs 1260, of which Rs 872 were spent during the year. Estimate Rs 1230.

14. Central Jail at Trichinopoly was repaired at an outlay of Rs 2402, and Rs 320 were laid out on repairs to the Store Room Executive Engineer's office, Ariyalur Munsiff's Court and St. John's Church.

Tanjore 15. Combined Court house for the District Munsiff's of Thumbaconum and Valangiman was completed at an outlay of Rs 34,840, of which Rs 24,470 were spent up to the preceding year; against the estimate of Rs 34,342 - The excess over estimate and appropriation was due to extra work found necessary.

16.

16. Improvements to the Taluq Cutcherry at Mayaveram, was completed at a total cost of Rs 12,703, against the estimate of Rs 11,680, the outlay during the year being Rs 7,166. In this case also the excess was due to additional work which had to be done.

17. Sub Jails at Nallady for the Land Customs Police were completed at a cost of Rs 1970, of which Rs 1880 were spent in the year, against the estimate of Rs 1950.

18. Police Station house at Vallam was in progress during the year at an outlay of Rs 982 against the grant of Rs 1000 and estimate of Rs 2200.

19. A Sum of Rs 1392 was spent on repairs to Jurisdiction in Tanjore Palace, Taluq Cutcherry at Kumbaconum, Division office, Tanjore, Sub Registrar's office, Police Station and Store Shed at Kumbakonum.

20. Improvements to the District Munsiff's Court-house at Mannargudi, which remained incomplete at the close of the preceding year, were completed at a cost of Rs 5,234,

of

Negapatam

2436/753

of which Rs 1175 were spent during the year; Estimate being Rs 5010.

21. Construction of District Munsiff's Court house at Tirumalur for which materials were under collection in the preceding year was nearly completed; the total outlay being Rs 12,892, of which Rs 7758 were spent during the year. Estimate Rs 14230. a portion of plastering, flooring and roofing remained incomplete.

22. Alterations and Improvements to St. Joseph's College buildings at Negapatam to fit them for use of public offices, partly carried out in the preceding year, were all completed and accounts closed, with the exception of one sub work Viz, General Improvements to the main building, Estimate Rs 2900, as in this case some small items of work has to be rejected. Expenditure during the year was Rs 15,388, and the total outlay, including the purchase amount of the buildings, being Rs 53267, against the estimate of Rs 63,505.

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23. Improvements to the Executive Engineers

Engineer's Bungalow at Negapatam were nearly completed at an outlay of Rs 898 against the estimate of Rs 976.

24. A sum of Rs 1620 was spent in repairing Taluq Cutcherry at Pattukottah, Sub Division office at Mannargudi, Executive Engineer's Bungalow at Negapatam, and old District Munsiff's Court, and in paying Municipal tax for certain buildings.

25. In connection with the "Preservation of Tirumal Naik's palace and adaptation for public offices" the only works that remained incomplete at the end of the preceding year were "Locating the Collector's office", Estimate Rs 44,640, and "providing wooden record racks to the District Court", Estimate Rs 8,830. These two Sub works were completed, the former at a cost of Rs 42,645 and the latter at Rs 8706, the outlay during the year being Rs 2031 and 270 respectively. The total outlay on the palace works was Rs 3,35,746. Madura.

26. Improvements to the District Munsiff's Court at Dindigal were completed at a cost of Rs 2703, against the estimate and grant of Rs 2680.

27. Providing wire netting &c to the District Jail at Madura was also completed at an outlay of Rs 4,247, of which Rs 357 were spent in the preceding year, the estimate being Rs 4482.

28. The construction of a third class Police Station house at Virapandi, which remained unfinished at the end of the preceding year, was completed at a cost of Rs 3,062, of which Rs 1007 were spent during the year, the estimate being Rs 2930.

29. The construction of a third class Police Station at Sainayanallore was also completed at an outlay of Rs 2,888, of which Rs 847 were spent during the year, the estimate being Rs 3690.

30. The construction of Sub Registrar's office at Tirumangalam, which remained incomplete at the end of March 88, was completed during the year at a cost of Rs 3,259, of which Rs 2407 were spent in the preceding year, the estimate being Rs 3864.

31.

31. Improvements to the Dy. Tasildar's office at Vasilampatti, Estimate Rs 2,420, were only partly carried out at an outlay of Rs 2011, owing to the failure of the Contractor.

32. The Construction of 4 Reserve Police huts at Madura was also completed at a cost of Rs 1126 against the estimate of Rs 1166.

33. A Sum of Rs 3,142 was spent in repairing and maintaining Tirumal Naiki's Palace at Madura, and in repairing District Munsiff's Court at Dindigal, Dy. Tasildar's office at Vasilampatti, Sub Collector's office and residence at Dindigal, and in paying Municipal taxes for certain buildings.

34. Tahsildar's office at Srivaikuntham - Estimate Rs 25,940 - The walls all round have been built to the top of the doorways or to an average height of 8 ft; and Rs 9570, spent from the grant of Rs 10,300. The progress was slow owing to the neglect of the Contractors. Tinnevelly

35. Construction of Subsidiary Jail and

14

24/36
35

and outhouses to the Dy. Tasildar's office at Thalavaipuram, was in progress. Walls fully raised, trusses and rafters put in, and Rs 2778 spent, against the estimate of Rs 3900 and grant of Rs 2780. The work being situated in an out of the way place, was not completed.

