II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

Ganjam.—The expenditure on repairs amounted to Rs. 997 against an allotment of Rs. 950.

Vizagapatam.—The expenditure on Repairs amounted to 3275 against a grant of 3,200.

Godavari (East).—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 512.

Bellary.—The apothecaries' quarters (double) at Bellary were finally completed and handed over for occupation The outlay amounted to Rs. 7,954 against a revised estimate of Rs. 7,856.

. The collar-makers and wheelers' shop at Bellary was finally completed during the year; estimate Rs. 5,663, outlay Rs. 5,663.

. The foundations of a new gun-shed for the Royal Artillery were partly excavated and materials collected; estimate Rs. 11,560, outlay Rs. 3,975.

. The foundations of the workshops for the arsenal at Bellary were excavated and concrete to a depth of $1\frac{3}{4}$ feet laid throughout. Materials were collected, and work was in good progress. The expenditure amounted to Rs. 6,888 against an allotment of Rs. 6,858. The estimate was under revision on account of certain alterations desired by the Military authorities.

. The under-mentioned minor new works were completed:

	Outlay. Rs.
(1) Fitting up new gate and raising compound wall of lock hospital ...	600
(2) Store-room for the forge S/1st Royal Artillery	147
(3) Cistern to receive drainage of European Infantry barracks ...	164
(4) Urinary for canteen G/2nd Royal Artillery	110
(5) Teakwood gratings for wash-house of the European Infantry barracks	110

. The total outlay under Repairs, Military, was Rs. 31,615. This sum was expended in the maintenance and repairs of the military buildings and roads, including the Barrackmaster'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 almost completed at a cost of Rs. 35,146 against an estimate of Rs. 35,850. The final completion was delayed owing to defects and omissions in the machinery sent out from England.

(2) Quarters for a barrack sergeant at Wellington were completed at an outlay of Rs. 7,099; estimate Rs. 7,348. A supplemental estimate of Rs. 346 was sanctioned and executed.

(3) A new magazine at Wellington was constructed; estimate Rs. 5,225, expenditure Rs. 4,867.

(4) Minor works; expenditure Rs. 3,978, allotment Rs. 3,758:
The principal works were—

Laying pipes from drinking-water cistern to station hospital; outlay Rs. 686.

Providing stands for 250 ammunition-boxes; outlay Rs. 435.

Making a flag-staff for General Officer Commanding, Southern District; outlay Rs. 268.

Alterations to Wellington barracks; outlay Rs. 909.

Constructing a masonry drain from barracks square to Engineer's office, Wellington, Rs. 475.

(5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. 6,143 and Rs. 22,273, respectively.

. **Coimbatore.**—The farrier sergeant's house at the Remount Depôt, Matigiri, was purchased for Rs. 1,514.

The following minor original works were completed during the year:

(1) Adding a linen room and verandah to the hospital at the Remount Depôt; estimate Rs. 216, outlay Rs. 162.
(2) Improvements to the hay-shed attached to the farm-stables at the Remount Depôt; estimate Rs. 1,260, outlay Rs. 997.
(3) Improvements to Mr. Maddock's quarters and out-houses at Matigiri; estimate Rs. 550, outlay Rs. 513.
(4) Constructing six water-troughs in the Remount Depôt; estimate Rs. 432, outlay Rs. 417.
(5) Rebuilding partition walls between the stall of horse-stables at the Remount Depôt; estimate Rs. 890, outlay Rs. 866.
(6) Constructing two tent lascars' huts at the Mettupálaiyam rest-house; estimate Rs. 335, outlay Rs. 332.

Repairs to military buildings at the Remount Depôt and to the rest-houses at Podanur and Mettupálaiyam were carried out at an outlay of Rs. 5,331.

. **West Coast.**—During the year supplemental estimates, amounting to Rs. 46,340, in connection with the project for accommodating troops at Malapuram, were sanctioned for (1) a new third block of barracks with wash-house and latrine, (2) improvements to the canteen, and (3) constructing drains.

The walls of the barracks were raised 10 feet and arch-work commenced; the walls of the wash-house were raised 7 feet, and the latrine was being roofed. The main walls of the canteen were raised to full height, and roofing of verandah was in progress. Fifty feet of open drains and three covered drains were finished. The total grant of Rs. 17,000 for the year was utilised.

The following incomplete works of the previous years were completed:

(1) Improvements to the elephant shed at Malapuram; estimate Rs. 2,060, outlay Rs. 1,916.
(2) A store-room for the Madras Infantry regiment at Quilon; estimate Rs. 9,334, outlay Rs. 7,299.

Eighteen minor works were carried out during the year at a cost of Rs. 8,411, the principal ones being—

(1) constructing markers' and stop-butts of the European Infantry at West Hill, Calicut; estimate Rs. 320, outlay Rs. 273;
(2) deepening a well in the camping ground, Malapuram; estimate Rs. 410, outlay Rs. 308;
(3) improving the well below married quarters, West Hill, Calicut; estimate Rs. 376, outlay Rs. 362;
(4) improving the park sergeant's quarters, Cannanore; estimate Rs. 806, outlay Rs. 731.
(5) alterations and additions to the recreation-room and canteen block of British Infantry at Cannanore; estimate Rs. 1,183, outlay Rs. 1,185;
(6) reconstructing a well in the Madras Infantry lines, Mangalore; estimate Rs. 467, outlay Rs. 225.

. The expenditure under Repairs, Military, amounted to Rs. 23,939 against an allotment of Rs. 28,369. The apparent short outlay was mainly due to the expenditure incurred on the cantonment roads at Quilon by the Chief Engineer, Travancore, viz., Rs. 3,937, not having been brought into account. There were also trifling savings on completed works.

. **Presidency.**—Work on the conversion of the racket court in Fort St. George into a covered gymnasium was continued and nearly completed at a cost of Rs. 9,754.

. The conversion of A. block family quarters, Fort St. George, into single men's barracks, &c., was also continued, and the work completed at a cost of Rs. 15,325 on an estimate of Rs. 15,877. The outlay during the year was Rs. 9,631.

. The conversion of the sergeants' mess and adjacent godowns into a latrine and lavatory for the above barrack was in progress on an estimate of Rs. 3,820.

. Improvements to the water-supply of Fort St. George, which had been nearly completed in 1886-87, were carried out to completion.

. The conversion of staff sergeants' quarters into a school-house for the Native Infantry, Perambúr, was in progress, and Rs. 1,265 were spent in the year.

. Alterations and improvements to the drains at the Body Guard lines, Madras, were carried out at a cost of Rs. 1,286.

. A verandah was constructed to the officers' mess, Fort St. George, at a cost of Rs. 362, and servants' quarters were built to each of the Commissariat sub-conductors' quarters at the Ordnance lines, Madras, at an outlay of Rs. 1,048.

. The additions to the wash-houses at the parade barracks, Bangalore, were continued, and the work was completed at an outlay of Rs. 11,737 on an estimate of Rs. 12,500. The year's expenditure was Rs. 1,017.

. The construction of public buildings for a regiment of Native Infantry at the Arab lines was completed. The outlay was Rs. 21,903 on an estimate of Rs. 21,636. The year's expenditure was Rs. 6,715.

. The construction of station butchers' quarters was in progress on an estimate of Rs. 3,860. The work was almost completed at an outlay of Rs. 2,120.

. Twenty-five minor new works at the Presidency and twenty-three at Bangalore were completed at a cost of Rs. 12,173.

. One hundred and thirty-six repair works at the Presidency and 185 at Bangalore were carried out during the year. Payments were made to the Madras municipality of Rs. 15,287 on account of house, water and lighting taxes on Government military buildings outside Fort St. George, and of Rs. 6,000 on account of maintenance repairs of the esplanade and fort beach roads.

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

. The total outlay under Repairs, including barrackmaster's expenditure on petty repairs, compensation for quarters and payments made to the municipalities on account of taxes and maintenance grants was Rs. 94,521 at the Presidency and Rs. 66,545 at Bangalore.

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

(1) repairing the walls and floors of the military prison, Fort St. George; estimate Rs. 2,875, expenditure Rs. 2,665;
(2) general repairs to the Perambúr Native Infantry lines; estimate Rs. 5,570, expenditure Rs. 5,656;
(3) thorough repairs to the officers' mess-house, Fort St. George; estimate Rs. 4,945, expenditure Rs. 2,157;
(4) repairing ceilings of the armoury, Grand Arsenal, Fort St. George; estimate Rs. 3,100, expenditure Rs. 1,649;
(5) making thorough repairs to the Government granary of the Commissariat Department; estimate Rs. 8,800, expenditure Rs. 1,105;
(6) plastering with cement the exterior face of the enciente of Fort St. George from north to St. George's gate; estimate Rs. 2,970, expenditure Rs. 2,679;
(7) painting doors and windows of the parade barracks, Bangalore; estimate Rs. 7,280, expenditure Rs. 5,871;
(8) whitewashing the buildings in parade barracks; estimate Rs. 2,990, expenditure Rs. 2,830;
(9) whitewashing and wood-oiling all buildings at the Agaram cavalry barracks; estimate Rs. 5,090, expenditure Rs. 4,541.
(10) substituting Basel Mission tile-roof for ordinary tiled-roof to one single and one double row of stalls at the Agaram cavalry barracks; estimate Rs. 3,675, expenditure Rs. 4,371.
(11) whitewashing and wood-oiling the Agaram Royal Artillery barracks; estimate Rs. 3,710, expenditure Rs. 3,087.

. **Chingleput.**—A coffee shop, with kitchen, for the upper story barracks at St. Thomas' Mount, commenced in 1886-87, was completed at an outlay of Rs. 6,870 on an estimate of Rs. 6,690.

. Eleven cook-houses attached to the family quarters of the P/1st and Q/1st Royal Artillery, Mount, were taken down and rebuilt on an estimate of Rs. 2,970, and the work was completed at an outlay of Rs. 2,986.

. Alterations and improvements to the barrel racks at the reserve powder magazine, Mount, were commenced, and an expenditure of Rs. 882 was incurred. The work had to be deferred pending removal of the powder by the Military Department.

. Seven minor new works were completed at a cost of Rs. 1,601.

. Repairs to 15 buildings and several minor repairs, costing less than Rs. 500 each, were carried out at a total expenditure of Rs. 17,206, and the roads in the cantonments of Mount, Pallávaram, and Poonamallee, were maintained at an outlay of Rs. 3,814. The total expenditure under Repairs, including Barrackmaster's petty repairs, compensation for quarters, &c., was Rs. 28,316.

. The more important of the repairs were—

(1) repairing the roof of 11 barracks at Pallávaram; estimate Rs. 1,025, expenditure Rs. 979;
(2) repairing station hospital and its out-houses, Poonamallee; estimate Rs. 910, expenditure Rs. 818;
(3) repairing the sun-shades in the family quarters, Nos. 20 and 27, of Q/1st Royal Artillery, Mount; estimate Rs. 915, expenditure Rs. 873;
(4) repairing the sick lines stables at Mount; estimate Rs. 1,340, expenditure Rs. 1,257;
(5) repairing white and colour-washing west barracks and out-houses of 2nd Brigade, Royal Artillery, Mount; estimate Rs. 3,880, expenditure Rs. 2,279;
(6) repairing white and colour-washing, No. 66, female hospital, Mount; estimate Rs. 1,135, expenditure Rs. 754.

. **North Arcot.**—A sum of Rs. 2,438 was spent under Repairs, including the usual annual contribution of Rs. 1,000 to the municipality on account of maintenance of Vellore cantonment roads.

. **Trichinopoly.**—Construction of public buildings for a regiment of Native Infantry. The magazine and cells, which were incomplete at the close of the preceding year, were completed at an outlay of Rs. 2,495 against a grant of Rs. 2,340. The whole work was completed at a cost of Rs. 20,310 against an estimate of Rs. 20,155.

. Rupees 149 were spent in providing ammunition-boxes and Rs. 3,827 in maintaining cantonment roads and repairing military buildings.

II.—IMPERIAL—CIVIL WORKS.

Vizagapatam.—The post-office at Salúr was completed and handed over to the Postal Department. The total cost was Rs. 2,057 against an estimate of Rs. 2,000. The expenditure in the year was Rs. 1,746.

Repairs were executed to the post-offices at Vizagapatam and Narsapatam and to the telegraph office at Vizagapatam.

Godavari (East).—The telegraph office at Cocanada was repaired at a cost of Rs. 979 and the telegraph office at Rajahmundry at a cost of Rs. 219. A sum of Rs. 165 was spent on the post-office at Tuni.

Kistna (East).—A well in the compound of the post-office at Bezváda was completed during the year at a cost of Rs. 105.

The telegraph offices at Bezváda and Masulipatam were maintained in good order.

Kistna (West).—Iron-bars were fixed to the windows of the Duggirala post-office at a cost of Rs. 12.

Nellore.—The Sub-Postmaster's quarters, &c., at Gúdúr were completed, and the post-office at the same place was improved.

The post-offices at Kistnapatam and Gudur were repaired during the year.

Bellary.—The post-office at Anantapur was completed and handed over to the Postal Department. The expenditure amounted to Rs. 4,414 against an estimate of Rs. 4,051.

A compound wall was built to the post-office at Adóni at a cost of Rs. 113.

Coimbatore.—The late Munsif's court-house at Dharmapuri was converted into a post-office and Postmaster's quarters at an outlay of Rs. 636; estimate Rs. 652.

Repairs to three post-offices were carried out during the year at a cost of Rs. 102.

Nilgiris.—Improvements to the post-office at Kótagiri were carried out at a cost of Rs. 790.

Rupees 590 were spent on repairs, postal, and Rs. 117 on repairs, telegraph, buildings.

West Coast.—Certain vacant buildings in the fort at Tellicherry (late district jail) were converted into a post-office and Postmaster's quarters at an outlay of Rs. 2,613 against an estimate of Rs. 2,335.

The windows and doors of the post-office at Vayitri were iron-barred at a cost of Rs. 172.

Rupees 527 were spent in repairs to seven postal buildings.

Presidency.—A few small works were undertaken, viz.:

(1) Adding a room to the Imperial post-office at Hunsur; outlay Rs. 172.
(2) Improvements to the Mysore post-office; outlay Rs. 914.

The following repairs were carried out:

(1) Whitewashing and repairing the telegraph office, Bangalore; expenditure Rs. 492.
(2) General repairs to the telegraph stores, Black Town, Madras; expenditure Rs. 639.
(3) Whitewashing the general post-office; Bangalore, expenditure Rs. 244.