36. The reconstruction of Sub Division and overseers office at Nethigudi was nearly completed; the outlay was Rs 1924 from the final grant of Rs 2230 and against the estimate of Rs 2630. The Contractor made slow progress.

The reconstruction of the Police office at Nokarakolam was completed at a cost of Rs 8620, the grant and estimate being Rs 8960.

38. The Construction of a third class Police station house at Illaiyampatty, Estimate Rs 1200, and the Construction of a Police station house at Manguneri, estimate Rs 1800, were partly carried out and Rs 759 & 694 spent thereon respectively. The former was not completed as it was in an out of the way place, and the latter was started late in the year.

39

157

39. Improvements to the District Court house at Kokarakulam were completed at a cost of Rs 2,819, of which Rs 1,926, were spent during the year, the estimate being Rs 2,030. The excess of Rs 789 over the estimate was due to the workshops liabilities having exceeded the amount provided for the Lightning Conductors in the estimate.

40. The Construction of Police hut at Kirudupatty was completed at a cost of Rupees 1274, the estimate being Rs 1340.

41. A Sum of Rs 950 was expended on petty Repairs &c to 11 works of which 9 were completed.

42. District Munsiffs Court house at Paramagudi - Estimate Rs 19693 - Foundation and basement were completed and walls raised to 10 ft height and door and window frames fixed; materials for roofing collected Rs 7861 were spent against the final grant of Rs 8,000. Ramnad Dt

43. Police assistant Superintendents Bungalow at Ramnad and the Sea Customs office at Devipatnam were repaired

Madura. 24/36 136

44. Completion of the road from Cumbum to the foot of the Peermede Ghat road - Estimate Rs 90,507 - Rs 10,827 were spent against the final grant of Rs 11,329 - The progress of the work during the year was not satisfactory owing to the difficulty in procuring labor in consequence of progress of works at the Periar Dam - Thuruvanoothu Bridge completed except parapets. There yet remains some Rs 4000 worth of work to be done.

Madura. (c) Provincial - Miscellaneous Improvements.

45. Survey of road at Kodaikanal was completed at an outlay of Rs 157, and Rs 30 were spent on repairing and fencing two Thrishanams on Palni Hills.

(f) Local - Incorporated.

Madura. Communications.

46. Construction of a bridge over the Vaigai River - Estimate Rs 3,21,460 - Grant Rs 70,475; outlay during the year Rs 68,083, and total expenditure Rs 2,64,088. At the beginning of the year the bridge had been completed to

the

the top of the piers and one arch had been turned - During the year the remaining 14 arches were completed; the face walls were finished to the top of the arches; the blocking course alone was almost completed - The approaches were almost finished with the exception of the gap left for the Melur Road, and two culverts were constructed on the road.

47. Two miles of the Tumbenna Sudalore road were repaired at an outlay of Rs 1845.

48. 11½ miles of road on river banks were maintained at a cost of Rs 5652. Tanjore

49. 20 miles of road No 20 from Sankarapuri to Lower Anicut were maintained at a cost of Rs 883. Trichinopoly

50. 43½ miles of road on River banks were maintained at a cost of Rs 4039. A sum of Rs 6200 granted for improving road No 1 in Olinadhi limits was not utilised as compensation for land was not paid by the Revenue Department. Negapatam

51. Rs 3,935 - The Local Fund Shares were granted for raising Perungolam Surplus Timevelly

Surplus channel and Road No 23, of which Rs 1663 were paid for compensation for land required - The work cannot be put in hand owing to incultivation on both sides of the channel.

52. A training wall to Thamaraikulam supply channel was constructed - Expenditure from the Local Fund share being Rs 109, against the estimate of Rs 235.

(9) Local - Related

Miscellaneous Public Improvements

Timevelly 53. Light House Keepers Quarters at Manapad - Walls were raised very near to full height and wood work in progress, Rupees 1,980 were spent from the revised grant of Rs 3,279 and against the estimate of Rs 3679 - As no Contractor would take up the work for a long time owing to the inaccessibility of the situation rendering it very difficult to obtain labor and materials, the progress of work was much retarded.

54. The Construction of staging and wooden House for Tidal observatory at Tuticorin was completed at a

a cost of Rs 15-76.

55. The construction of Light-house at Manapad, which was commenced in the preading year, was completed at a total cost of Rs 1294, of which Rs 486 were spent during the year.

56. A temporary shed was also built at a cost of Rs 83 as temporary quarters for the Light House keeper at Manapad.

57. Extension of the Jetty wall at Negapatam, though slow in progress at first on account of rains, was subsequently pushed on vigorously, and work completed with the exception of the gap of superstructure at mouth of Town Drain. This was delayed owing to non supply of cut-stone. Rupees 10,499 were spent against the estimate of Rs 17,570 & grant of Rs 10,500. Negapatam.

58. Improvements to the Light House at Negapatam could not be completed, the estimate having been sanctioned late in the year, but only Rs 136 could be utilised on account of work done in the D. W. workshops out of the grant of Rs 470.