North Arcot.—The post-office at Chittoor was enlarged at a cost of Rs. 353.

A sum of Rs. 291 was spent on repairs to the Postmaster's quarters in the Vellore fort and on repairs, &c., to the Stipend pay office to adapt it for the use of the combined post and telegraph office.

South Arcot.—Quarters for the Deputy Postmaster at Tindivanam were completed at an outlay of Rs. 579.

Rupees 167 were spent on repairs to the office of the Superintendent of Post-office, Cuddalore Division.

Trichinopoly.—Improvements to the combined post-office at Trichinopoly fort and to the post-office at Musiri were carried out at an outlay of Rs. 343.

Tanjore.—The addition of a bath-room and verandah to the post-office at Tanjore was completed at a cost of Rs. 260, and the extension of the post-office at Kumbakónam for the accommodation of the telegraph office was completed at a cost of Rs. 1,028, of which Rs. 874 were spent during the preceding year. The post-office at Tanjore was also repaired at an outlay of Rs. 110.

Negapatam.—Repairs to the post-offices at Patukota and Mimmesel were completed at a cost of Rs. 558.

Madura.—Rupees 634 were spent in completing the new post-office at Butlagundu, on which Rs. 939 were laid out in the preceding year against an estimate of Rs. 1,340. A police station-house at Vedasandúr was converted into a post-office at an outlay of Rs. 75. The British post-office at Peermede and Postmaster's quarters at Periyakulam were repaired at a cost of Rs. 83.

Tinnevelly.—The telegraph office at Tuticorin was repaired at a cost of Rs. 468, and the post-offices at Tenkarai, Satúr, Nagarcovil, Vasudevanallúr, and Srívaikuntham were repaired at an outlay of Rs. 826.

III.—PROVINCIAL—CIVIL BUILDINGS.

Ganjam.—A building at Russelkonda was purchased for Rs. 1,000 as an office for the Deputy Collector.

Repairs to the following works were executed during the year:

(1) Collector's house at Chatrapur.
(2) Police magazine at Chatrapur.
(3) Subdivisional office at Russelkonda.
(4) Out-houses of Collector's bungalow at Chatrapur.
(5) Improvements to the treasury room at Chatrapur.

The total cost of repairs was Rs. 2,620.

Vizagapatam.—The bungalow and out-houses for the Assistant Superintendent of Police, Jeypore, was completed at a cost of Rs. 15,378, against a revised estimate of Rs. 15,350. The outlay during the year was Rs. 310. The building was finally handed over to the Police Department on 31st March 1888.

The following works were in progress:

(1) Additional accommodation to the Huzur treasury at Vizagapatam; estimate Rs. 9,360, including a supplementary estimate of Rs. 490, outlay Rs. 9,196; a second supplementary estimate of Rs. 530 was subsequently sanctioned.
(2) The police station at Koraput, an incomplete work of the previous year, was completed with the exception of the asphalte flooring to the two cells and some other trifling work. The total expenditure was Rs. 4,523 against an estimate of Rs. 3,895; the outlay for the year being Rs. 2,444 against an allotment of Rs. 2,100.
(3) Additions and alterations to the Deputy Tahsildar's office at Pálkondah and constructing a second-class police station-house in the compound. The work was completed, but accounts were not fully closed. The estimated cost of the work was Rs. 4,920, previous outlay Rs. 1,876. Outlay during the year under review Rs. 2,769.
(4) Constructing an hospital at Gunupuram; revised estimate Rs. 4,020, expenditure Rs. 2,040. This was expended on the wood-work. Work was not commenced, as the site was not settled until the end of the year.
(5) Constructing 34 reserve police huts at Koraput; estimate Rs. 14,800, expenditure Rs. 1,166.
(6) Completing the Sub-Magistrate's cutcherry with sub-jail at Potinghi. An iron roof was purchased for Rs. 3,316 against an allotment of Rs. 3,400.
(7) Second-class police station-house at Komarada; estimate Rs. 1,520. The work was completed at a cost of Rs. 1,506. Rs. 1,080 was expended during the year.
(8) Additions to the Deputy Tahsildar's office at Bimlipatam were completed at a cost of Rs. 1,125 against an estimate of Rs. 1,040.
(9) An iron safe for the treasury at Potinghi was made at a cost of Rs. 274.
(10) Alterations were carried out to the kitchens and latrines of the lunatic asylum at Waltair at a cost of Rs. 176 against an estimate of Rs. 192.

The lunatic asylum at Waltair was repaired at a cost of Rs. 1,525 and six minor works at a cost of Rs. 714.

Godavari (East).—Additions to Collector's cutcherry, Cocanada. This work was practically finished during the preceding year. The old buildings near the

Collector's cutcherry were dismantled and the sale-proceeds, which amounted to Rs. 1,272, were credited to the work. The total cost of the new buildings was Rs. 36,861 against an estimate of Rs. 31,870.

New court-house, Rajahmundry. Some furniture was purchased at a cost of Rs. 1,077. The total outlay on the main building and subsidiary works amounted to Rs. 41,938 against an estimate of Rs. 42,200.

The Sub-Magistrate's cutcherry, Pittapuram, was completed during the year, and formally handed over in December 1887. The total cost of the building was Rs. 10,656 against an estimate of Rs. 8,983.

The Sub-Magistrate's cutcherry at Tuni was completed and handed over to the Sub-Magistrate in December 1887. The cost of the building was Rs. 9,692 against an estimate of Rs. 9,436. Rupees 2,436 were expended during the year.

The outlay on the church at Cocanada to end of the year, against the Government grant-in-aid of Rs. 6,000, was Rs. 5,199.

Water-supply and improvements to the existing drainage of the central jail, Rajahmundry. The improvements were finished, with the exception of roof over the well which was in progress in the Dowlaishweram workshops. The expenditure to end of the year was Rs. 31,391 against an estimate of Rs. 33,030.

A bath-room for the Principal of the Provincial College, Rajahmundry, was completed at a cost of Rs. 427.

The main building of the dispensary at Bhádrachallam was completed, and the out-houses were almost finished. A well was dug to a depth of 33 feet. The outlay during the year was Rs. 2,470 against an estimate of Rs. 4,246.

Quarters for the hospital assistant, Public Works Department, at Dowlaishwearam, were completed at a cost of Rs. 610.

A Registrar's office, Cocanada, was completed during the year and handed over to the District Registrar. The cost of the building was Rs. 4,802 against Rs. 4,700.

The main building of the Executive Engineer's quarters, Dowlaishweram, was completed. The total expenditure amounted to Rs. 14,929 against an estimate of Rs. 12,500.

A well for the Superintending and Executive Engineer's houses was completed at a cost of Rs. 564 against the estimate of Rs. 500.

Major Brockman's house and land at Dowlaishweram were purchased for Rs. 2,530.

A portion of the roof of Trinity church at Rajahmundry was repaired, and minor repairs were carried out to other buildings.

Godavari (Central).—The Sub-Registrar's office at Razole was completed at a cost of Rs. 2,768 against an estimate of Rs. 2,750, and handed over. Rs. 563 were expended during the year.

The subdivision office at Gunnaram was repaired.