59. Filling in Boat-basin, and Diverting the Main Town drain, which were commenced in the preceding year, were partly carried out this year and Rs 1,628 and 2,659 were in all spent, of which Rs 454 & 621, respectively, being expenditure during the year, against the estimates of Rs 2,284 & 2,900. These works could not be finished until the extension of the Jetty wall is completed. Repairs to the Jetty wall, commenced in the preceding year, were also completed at a total cost of Rs 847 of which Rs 211 were spent in the year. The drainage channel at Jetty wall was improved at a cost of Rs 519, and damages caused to the Jetty wall by the cyclone were repaired at an outlay of Rs 211.

Miscellaneous

(b) Deposit Contributions.

Madura. 60. A Sum of Rs 2,521 were spent on repairs to No 23 Thamaraikulam Tank, No 28 Puliankulam Tank (both in the Kammady Zemindary), on construction of sluices to 31 Chinnanai-kal channel, repairs to Silaiman Tank

Tank, improvements to No 2 Thama-
raikulam Tank and Tunkum &
Bungalow.

A Smith Lt: Col: R.E.
Camp/ Kodaikanal, Suplg. Engineer Vlt. Circle.
Comp. A. 29-5-89
Desp. 5/6

44½ 248/159

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From The Supg. Engineer
VI Circle

To The Chief Engineer
P. W. D.
Madras.

No 1645

Dated 29th May 1889
Despd 6th June
Rec'd 7

General - Buildings
and Road Branch.

Administration
Report of the Sixth
Circle for 1888-89

To Press

Proof please return
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No 100 R.N

6th Circle

Ramnad Pzemundary.

Wards Estate

Administration Report for the year 1888-89

I. General Remarks.

Changes in Divisions and officers.

1. Throughout the year the Ramnad Division was in charge of Mr. W. Jopp, Executive Engineer.

Grants and Outlay.

2. Civil Buildings - The original grant was Rs 39,200 - Viz under aiw Rs 13,700, under Devadanam Rs 16,500 and under Chuttram Rs 9,000; revised or final grants were Rs 19,950, 7,333 and 4,911, respectively, amounting in total to Rs 32,194; while the expenditure amounted to Rs 30,894, Viz Rs 19,176, 6,906 and 4,972, respectively under the three heads; shewing a short outlay of Rs 1,300 - with reference to the final grant.

CB 30894 / 71531 / Rev 1 / 24425

3. Agricultural - The original grant was Rs 1,10,800 Viz Rs 87,050 under aiw, Rs 17,600 under Devadanam and Rs 6,150 under Chuttram; the revised grant was Rs 72,377, Viz Rs 66,744, 5,345 and Rs 288, respectively, under the above 3 heads, while the expenditure amounted to Rs 71,531 - Viz Rs 65,964, Rs 5,283, and Rs 284, respectively,

Rev. 72377

Rev 104571

Shewing

showing a short-outlay of Rs 849, with reference to the final grant.

Causes of variation in Budget-grant

4. The total original Budget-Grant of Rs 1,50,000 was first reduced to Rs 95,511, as estimates could not be got ready in time for several works included in the Budget; and subsequently the latter amount was increased by Rs 9000 to meet demands for emergent repairs to Irrigation works occasioned by the heavy rains and cyclone of December 1888.

95,511
9000
1,04,511

Cause of Short-outlay

5. The lapse of grant or short-outlay is not considerable. The full grant, if not more, could be utilized if funds required for improvements to the Tondai dams and the construction of an Establishment at Aliramam were handed over by the Revenue Department. A considerable quantity of work was also carried out but not paid for owing to the payees, in some cases, disputing the accuracy of the bills, and in some not appearing to receive payment before the end of the year. The expenditure during the year was on the whole satisfactory, when compared with that of the preceding year Rs 76,963.

6.

Difficulties experienced in carrying out works.

6. There were still difficulties experienced during the year in the carrying out work (1) want of labor skilled and unskilled, (2) want of trustworthy contractors or piece workers, (3) difficulty in obtaining or manufacturing materials of a good quality - (4) want of a sub division officer to assist the Executive Engineer.

II. Progress of Works.

Civil Buildings - Original Major Works.

7. The following Major works were in progress during the year:-

(a) Improvements to the Devadanam Superintendent's office, an incomplete work of the preceding year, were finished at a cost of Rs 6,454, of which Rs 3,847 were spent up to that year, the revised estimate being Rs 6,590.

(b) The Construction of a granary at Rajasingamangalam was nearly completed at an outlay of Rs 2,443, of which Rs 429 were spent in the previous year, against the estimate of Rs 3250.

(c) The Construction of a granary at Nagatur, Estimate Rs 4,237, was in progress during the year - a portion of the masonry work was carried out - and

166

191

191 c. ft. of teak wood purchased at an outlay of Rs 1,004.

8. The following minor works were completed during the year:-

(1) Constructing a shed north of the Shanmuganadasawmi Kovil at Ramnad; Estimate Rs 200; outlay Rs 168.

(2) Reconstructing an elephant-shed at Tiruppulany - Estimate Rs 265; Expenditure Rs 200.

(3) Constructing a granary at Keeranoor - Estimate Rs 1,280 - Outlay Rs 1,282.

(4) — Do — Zemindary Cutcherry at Ramnad - Estimate Rs 1,785 - Outlay Rs 1,837.

(5) Improving Talak building at Ramnathy - Estimate Rs 600 - Outlay Rs 593.

(6) Constructing a wall to the Estate house at Do Estimate Rs 200 - Outlay Rs 191.

(7) — Do — Compound wall to the Taluq Cutcherry at Do - Estimate Rs 95 - Outlay Rs 93.

9. The following works were in progress:-

(1) Constructing a granary at Kadiacottah - Estimate Rs 2,270 - Outlay Rs 2,167.

(2) — Do shed in front of Taluq Cutcherry at Rajasingamangalam - Estimate Rs 720 - Outlay Rs 341.

(3) — Do - a granary at Maravakai - Do 185 - Do 747.

(4) Constructing a division cutcherry at Sayalgudi - Estimate Rs 650 - Outlay Rs 424

(5) Substituting tiled roof for thatch on one on the back portion of the Talak house at Ramnathy - Estimate Rs 370 outlay Rs 195.

(6) Constructing a cook house and Stable to the Travellers Bungalow at Ramnathy Estimate Rs 180 Outlay Rs 141.

(7) — Do — an Talak house at Abiramam Estimate Rs 2,270 - outlay Rs 919.

(8) Improving the Suburahmanier's temple at Eludukulattur - Estimate Rs 880 - Outlay Rs 641.

(9) Constructing a Mantapam in front of Arunachala Kovil at Tiruchuli Estimate Rs 2,140 - Outlay Rs 1,301.

(10) Improving the temple at Maravakai Estimate Rs 700 - outlay Rs 466.

Repairs. 10. Out of 53 works in progress under different heads 42 were fully completed.

Agricultural - Original Major Works. 11. The following Major works were in progress during the year:-

(a) Improvements to the Ramnad large tank, in progress since 1886-87, were almost completed at an outlay of Rs 21,012, of which Rs 13,956 were spent up to the preceding year; the estimate being Rs 21,550.

(b)

(b) Improvements to the Rajasingamanu-galama tank, an incomplete work of the preceding year, were nearly completed during the year at an outlay of Rs 18,051, of which Rs 5,383 were spent during the year, against the estimate of Rs 20,030.

(c) Repairs and improvements to the Anuikulam tank, another incomplete work, were completed with the exception of the Surplus Sluice; the outlay during the year and up to the year being Rs 7669 & 14,036, respectively against the estimate of Rs 14,085.

(d) Improvements to the Kalary tank, Commenced in 1886-87, were still in progress during the year. The slow progress of the work was due to the inadequate and unattractive rate allowed for earth work in the estimate. A revised estimate of Rs 21,120 providing a higher rate and the relaying of a portion of the foundation for the surplus weir, washed away during the cyclone of December last, had therefore to be submitted. An outlay of Rs 7,980 was incurred on the work, of which Rs 6,382 were spent in the preceding year, the original estimate being Rs 17,610.

(e) Raising and extending the Gender dam, commenced about the end of the preceding year, was nearly completed at an outlay of Rs 11218, of which Rs 775 were spent in the preceding year against the estimate of Rs 13,600. The work would have been completed had the lands required for extension been handed over by the Revenue Department.

(f) Improvements and repairs to the Akkaraman Tank were commenced late in the year; the construction of the weir was put in hand and an outlay of Rs 1114 incurred against the estimate of Rs 10,870.

(g) Improvements to the Iramanur Tank, estimate Rs 2,955, were commenced in the year and Rs 372 were spent in the collection of materials for masonry works.

12. The following minor works were completed during the year:-

(a) Levelling Tanks and channels. Estimate Rs 1100 outlay Rs 1119.

(b) Constructing a Surplus weir and a sluice in Nerayur Tank. Estimate Rs 2090. Outlay Rs 2,263.

(c) Conobructing a sluice in Kannatty Tank - Estimate Rs 235 - Outlay Rs 221.

(d) Digging trial pits for masonry works in Connection with the Regunathan Cauvery channel - Estimate Rs 200 - Outlay Rs 135.

(e) Removing high ground in rear of South weir of Anaikulam tank - Estimate Rs 530 - Outlay Rs 540.

(f) Forming a temporary escape in the Gundar dam - Estimate Rs 265. Outlay Rs 260.

13. The following minor works were in progress:—

(a) Improving the Kannancottai tank. Estimate Rs 1,748 - Outlay Rs 1,346.

(b) Improving Kallicottai tank — Estimate Rs 1,380 - Outlay Rs 1129.

(c) Conobructing a surplus weir and flank escape to the Pallangudi Tank - Estimate Rs 1,914 - Outlay Rs 1,385.

(d) Conobructing a surplus weir and 3 sluices to Kalligudi tank - Estimate Rs 1285 - Outlay Rs 988.

(e) Conobructing 2 sluices in Kundi-ankulam Tank - Estimate Rs 460. Outlay Rs 8[illegible]

(f) — Do — Do - in Kalingudi Tank Estimate Rs 380 - Outlay Rs 265.