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

	Estimate. Rs.	Outlay. Rs.
(1) Sub-Registrar's office at Pentapad	2,710	2,694
(2) Cook-house to Executive Engineer's bungalow at Chettipet completed	500	536
(3) Constructing 1st-class taluk cutcherry at Tanuku, nearly completed. Revised estimate submitted	21,420	24,648
(4) Constructing 1st-class taluk cutcherry at Bhímavaram, nearly completed	22,650	24,434
(5) Constructing 1st-class taluk cutcherry at Narasapur; materials were collected and foundations dug, but the work was stopped pending sanction to a revised estimate	22,900	14,076
(6) Sub-Registrar's office at Tanuku, nearly completed ...	3,090	3,044
(7) Do. do. at Ellore; materials were collected and the wood-work was under preparation	2,540	1,930

Kistna (East).—Repairs to the Collector's residence at Masulipatam were in progress; estimate Rs. 14,305, expenditure Rs. 6,391. Out of an allotment of Rs. 7,000, only Rs. 4,482 were expended for wood-work, which, however, did not reach Masulipatam in time to be put up during the year. Work was also retarded owing to non-receipt of Portland cement which the Madras company could not supply till May 1888.

Two head constables, and ten constables' huts at Bezváda were commenced, and all masonry work was completed; tiles and bamboos were procured, and the roofs of two huts put on; estimate Rs. 4,538. The expenditure during the year was Rs. 2,003 against a grant of Rs. 2,000.

A treasury office in front of treasury room in the compound of the Gudiváda taluk cutcherry was completed; Rs. 1,149 were spent against an estimate of Rs. 1,300.

The following buildings were repaired during the year:

(1) Kistna Eastern Division office.
(2) Superintending Engineer's residence and office.
(3) Northern subdivision office.
(4) Bungalow on Colonel Orr's Hill at Bezváda.
(5) Dutch graves, tomb-stone of Dutch chief and French cemetery.

Kistna (West).—Rs. 1,000 were spent in collecting materials for the Sub-Registrar's office at Bápatla.

Materials to the extent of Rs. 406 were collected during the year for the Karampudi District Munsif's court-house. The allotment was given late in the year.

Nellore.—The following works were completed during the year:

(1) Improvements to the Sub-Collector's bungalow, Ongole.
(2) Horse-stable with coach-house at the Division office.

The district jail at Nellore was in progress; the grant of Rs. 2,948 was exceeded by Rs. 2,080 owing to trusses having been ordered in the workshops in anticipation of sanction to additional funds, which were, however, not made available.

Repairs to the following buildings were attended to—

(1) Police station-house at Naidupett;
(2) Assistant Superintendent's bungalow at Ongole;
(3) Hill bungalow at Ongole;
(4) Sub-Collector's bungalow at Ongole;
(5) Taluk cutcherry and subsidiary jail at Kandukúr;
(6) Collector's bungalow at Nellore;
(7) Bungalow at Kodavalur;
(8) Christ church, Nellore;
(9) Assistant Superintendent's office at Ongole..

Bellary.—The Collector's office at Anantapur was completed and handed over to the Revenue Department in January 1888. The accounts were not closed as some chicks required by the Collector had to be supplied. The expenditure on the work amounted to Rs. 63,427 against an estimate of Rs. 64,290.

. Improvements to the Collector's office at Bellary were in progress. The walls of the upper story in both wings were raised to full height and door-frames fixed. The work was much delayed on account of contractor's timber being detained at Guntakal junction railway station.

. The superstructure of the Collector's residence at Anantapur was raised to about 6 feet above basement, and door and window-frames were fixed. The expenditure amounted to Rs. 23,758 against an estimate of Rs. 28,190.

. The police huts at Vanavole were brought up to basement level and materials collected. The expenditure amounted to Rs. 600 against an estimate of Rs. 2,928. The work was for some time at a standstill owing to sickness amongst work-people who deserted the work.

The under mentioned minor new works were carried out:

(1) Additional out houses for the Head Assistant Collector's bungalow; estimate Rs. 640, outlay Rs. 114.
(2) Re-roofing a portion of the store-shed at the engineer's yard; estimate Rs. 1,500, outlay Rs. 1,710.
(3) Horbury's patent privy for the combined Executive Engineer's and Superintending Engineer's office in the fort; estimate Rs. 185, outlay Rs. 179.

The Munsif's court at Penukondah, the Roman-Catholic chapel, the Roman-Catholic cemetery, the garrison church, the military cemetery, the fort church, the taluk cutcherry at Penukondah and several other civil buildings were repaired during the year at a total cost of Rs. 6,960.

Eradication of vegetation and minor repairs to the temples at Hampi, Neelagunda and Heraihadgally were attended to; outlay Rs. 120.

Cuddapah.—Of the sanctioned additions and alterations to the district jail at Cuddapah, three male wards were completed. The fourth was also completed except flooring and pointing walls built; and gratings and iron-doors put up to the fifth. The expenditure amounted to Rs. 23,903 against a revised estimate of Rs. 31,900.

The Collector's office at Cuddapah was in progress. Interior arches were built and verandah arches commenced. All walls were built 14 feet high and girders were being raised. The expenditure amounted to Rs. 81,960 against an estimate of Rs. 1,43,741.

The walls of the Registrar's office at Cuddapah were built and beams and joists put up for the roof. Roofing was commenced and doors and windows were ready. Estimate Rs. 5,192, outlay Rs. 3,899.

Roofing to the taluk office at Váyalpád was completed, except the sub-jail. Wooden tower, fixing of doors and windows, painting and wood-oiling remained to complete. The expenditure amounted to Rs. 19,915 against an estimate of Rs. 25,700.

Materials were being collected for the taluk office at Rajampett. The original allotment of Rs. 10,000 for this work had to be reduced to Rs. 2,700, owing to the prevalence of cholera, which prevented the commencement of the work.

The taluk office at Pulivendla was completed. The expenditure amounted to Rs. 23,610 against an estimate of Rs. 23,443.

The under-mentioned minor new works were carried out during the year:

	Estimate.	Outlay.
	Rs.	Rs.
(1) Sub-Registrar's office, Váyalpád	2,435	48
(2) Do. do. at Chitvél	2,040	259
(3) Improvements to Nandalúr Munsif's court	992	726

Kurnool.—Work on the taluk office at Nandyál was in progress. The expenditure amounted to Rs. 24,637 against an estimate of Rs. 34,676.

Nine constables' huts at Pattikonda were in progress. The outlay during the year amounted to Rs. 1,298 against an estimate of Rs. 2,903.

Nilgiris.—Rupees 14,077 were spent on additions and improvements to Government House at Ootacamund; the principal items of expenditure being—

	Rs.
Furniture	4,671
General horticultural improvements	970
Providing lightning conductors	1,130
Additions to coach-house	4,217
Erecting screen walls to servants' quarters	1,081
Piping water-supply	1,785

Good progress was made during the year on the repairs to the Mountstuart property, and an outlay of Rs. 9,139 was incurred. The total outlay was Rs. 16,646 against an estimate of Rs. 19,945.

. The combined Bench Magistrate's court at Kótagiri was completed during the year at a cost of Rs. 8,620 against an estimate of Rs. 8,060. Expenditure during the year Rs. 3,179.

. The new building for the Breeks' Memorial School, for which a revised estimate had to be submitted, was also completed and opened in March. Outlay for the year Rs. 25,276.