(g) Fixing B. M. Stones along the Agundo Cauvery

3/

Cauvery channel - Estimate Rs 350 - Outlay Rs 172.

(h) Improvements and repairs to Pappa tank - Estimate Rs 1,975 - Outlay Rs 1071.

(i) Conobructing a sluice in the Thempu-tamaigundy tank - Est Rs 570 - Outlay Rs 494.

(j) Improving the masonry works in Tiruchuli tank - Estimate Rs 1,758 - Outlay Rs 1092.

Repairs.

14. Out-of 212 repair estimates in progress in the year 195 were completed. The cyclone of December last caused a good many breaches, which were all closed, as far as was necessary to do so to prevent loss of water. The number of tanks thus repaired on emergency is 170 and their Cost amounted to about Rs 8000 - The large tanks at Rajasingamangalam, Ramnad, Kalary & Anaikulam sus-tained only petty damages, owing to the recent improvements carried out to them.

State of Irrigation works in General.

15. The improvements & repairs to the four tanks above mentioned, which have an ayacut of 1879 acres, were the chief work practically carried out to Completion during the year; these tanks may now, with an ordinary attention, bring in an assured and steady revenue.

Mob—

Work of the minor irrigation works still remain in a very bad state. These together with the Gundar dam at Kamatty and the Reguvada Cauvery channel should be put in an efficient state. The scheme has been enquired into and partially worked out. The channels from the Vaigai should be head sluiced, and the tanks supplied thereby should be repaired and provided with proper surplusing arrangements.

Kodaikanal
10th June 1889

A Smith Lt. Col: R.E.
Superintending Engineer
7th Circle.

No. 2194 :—

I have the honor to submit, for the very favorable consideration and orders of Government, the accompanying letter from the Consulting Architect to Government, forwarding with reference to G.Os., dated 5th January and 20th April 1883, Nos. 2 and 230, Educational, respectively, plans and estimates for additions and improvements to the Medical College buildings. The estimate consists of the following items, aggregating Rs. 75,326 :—

	Rs.
(1) Dissecting house	36,830
(2) Improving light and ventilation of and adding galleries to the	

new floor occupied by the Professor of Biology
192 169(A)

Additions to the College of Engineering, Madras.

This work was completed and occupied in August 1885. The additions have greatly improved the appearance of the Chepauk buildings, and the large saving is mainly due to the excellent management of Mr. J. H. Stephens, the Army Asst. Engineer in immediate charge of the work.

The estimate amounted to Rs. 90,000, but the work was completed at a total outlay of Rs. 76,785

Additions to the Medical College, Madras.

This comprised seven separate items of work, sanctioned in G.O. No. 1252 M dated 7th May 1884, aggregating to Rs 75,326, items Nos. 4, 5, 7 have been almost completed. Item 6 was in progress. Items 1, 2, 3 are not now required. A revised estimate for the work amounting to Rs 27,904 was sanctioned in G.O. No. 1175 M dated 3 May 1889.

(1) Dissecting house ... ... Rs. 36,830
(2) Improving light and ventilation of and adding galleries to the three lower rooms of north wing 9,026
(3) Improving lighting and ventilation of present anatomical theatre. 196
(4) Erecting galleries, &c., in library 5,425
(5) Adding an upper-story to the north wing 13,999
(6) Completing verandah round front and sides of building... ... 8,775
(7) Improving out-house rooms. 1,075

Total ... 75,326

Constructing an intermediate floor in the Library, Presidency College

This work was successfully completed and the new floor occupied by the Professor of Biology

192 + 69(A)

at the End of the vacation in July 1858.

Maintenance of the Chepauk Park & Marina

The planting of the Park and Foreshore has been maintained.

Rupees 1096-8-4 were realized by the sale of Hay and plants produced in the Park and the old fishing village site and credited to Provincial Revenue.

Government Brick and Tile Manufactory

350810 Bricks 53,200 flooring and 94233 roofing tiles, were supplied for Government works and 150,000 bricks & 8200 flooring tiles to the Madras Municipality at an advanced rate of 24½ per cent on Government rates. A very small supply of roofing tiles was also made to the Mysore Government. The Gross profits of the year were Rs 1596 and adjusted as follows:—

Rupees 423 bring the amount of percentage charges realized was credited to Provincial Revenue.

Rupees 1173 debited to Manufacture

P.W.C. No. 5530

To

The Chief Engineer
P. W.

No. 100 P.W.

Dated 10th } June/89.
Recd 15th }

P.W.S. 6.89

Ramnad Zemindary.

Wards Estate.

Administration
Report for the
year 1888-89.

P. W. D.

9436 29
167

Consulting Architect's Office,
Chepauk, Madras,
5th June 1889.

No. 314.

From

J. W. Brassington, Esq.,
Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department.

Sir,

Enclosure. /

I have the honor to submit the following Report on the Administration of this office for the official year 1888-89:—

General Remarks.

The total amount expended on original works and repairs was Rs 369,523, under the following heads

Imperial Civil works		Rs 2443
Provincial — do		" 334,791
Do Mis: Public Improvements		" 10,675
" Local Excluded		" 675
Contributions works		" 20,939

169 171

Consulting Architect

New Law Courts — Madras.

This was the most important work in progress.