. A new police-station was built at Naduvattam. The expenditure during the year was Rs. 3,076 and the total outlay Rs. 4,031 against an estimate of Rs. 4,110.

. The Roman-Catholic church at Wellington was completed for the amount of the Government grant. The expenditure during the year was Rs. 16,863 and the total outlay was Rs. 23,863 against an estimate of Rs. 33,576.

. Other important works were—

(1) improving police-station and huts at Masingudi; estimate Rs. 3,020, outlay Rs. 2,833;
(2) repairing Curator's house in Government gardens, Ootacamund; estimate Rs. 2,805, outlay Rs. 2,823;
(3) alterations and improvements to the district jail at Ootacamund for the accommodation of public offices and for the apothecary attached to Army head-quarters; estimate Rs. 2,950, outlay Rs. 2,205;
(4) rupees 3,000 were spent in collecting materials for the conversion of the old Breeks' Memorial School into a Sub-Judge's court;
(5) the outlay on minor works during the year was Rs. 15,140.

The following are the principal works:

		Rs.
(1)	Providing lightning conductors to—	
	St. Stephen's church, Ootacamund	720
	Mountstuart buildings, Ootacamund	680
	Government Office, Stonehouses	801
	Council Chamber, Ootacamund	365
	St. Thomas' church, Ootacamund	537
(2)	Enclosing Wellington cemetery with a wire fence ...	660
(3)	Extending and improving police huts at Pykara ...	1,593
(4)	Do. do. at Kalhatti ...	1,300
(5)	Improving the roof of St. Stephen's church, Ootacamund...	1,318
(6)	Supplying partitions and record-racks to offices on Mountstuart	1,117
(7)	Widening and raising the clock-turret on Stonehouse Hill	1,011
(8)	Renewing roof of Clerks' offices on Stonehouse Hill ...	1,456

. A sum of Rs. 23,841 was spent on repairs, the chief items being—

(1)	repairs to police lines at Ootacamund	3,161
(2)	repairs to Government House	10,991

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

(1) Constructing a District Forest office at Coimbatore; estimate Rs. 10,110 outlay Rs. 9,450.
(2) Constructing close prison at Coimbatore; estimate Rs. 19,582, expenditure Rs. 12,054; outlay during the year Rs. 337. The apparent saving was due to convict labor supplied by the Jail Department free of cost, estimated at Rs. 6,461 and to purchase of locks in England by the Inspector-General of Jails, Rs. 912.
(3) additions and alterations to the quarters of the Superintendent of the Central Jail at Salem; estimate Rs. 3,600; expenditure Rs. 3,727, outlay during the year Rs. 1,123.
(4) constructing quarters for the Deputy Jailor attached to the central jail at Salem; estimate Rs. 3,660, expenditure Rs. 3,691, outlay during the year Rs. 839.
(5) improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure Rs. 5,148, outlay during the year Rs. 674, exclusive of convict labor estimated at Rs. 740.

(6) rebuilding a portion of the District Munsif's court-house at Namkal; estimate Rs. 3,595, expenditure Rs. 3,734, outlay during the year Rs. 1,220.

(7) purchase of and improvements to a building at Tirupatúr for a residence for the Assistant Superintendent of Police; estimate Rs. 4,768, expenditure Rs. 4,768.

(8) constructing a Sub-Registrar's office at Hosúr; estimate Rs. 2,970, expenditure Rs. 2,871, outlay during the year Rs. 275.

. A Sub-Registrar's office at Kollegál was in progress; estimate Rs. 2,630, outlay Rs. 900.

. Fifteen minor new works, on which a sum of Rs. 5,538 was spent, were in progress, of which ten were completed, viz.:

				Rs.
(1)	Supplying and fitting iron-safes to	Coimbatore	taluk treasury ...	410
(2)	Do. do.	Palládam	do. do. ...	870
(3)	Do. do.	Kollegál	do. do. ...	438
(4)	Do. do.	Bhávani	do. do. ...	435
(5)	Do. do.	Karúr	do. do. ...	869
(6)	Do. do.	Sathyamangalam	taluk treasury.	881
(7)	Do. do.	Uttankarai	do. do.	243
(8)	Do. do.	Yercaud	do. do.	226
(9)	Improvements to the new treasury room at Salem			90

(10) Constructing a Sub-Registrar's office and compound wall at Tiruchengód; estimate Rs. 2,265, expenditure Rs. 2,288, outlay during the year Rs. 626.

A sum of Rs. 5,966 was spent on repairs, the chief items being—

(1) repairing the women's ward of the central jail, Coimbatore, outlay Rs. 719.

(2) repairing the hospital and out-houses attached to the central jail, Coimbatore, outlay Rs. 2,543.

(3) repairing the out-houses attached to the Collector's bungalow at Salem, outlay Rs. 1,027.

(4) repairs to the taluk cutcherry at Tripatúr, Rs. 267.

(5) repairs to the Sub-Collector's bungalow at Erode, outlay Rs. 300.

. **West Coast.**—During the year supplemental estimates, amounting to Rs. 13,494, were sanctioned for completing the Law Courts at Calicut, bringing the total of the revised estimate to Rs. 1,20,200. The only items of work taken up were strengthening the vakils' chambers, constructing surplus drains and collecting materials for sun-shades. The aggregate expenditure up to date was Rs. 1,07,107.

. The new public offices at Pónani were completed, except the latrine, of which the superstructure to the level of 2 feet above the crown of arches was finished. Outlay during the year Rs. 14,599.

. The main buildings were made over to the respective departments.

. The residence for the Assistant Superintendent of Police at Malapuram begun in the previous year was completed, with the exception of punkhas and mats and deepening the well. The year's outlay was Rs. 5,378, bringing the total expenditure to Rs. 12,600 against an estimate of Rs. 13,660.

. The following works were completed:

(1) Improving the Government church, Cochin; estimate Rupees 20,680, outlay Rs. 20,177.

(2) Sub-Registrar's office at Chevayur; estimate Rupees 3,020, outlay Rs. 2,923.

(3) Sub-Registrar's office, Puthur; estimate Rs. 3,120, outlay Rs. 3,097.

(4) Sub-Registrar's office, Udipi; estimate Rs. 3,370, outlay Rs. 3,514.

(5) Sub-Registrar's office, Mannarghat; estimate Rupees 2,450, outlay Rs. 2,338.

(6) Additions to the old jail buildings in the fort at Tellicherry to fit them for use as Sub-Collector's cutcherry; estimate Rs. 2,710, outlay Rs. 2,518.

(7) Improvements to the Munsif's court at Perpanangadi; estimate Rs. 1,534, outlay Rs. 1,417.

(8) Supplemental work to the conversion of sweepers' quarters into patients' wards at the Lunatic Asylum, Calicut; outlay Rs. 4,135.

(9) Providing lightning conductors to the turret of the District Munsif's court, Tellicherry; estimate Rs. 360, outlay Rs. 341.

(10) Improving the clerks' room, District Munsif's court, Tellicherry; estimate Rs. 495, outlay Rs. 544.

(11) Improvements to Pálghat treasury room; estimate Rs. 247, outlay Rs. 245.

. The following works were in progress:

(1) Sub-Registrar's office at Koduvayur; estimate Rs. 2,940, outlay Rs. 1,471.

(2) A new Sea Customs-house at Cochin; estimate Rs. 17,940, outlay Rs. 5,491.