An Estimate amounting to Rs 144,131 was sanctioned in G.O. No 891 W dated 17th March 1858 for the preparation & collection of materials, and a sum of Rs 2,15,000 was provided for expenditure during the year. In September 1858, the approximate estimate of Rs. 9,48,000 was accepted, & the Commencement dated 10th September 1858 authorised the Construction of the buildings was authorised. At the close of the year the foundations were laid and the work completed up to level of basement floor or 9" over foundation. The progress of the work has been very satisfactory, although some delay was caused by the slowness in diverting the line of Railway, the failure of the Contractor to supply bricks, and the non arrival of the English stores indented for, in consequence of which the Entire grant for the year was not expended.

Mr Chisholm is Calendar provision for the High Court, Original and Appellate Sides, the Court of Small Causes, and the

New Court house for the Presidency Magistrate Police Station & Fire Engine room, Madras

This building was completed with the exception of some Exterior decorative work, and completely the Magistrates on the 31st March 1859.

Total Expenditure was Rs 45,437 against an estimate of Rs 49930

account towards periodical adjustment of Land & kiln Charges. 24th Oct 31

The works depend almost entirely on the management of the Brickfield as no bricks at a reasonable cost can be obtained elsewhere and it is the most important Subdivisional charge in the Division.

18 N

Victoria Hospital for Caste & Gosha Women.

This work the execution of which has been entrusted to this Division has progressed favourably the walls of the three blocks have been raised up to level of first floor and the terracing commenced.

" "

Progress of Works

Imperial Civil Works

Minor works.

Telegraph office Madras

Total amount sanctioned ——— Rs 1908

Expenditure during 1858-59 Rs 1215

Amount previously expended " 292 ——— " 1507

Difference saving Rupees 401

377

Repairs

Post Office - Madras

Total amount sanctioned ——— Rs 1563

Expenditure during 1888-89 Rs 737

Amount previously expended " 376 ——— " 1113

Difference Saving Rupees 440

Telegraph Office - Madras

Total amount sanctioned ——— Rs 1,314

Expenditure during 1888-89 ——— Rs 490

Amount previously expended ——— " 813 ——— " 1303

Difference Saving Rupees 11

Provincial Civil Buildings

Major Works

New Law Court at Madras

Estimate sanctioned for preparation &
Collection of materials &c ——— Rs 1,40,000

Expenditure during 1888-89 ——— " 175394

Excess Expenditure 31765

Nearly all the timber for roof have been collected.
a large number of door frames prepared.

A quantity of sheet lead, glass & copper tape for lightning conductor have been received through the Secretary of state, steel plate and rolled girders and Iron sliding room doors have been indented for through the same source. A quantity of stone for steps, brackets &c have been collected and partly dressed. Cuttapah slabs for flooring & copings collected. 212,984 Cubic feet of concrete in foundations have been laid and 126188 Cubic feet of brick work in foundations and basement.

New Court house for the Presidency Magistrate Police Station and Fire Engine room - Madras

Total amount sanctioned ——— Rs 49,830

Expenditure during 1888-89 Rs 38,615

Amount previously expended " 6822 ——— " 45437

Difference to be expended Rs 4393

This work has been completed with the exception of some Exterior decorative work

Additions

Additions to the College of Engineering

Madras

Total amount sanctioned _____ Rs 90,66

Expenditure during 1888.89. Rs 9556

amount previously Expended " 67,225 _____ " 76756

Difference Saving Rs 13250

This work has been completed.

Addition to the Medical College. Madras

Total amount sanctioned _____ Rs 75,326

Expenditure during 1888.89. _____ " 1810.2

Difference Rupees 57224

Items 4. 5 & 7 referred to in G. O. No 1252 W dated 17th May 1884 are almost completed and No 6 is in progress.

Police Station, Vaccination Report & Registrars

Office at Madras

Total amount sanctioned _____ Rs 12,000

Expenditure during 1888.89 Rs 9421

amount previously Expended " 2137 _____ " 11,558

Difference Saving Rupees 442

This work was completed and occupied

in July 1888.

This work reflects great credit on Sergeant Smith in immediate charge. The total outlay was Rs 11,558 against an estimate of Rs 12,000 - 2436

Constructing an intermediate floor in the Library of the Presidency College.

Total amount sanctioned _____ Rs 8517

Amount Expended in 1888.89. Rs 6875

Amount previously Expended " 827 _____ " 7702.

Difference Saving Rs 815

This work was completed and occupied at the end of vacation in July 1888.

Constructing a large shed in the grounds of the building lately occupied by the office of Director Public Instruction to accommodate the Army Clothing Department.

Total amount sanctioned Rs 31439

Expenditure during 1888.89 " 15915

~~Difference to be expended~~ Rs 15524

The large shed and other minor additions have been completed. The two sheds for accommodating the Bombay Clothing Agency remained to be executed.

Executed. Large shed completed a very short time by Sergeant Smith. The expenditure amounted to Rs. 15,915 against an estimate of Rs. 31,429

Alterations to the Old Mint buildings, Madras, to fit them for the Government Press.

~~Total amount sanctioned~~ ——— Rs 20,733

~~Expenditure during 1858-59~~ ——— " 16,541

~~Difference Saving~~ ——— Rs 4,192

This work was completed & occupied in December 1858 at a cost of Rs 16,541
The sanctioned estimate amounted to Rs. 20,733-

Constructing an additional Ward at the Ophthalmic Hospital. Madras for accommodating Native Military patients

~~Total amount sanctioned~~ ——— Rs 5506

~~Expenditure during 1858-59~~ ——— " 5506

~~Difference to be provided~~ Rs 2525

The foundations have been executed and the walls raised to the required height; roof timbers were
doors & windows are being prepared. The entire estimate amounted to Rs 5506, the outlay during the Year was Rs 5131-

Additions to the Ophthalmic Hospital, Madras

~~Total amount sanctioned~~ ——— Rs 57

~~Expenditure during 1858-59~~ ——— " 24 22

~~Difference~~ ——— 2195

These consist of a new kitchen for the Apothecary's Establishment which is almost completed, and altering the old kitchen into a coach house & stable for the Superintendent, and ceilings for the wards, the planking for which was under preparation and one ward almost ceiled. The estimate amounts to Rs 4,517. & the outlay Rs 2,422.

Compensation for land taken up in connection with the Fishing Village South of the Presidency College.

Amount paid ——— Rs 3497

This amount was paid in accordance with G. O. No 3977 dated 19th December 1855, after the land was taken charge of by this Division

Sch. Minor Original Works.

Rupees 9132 was expended on twenty different works under this head, the most important of which consisted in improving the Revenue Board Building Chepauk, and fitting up a room for the Forest Department Museum, and providing new Reconstructing a shed at the School of Arts for drawing classes, and other improvements to the building.

Provincial Repairs Civil Buildings

Rs 27,620 was expended under this head for the annual & general repairs to the buildings in charge of this Division

Rs 4384 included in this amount was for Municipal taxes on certain P.W. Buildings, conveyance of floating & Senate House Latrines &c

Miscellaneous Public Improvements

Minor Works

Rupees 65 were expended on clearing and levelling the site of the old fishing village and Sewage farm

Repairs

Rupees 10606 were expended under this head for maintaining the Chepauk Park, South Beach Marina and old fishing village site

Local Funds

Repairs

Rupees 674 was expended under this head for repairs to the Senate House

Manufacture

Rupees 40375 were expended at the Government Brick fields in the Manufacture of bricks tiles &c

Tools and Plant

A sum of Rupees 339 was expended on new supplies

——"——

The Service books of the Employes of this Division are correctly maintained

——"——

A list of plans & estimates prepared in this Division during the year under review is appended.

J. W. Mansergh
Consulting Architect
to Government

List of Plans & Estimates

" 743/178

1 Plans and Estimates for store sheds &c for Army Clothing office

2. Estimate for sunsheades for Civil works Sub Division Presidency Division

3 Estimate amounting to Rs 19471 for alterations & additions to the Mint building to fit them to receive the Government Press

4 Estimate for planting and laying out hills water piping to St. Andrews Church

5 Estimate for lowering punkahs in the Separate Revenue office

6 Estimate for maintaining the Chepak Park

7 do —— do —— the South Beach Marina

8 do —— Conservancy Establishment for the Floating latrine

9 do —— do —— Senate House latrine

10 Estimate for providing Ceramic Mosaic Spandrils for the arches of the Senate House

11 Plans & Estimates for fittings & water supply for the Biological Laboratory Presidency College

12. Estimate for looking after the roof of the Senate House

13. Plan & Estimate for ceiling the wards & some additional work required at the Ophthalmic Hospital 177

14. Estimate for Repairing water pipe in the Lyngin Hospital

15. Estimate for Cuddapah slabs for shelves at Brickfields

16 Estimate for manufacture of bricks, tiles &c at the Government Brickfields

17 Estimate for putting up 3 more punkahs in the Settlement Office

18. Estimate for reroofing the western block of the Rev: Board Office Stables

19 Estimate for reconstructing with stone the parapet wall on the South side of the Revenue Board Office

20 Plans of proposed Native Military Wards Ophthalmic Hospital

21 Estimate for providing a New punkah in the room occupied by State Railway office at Chepauk

22. Estimate for repairing punkahs in the Examiners' Office

23 Revised design of Sub Collectors Cutcherry & Quarters.

24 Revised drawing of Galleries for the additions to Medical College

25 Estimate for providing punkah to the Matrons bedroom. Lying in Hospital

26. Plan & Estimate for an additional shed at the School of Arts

27 Estimate for repairs to Ophthalmic Hospital

28. Estimate for providing Copper tape to the lightning Conductors for the Revenue Board office

29. Estimate for annual repairs to Presidency College

30. Revised standard Design & Schedule of quantities for a Sub Registrars office with tiled & terraced roofing

31. Estimate for Petty repairs to Ophthalmic Hospital

32. Estimate for repairs & improvements to the Principals quarters Civil Engineering College

33 Two block plans of Victoria Hospital

34. Repairs Estimate to Revenue Board Buildings

35 do —— do —— College of Engineering

36 Estimate for petty repairs to Wallajah Bangle Chepauk

37. Estimate for oiling & greasing the fire Engines at

38. Plan & Estimate for adding Verandahs to the Apothecarys quarters Ophthalmic Hospital

39 Plan of new kitchen for the Apothecarys of the Ophthalmic Hospital

40 Plans & Estimate for constructing Victoria Hospital

41 Estimate for repairing the iron boat of the floating Lazaretto, Chepauk

42 Estimate for Repairs to the Forest Museum room in Chepauk buildings

43 Estimate for repairs to the General Post office (annual repairs)

44 Estimate for annual repairs to Telegraph office

45 do —— do to the School of Arts

46 do — for attaching a hose to the tank in the North East angle lower Post office