(3) Additions and improvements to the office of Superintendent of Police at Mangalore; estimate Rs. 10,383, outlay (including previous year's expenditure) Rs. 8,849.

. Furniture was designed by the Executive Engineer for the Malapuram church towards the close of the year, and a few items of it ordered from Madras, the rest being made at the Mission carpentry establishment locally. Rs. 383 were expended against an estimate of Rs. 600.

. A sum of Rs. 8,025 was spent on repairs, the following being the principal works:

	Rs.
(1) Division office, Calicut	510
(2) Lunatic asylum, Calicut	1,429
(3) Protestant church, West Hill barracks, Calicut	102
(4) Repairs to roof of the new Sea Customs-house, Calicut	400
(5) Repairs to the roof of St. John's church at Cannanore	1,617
(6) Rebuilding the turret of the District Munsif's court at Tellicherry.	308

. **Presidency.**—A racket court and swimming bath were constructed at Government House at a cost of Rs. 2,434 and Rs. 3,875, respectively.

. An upper story was built and improvements were carried out to the Aide-de-Camp's quarters at Government House, Madras, at a cost of Rs. 11,988.

. The construction of City reserve police lines at Pudupet, commenced in the previous year, was completed. The outlay during the year was Rs. 21,500. The total outlay was Rs. 26,961 against an estimate of Rs. 27,785.

. The construction of an upper story to the office of the Deputy Commissioner of Police was completed. The total expenditure was Rs. 9,859 against an estimate of Rs. 10,290.

. At the Medical College, Madras, the construction of a lecture theatre hall, estimate Rs. 7,175, and of a dissecting shed, estimate Rs. 6,005, were completed during the year. The expenditure was Rs. 7,620 and Rs. 6,459, respectively.

. At the Madras Penitentiary new roofs to the close prison cells, estimate Rs. 11,200; a new work-shed, estimate Rs. 3,200; and quarters for two hospital assistants, estimate Rs. 5,774, were completed during the year at a total outlay of Rs. 9,177, Rs. 2,892, and Rs. 5,501, respectively.

. The new gate to the St. Mary's cemetery, Madras, commenced in the previous year, was completed at a total cost of Rs. 5,611 on an estimate of Rs. 6,285. The year's expenditure was Rs. 2,309.

. Rupees 409 were spent in providing new seats for St. Matthias' church at Vepery.

. The ornamental ceilings of St. George's cathedral were completed at an outlay of Rs. 2,486 on an estimate of Rs. 2,711.

. A sum of Rs. 5,020 was spent on furniture for Government Houses at Madras, Guindy, and Ootacamund.

. Thirty-two minor new works were carried out at a cost of Rs. 7,975.

. Rupees 936 were paid on account of compensation for sittings provided for Roman-Catholic British soldiers in the cathedral at Madras during 1885-86 and Rs. 333 on account of compensation for sittings provided for British soldiers and their families in the Wesleyan chapel at Bangalore during 1886-87.

. One hundred and twenty-seven repair works at Madras and fifteen at Bangalore were carried out.

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

(1) Repairs to Banqueting Hall and Marine Villa with out-houses; estimate Rs. 5,700, outlay Rs. 5,710.

(2) Plastering with cement the outside of the Government Secretariat office, Fort St. George; estimate Rs. 11,070, outlay Rs. 7,362.

(3) Repairing tombs in St. Mary's cemetery; estimate Rs. 2,685, outlay Rs. 2,352.

(4) General repairs to the Civil Orphan Asylum buildings; estimate Rs. 16,540, outlay Rs. 7,215.

(5) General repairs to the Public Works Workshops and Stores; estimate Rs. 9,392, outlay Rs. 4,499.

(6) General repairs to the General Hospital, Madras; estimate Rs. 3,025, outlay Rs. 2,886.

. **Chingleput.**—A lightning conductor to the Agricultural College at Saidápet was fixed at a cost of Rs. 2,240. The whole expenditure on the college, the upper story of which (except tower) had been completed at the end of 1886-87, was Rs. 18,336.

. The construction of waiting and tiffin-rooms for the students of the Agricultural College was in progress on an estimate of Rs. 3,500, and Rs. 2,556 were spent during the year.

. Six minor new works were completed at a total cost of Rs. 2,988.

. The buildings at Government House, Guindy Park, and other buildings, churches, &c., were repaired at a total outlay of Rs. 15,586.

. **North Arcot.**—The Sub-Magistrate's cutcherry, with out-houses, at Arkónam commenced in 1886-87 was completed. The expenditure was Rs. 14,733 on an estimate of Rs. 14,245. The year's outlay was Rs. 6,547.

. Improvements to the Sub-Magistrate's office at Punganúr, also commenced in 1886-87, were completed. The expenditure was Rs. 3,849 on an estimate of Rs. 4,480; the saving was due to an existing sub-jail being utilised instead of building a new sub-jail provided for in the estimate.

. Four minor new works were in progress, of which three were completed. The expenditure was Rs. 2,671.

. Seven repair works were carried out at a cost of Rs. 1,916.

. **South Arcot.**—The Sub-Registrar's office at Villupuram, commenced in 1886-87, was completed at a cost of Rs. 2,760 on an estimate of Rs. 3,274.

. **Consulting Architect.**—The provision of an intermediate floor in the library of the Presidency College was commenced on an estimate of Rs. 7,651 and Rs. 827 were expended.

. The foundations for the columns to support the floor were laid and the columns were indented for through the India Office.

. Alterations and additions to the Ameer Mahal were carried out at a cost of Rs. 3,760.

. Rupees 5,196 were spent on twenty-nine minor works, the most important of which consisted in renewing the ornamental parapet on the north side of the Revenue Board Office with stone, providing a second boat made of wood for the floating latrine, and constructing a shed at the School of Arts.

. Rupees 15,150 were spent on annual and general repairs to buildings.

. **Trichinopoly.**—The construction of the district jail at Trichinopoly made satisfactory progress: block No. 3 A (36 cells) superstructure, arches and concrete to spandrils were completed; No. 3 B (22 cells) superstructure raised to an average of 3 feet; entrance gate superstructure raised to 3 feet; iron railings fixed; two gates fixed in position; and cut stone work on the side of gate in progress. The expenditure during the year was Rs. 18,938, and the total outlay Rs. 70,405 against a revised estimate of Rs. 85,244.

. Quarters for the European chief constable, central jail, Trichinopoly, were nearly completed; estimate Rs. 1,860, expenditure Rs. 1,695.

. A compound wall for the District Munsif's court at Kulitalai was completed at a cost of Rs. 1,455 against an estimate of Rs. 1,450.

. A compound wall and latrine for District Munsif's court at Ariyalur were commenced; estimate Rs. 1,230, expenditure Rs. 388.

. Rupees 465 were spent in completing certain repairs to the central jail, on which Rs. 2,745 were laid out in the preceding year.

. **Tanjore.**—The combined court-house for the District Munsifs of Kumbakónam and Valangiman was in progress. The lower story was completed, with the exception of plastering inside work, and the upper story was in rapid progress; estimate Rs. 34,342, expenditure Rs. 24,470.

. Improvements to the taluk cutcherry at Máyavaram were in progress, but the work was delayed from various causes; the expenditure was Rs. 4,907 from a grant of Rs. 7,000; estimate Rs. 11,680.

. The police station-house at Kumbakónam was extended at a cost of Rs. 2,748 against an estimate of Rs. 2,700.

. A building for the police office at Tanjore was purchased at a cost of Rs. 5,750.

. The construction of a latrine with five seats of Horbury's pattern, and of a compound wall to the police station-house at Tanjore was nearly completed; estimate Rs. 700, expenditure Rs. 552.

. Fixing iron gratings and doors, &c., to the office of the Superintendent, District Jail, Tanjore, was completed at a cost of Rs. 411.

. Rupees 3,862 were spent on repairs to the district court-house, taluk cutcherry at Shiyáli and sub-jail and latrine at Nannilam.

. **Negapatam.**—Alterations to the St. Joseph's College buildings at Negapatam. The buildings were purchased in the preceding year for Rs. 30,000, and estimates, amounting to Rs. 22,490, were sanctioned during the year under review for alterations to adapt them for the accommodation of public offices. The following work was completed:

(1) Improvements to the rooms allotted for the District Munsif.
(2) Do. do. for office of Assistant Superintendent of Police.
(3) Do. to the Executive Engineer's office.
(4) Do. to the Sub-Judge's court.
(5) Do. to the Sub-Magistrate's office.
(6) Do. to the Sub-Registrar's office.
(7) Do. to peons' sheds.

. The following alterations were in progress:

(1) Office for Assistant Commissioner, Salt and Abkári Revenue.
(2) Police station.
(3) Office for Head Assistant Collector.
(4) Gate and compound wall.
(5) General improvements to main building.

The expenditure during the year was Rs. 7,938 against a grant of Rs. 8,000, and the total expenditure was Rs. 37,970 against an estimate of Rs. 52,490.

. Rupees 4,061 were spent on the collection of materials for the District Munsif's court at Tiruvalúr.

. Improvements to the District Munsif's court at Mannárgudi were in progress; estimate Rs. 5,010, expenditure Rs. 3,959.

. The Government cemetery at Negapatam was extended at a cost of Rs. 1,317 against an estimate of Rs. 1,200.

. The conversion of the Executive Engineer's office at Kadambady into a dwelling house was completed, with the exception of fencing the compound; estimate Rs. 1,950, expenditure Rs. 1,741.

. **Madura.**—The following works were completed during the year:

(1) Sub-Magistrate's cutcherry at Madura; estimate Rs. 17,889, expenditure Rs. 4,492 in addition to Rs. 14,889 spent to the end of the preceding year.

(2) A second-class police station-house and one head and five constables' huts at Sáptúr; estimate Rs. 4,850, expenditure Rs. 2,691 in addition to Rs. 2,086 to the end of 1886-87.

(3) A second-class station-house and one head and five constables' huts at Ammyanáyakanúr; estimate Rs. 3,850, expenditure Rs. 3,630.

(4) Improving Deputy Tahsildar's office at Tirushuli; estimate Rs. 4,240, expenditure Rs. 4,136.

(5) Repairs to the taluk cutcherry at Dindigul; estimate Rs. 3,200, expenditure Rs. 3,319.

(6) Improving the district jail at Madura; estimate Rs. 2,820, expenditure Rs. 2,801.

. The following buildings were in progress:

(1) Sub-Registrar's office at Tirumangalam; estimate Rs. 2,864, expenditure Rs. 2,407. Work completed with the exception of a small quantity of pointing, wood-oiling and flooring.

(2) A third-class police station-house and one head and five constables' huts at Veerapandy; estimate Rs. 2,930, expenditure Rs. 2,055. The huts were completed and materials for the station collected.

(3) A third-class station-house and one head and five constables' huts at Samayanallúr; estimate Rs. 2,690, expenditure Rs. 2,041. Walls of the station-house and huts nearly finished.

4)) District jail at Madura. Providing wire-netting to the roof ventilators of blocks and removing and renewing the existing palisades; estimate Rs. 4,482; expenditure Rs. 357.

(5) Subdivision officer's bungalow at Uthamapoliam was almost completed; estimate Rs. 1,500, expenditure Rs. 1,466.

. Rupees 1,059 were spent in maintaining the garden and improving the earth connection of the lightning conductor in Tirumal Naick's palace at Madura; in repairing Public Works office building and Sub-Collector's bungalow at Dindigul, store-shed at Periyakulam, taluk cutcherry at Meylur, Deputy Tahsildar's cutcherry and Sub-Registrar's office at Uthamapoliam; and in paying municipal tax for the Government buildings at Dindigul.

. **Tinnevelly.**—A new record-room and improvements to the district court-house at Kokarakulam were completed according to the original estimate; expenditure Rs. 16,893, including Rs. 12,183 spent up to 1886-87; revised estimate Rs. 21,030.

. The following minor works were completed during the year:

(1) Additions and alterations to the huzur treasury at Kokarakulam; expenditure Rs. 2,017.

(2) Sub-Registrar's office at Radapuram; expenditure Rs. 2,202, including Rs. 100 spent in the preceding year.

(3) Improving the Sub-Magistrate's office at Tuticorin; expenditure Rs. 1,536.

(4) Strong room for Tinnevelly taluk cutcherry; expenditure Rs. 290.

(5) Compound wall to the police station-house at Singikulam—expenditure Rs. 260.

. A sum of Rs. 1,612 was spent in repairing the Executive Engineer's office at Palamcottah, in reconstructing strong room of the huzur treasury at Kokarakulam, and in repair of two other buildings.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Godavari (East).**—The navigation works at Dumagudem were maintained at a cost of Rs. 8,041 during the year. The refixing of the tail lock lower gate of Dumagudem was in progress. The trade is rapidly decreasing and only 445 boats passed through the canal against 650 in the previous year. The canal was closed from 15th March 1887 to 13th June 1887. Since the scouring sluices were ruined in 1886, the head of the channel that leads from above the anicut to the head lock and scouring sluice has been seriously eroded and in time may endanger the anicut; an attempt was being made at the end of the year to lessen this danger by throwing a stone bund across the fallen scouring sluices and to protect the margin of the channel on the anicut side with stone.

. **Bellary.**—The following roads were retransferred to the charge of the Public Works Department:

(1) Road from Ramandrug to Sandur frontier on the Hospet side, 8 miles.
(2) Road from Ramandrug to the junction with the Sandur-Yettinhatti road, 13 miles.

A sum of Rs. 1,370 was spent on repairs to these roads against an estimate of Rs. 9,653.

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

(1) Overseer's rest-house at Cherambadi; total cost Rs. 6,387, outlay during the year Rs. 3,387.
(2) Constructing a wooden bridge at Burlyar on the Ootacamund-Mettupalayam road; total cost Rs. 6,226; outlay during the year Rs. 1,999.
(3) Constructing a new road on Mountstuart; total cost Rs. 10,025 against an estimate of Rs. 10,855, outlay during the year Rs. 1,398.
(4) Constructing eight cart-stands on the Ootacamund-Kullar road; total cost Rs. 4,721, outlay during the year Rs. 3,579.

. Two toll-houses on the Kullar-Gudalur road were completed and a third nearly so at a cost of Rs. 1,235. The mile-stones between Ootacamund and Mettupalayam were renewed; the outlay for the year having been Rs. 1,094 against an estimate of Rs. 1,520.