47 do — for Repairs & alterations to the Lying in Hospital

48. Plan & Estimate for Constructing New High Court

49 Supplemental Estimate for alterations & additions to old Mint buildings

50 Estimate for repairs to the Family quarters attached to the College of Engineering

51. do —— for alterations & additions to the School of Arts

52 Estimate for extending water pipe in the Revenue Board Tiffin rooms

53 Plan & Estimate for extending the floor of the Examination Hall Presidency College

54 Estimate for Repairs to Amir Mahal

55 — do — for water supply to High Court

56 — do — for wire netting in the arch of signal rooms opening into Central Hall Telegraph office

57 do —— do — for the Superintendents office. Telegraph office

58 Estimate for Boarded ceiling in two rooms of Superintendents quarters & Signallers dormetory Telegraph office 243/176

59 Estimate for punkahs for signal & receiving rooms

60 Plan for laying grounds East of the Revenue Board office

61 Estimate for alterations & improvements to old Revenue Survey office

62. — do — for Repairs to Ophthalmic Hospital

63 — do — for Conservancy of trees in the Tolling village

64 — do for repairing Stables of the Telegraph office

— do — for providing teakwood battens in the doorways leading from the Forest office to Cash keepers room Revenue Board office.

66. — do — for improvements to Signallers quarters &c Telegraph office

67 Plan & Estimate for additions to the School of Arts

68 — do —— do for a shed for drying bricks at the Government Brickfields

69 Estimate for Emergent repairs to the Madras Observatory. 179

177

70 Estimate for altering the retiring room of the Chief Engineer for Irrigation

71 Plans & Estimate for putting up an Electric Clock on the North face of the P. W. D office

72 Estimate for painting walls of the Record room Revenue Board office.

73. Plan & Estimate amounting to Rs 23,000 for the Collectors residence at Chatrapur

74 Estimate for repairing compound wall at the School of arts

75 Three Estimates for alterations & repairs to the Madras Observatory

76 Estimate for the purchase of Brick presses at the Brickfields

77 Plan & Estimate for trough for the Trevelyan Drinking fountains

78 do——do— for covered passage officers bath room P. W. D offices Chepak

79 Estimate for additional works required at the College of Engineering

80 —do— for Repairs to Senate House

81 Supplemental Repair Estimate for Amir Mahal

82. Estimate for urgent repairs to the out houses to Wallajah Bangh House

83 Plan & Estimate for additions to the Lying in Hospital

84 Estimate for Manufacturing bricks, tiles &c at the Government Brickfields for 1889. 90.

85 —do— for putting pan locks to the Revenue Board Office rooms.

86. Plan of Superintendents Quarters Victoria Hospital

87 Plans & Report with the Specification of the Combined Post & Telegraph Office Madras

J. W. Brassington
Consulting Architect
to Government.

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178 177

179

PWC No 5125

Public Works Department.

From

THE CONSULTING ARCHITECT

TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D

No. 314.

Dated 5 June 1889

Received 6-6-89

No. OF ENCLOSURES. 1

Subject.

Submitting a Report on the administrative & executive Architect Division for 1888-89.

[C. No. 8.]

2436
178

GOVT. OF MADRAS. } 1889. { P. W. DEPT.

EXAMINER, P. W. ACCOUNTS.

Madras, 21 August 188

OFFICE NOTE No. 1211

To

W.

Your office note Nos.3283 C.and 3580 C.dated 18th.July and 8th.August 1889 respectively.

The Administration Report General Branch is herewith returned.

2. The figures for the statement in para 2 have been filled in, and the remaining figures have been checked and and corrected where necessary.

C.

KEEP-WITH Genl. No.

dated 188 .

2,000 - 9-10-88.

164

PWO No: 7853

1922.8.89

Public Works Department.

2426/79

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following

From the Supdg Engr 1 Circle No. to 1211 dated 6th June 1889.
" do . . 107 ½ . " 10th June 1889.
" do . . - . " 10 June 1889.
" do . . - . " 10 June 1889.
" do . . 169 Rs . " 22 June 1889.
" do II . . - . " 6th June 1889.
" do III . . - . " 31 May 1
" do IV . . 2416 W . " 28th May 1
" do V . . 2696 . " 18th June
" do " . . 2676 . " 20th July
" do " . . 2349 . " 4th July 1889.
" do VI . . 4543 . " 29th May 1889.
" do " " . 103 R.N . " 10th June 1889.
" Consg. establishment Govt " 314 . " 5 June 1889.
" Examiner P.W. Accounts . 1211 . " 21st Aug

Administration Reports for the year 1888-89.

Recorded

Issued 3.9.89

2.9.89