. **Presidency.**—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; and Rs. 3,381 and Rs. 1,062 for repairing the bridges over the Kuam and the Buckingham Canal.

. **South Arcot.**—The piers of arches of the bridge over the Shatiatope anicut were raised to the anicut crest level. The manufacture of bricks was put in hand.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

Buckingham Canal.—An estimate of Rs. 17,496 for training the banks of the Adyár river was sanctioned, and the expenditure amounted to Rs. 1,929 against an allotment of Rs. 2,000. Some groynes were constructed and a diversion channel was cut. Both answered their purpose very well.

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

. **Nilgiris.**—The fencing of the Ootacamund lake, with the exception of the portion round the "Cedars," was completed; outlay Rs. 2,996.

Rs. 31,927 were spent on improving the water-supply of Ootacamund lying north of the lake.

Rs. 1,444 were expended on completing the Adam memorial fountain.

A raised foot-path from Charing Cross to the market at Ootacamund was completed at a cost of Rs. 1,107.

Under repairs a sum of Rs. 582 was spent on repairing the bund of Marlimund roservoir. The Ootacamund lake was kept clear of weeds at a cost of Rs. 384.

. **West Coast.**—The revetment for the protection of the town of Ponani undertaken in the previous year was completed with an expenditure of Rs. 3,963 against an estimate of Rs. 4,280.

. The sea terminations of the groynes, five in number, near the light-house at Cochin were raised to a uniform level of 6 feet above the high tide level for the protection of the light-house and its neighbourhood; estimate Rs. 4,610, outlay Rs. 4,022.

. **Presidency.**—Rupees 834 were spent on the conservancy of the river Kuam and Rs. 601 in closing the Kuam bar.

. **South Arcot.**—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was nearly finished in 1886-87, was completed, and the drainage sluice in it was almost finished. The outlay was Rs. 6,812 on an estimate of Rs. 8,550.

. **Madura.**—An expenditure of Rs. 787 was incurred on surveying and estimating the proposed system of roads, &c., at Kodaikanal.

VI.—LOCAL—INCORPORATED.

. **Ganjam.**—The Aska and Surada road was maintained at a cost of Rs. 413.

. **Godavari (East).**—The earth-work of the Kovur-Manjair junction canal was finished at a cost of Rs. 55,057 against an estimate of Rs. 52,345. The outlay during the year was Rs. 2,300.

. Five cattle-crossings on the canal were finished at a cost of Rs. 558.

. The cut-stone coping for the aqueduct over the Tooliabhaga drain and iron railings and stanchions were finished. The cost of the aqueduct was Rs. 46,216 against an estimate of Rs. 40,000. The excess was principally due to alterations in the original design.

The Tooliabhaga new cut was completed; total outlay Rs. 8,923 against an estimate of Rs. 9,200.

The total expenditure up to end of the year on the Kovur-Manjair junction canal works amounted to Rs. 1,43,323 against an estimate of Rs. 1,45,525. The outlay during the year was Rs. 3,818.

Kistna (East).—Rs. 4,344 were spent against a grant of Rs. 3,391 on the landing stage at Bezváda. The excess was due to the collection of more material than was necessary. This will be transferred to other works in due course. The work was completed, except the return wall, which was in progress.

: The ferry road at Bezváda was repaired and the Local Fund quarries made safe at a cost of Rs. 210.

. **Kistna (West).**—The construction of a culvert under the good water channel at Nizampatam, estimate Rs. 900, was nearly completed. The expenditure during the year amounted to Rs. 508.

The river and canal banks used as roads were maintained in proper order at a cost of Rs. 881.

. **Nellore.**—The Pennér anicut roadway was gravelled and materials to the extent of Rs. 122 were collected for the next year's repairs. The total expenditure was Rs. 567 against a grant of Rs. 600.

. **South Arcot.**—The roads along the Coleroon bank, Veeranam tank-bank, and Perumaul tank-bank were kept in repair at an outlay of Rs. 1,599, 1,283 and 290.

. Sand was collected for the road along Khan Sahib's canal-bank at a cost of Rs. 349.

The earth-work was executed to give the full top width of 8 feet to the road passing over the Perumukal tank-bund at an outlay of Rs. 274.

. **Madura**.—At the commencement of the official year, the foundations of six of the 14 piers of the Vaigai bridge had been completed and the next four partially executed. Work progressed steadily during the ensuing months, and piers and both abutments were finished, with the exception of the 10th and 11th piers in the deep bed of the river. The cut-stone piers were commenced in June, and were nearly completed to springing level throughout. Arch-work was commenced in January; the first arch was completed by the 3rd March, and second keyed on the last day of the official year. Considerable difficulty was experienced in obtaining satisfactory bricks for arch-work. Rupees 1,20,759 were spent during the year against a grant of Rs. 1,20,000; Rs. 75,246 were expended up to the end of the preceding year, making the total outlay Rs. 1,96,005, the estimate being Rs. 3,21,460.

. Ten miles of the road from Cumbum to the foot of the Gudalur-Peermade ghât were repaired at an outlay of Rs. 1,623.

. The construction of a rough stone retaining wall to the lake at Kodaikanal was completed at a cost of Rs. 470, of which Rs. 406 were spent in the preceding year.

. **Tanjore**.—A new road around Elathoor, in lieu of the eroded portion of road No. 70, was completed at a cost of Rs. 1,690 against an estimate of Rs. 1,760, and 121 miles of roads on river-banks were maintained at a cost of Rs. 6,758.

. **Negapatam**.—Forty-five and a-half miles of roads on river-banks were maintained during the year at a cost of Rs. 3,939.

. **Trichinopoly**.—Twenty miles of road No. 20 from Sanganur to lower anicut were kept in order at an outlay of Rs. 987.

VII.—LOCAL—EXCLUDED.

Godavari (East).—A new fourth order dioptric light at the Hope Island light-house was set up at a cost of Rs. 1,097 against an estimate of Rs. 954.

Repairs to Vakalapudi and Hope Island light-houses were in progress at end of the year.

Kistna (East).—The salt creek from below the tidal lock at Masulipatam to the village of Gilakaladindi was cleared of silt at a cost of Rs. 1,736.

Buckingham Canal.—The construction of lines for lascars attached to the Armeghon light-house was completed at a cost of Rs. 1,889 against an estimate of Rs. 1,890. A new lightning conductor was fixed to the Armeghon light-house at a cost of Rs. 190.

The following repairs were carried out:

	Rs.
(1) Repairs to Superintendent's quarters and out-houses of Armeghon light-house	91
(2) Repairing damages to Armeghon light-house column	71
(3) Repairs to the Armeghon light-house	83
(4) Repairing thatched store-shed of the Armeghon light-house ...	30
(5) Repairs to Pulicat light-house	236
(6) Do. to Superintendent's quarters of Pulicat light-house ...	239

. **West Coast**.—The light-houses at Calicut and Cannanore were provided with lightning conductors at a cost of Rs. 599 and of Rs. 218, respectively, and they, as well as those at Tellicherry and Mangalore, were repaired and painted at an aggregate cost of Rs. 935.

. Materials for a wire-fencing round the light-house at Calicut were ordered, and the thatched roof of the watchman's shed improved with tiles at a cost of Rs. 319.

. Rs. 52 were spent in repairing the cranes at Vypeen and Cochin.

. **Presidency.**—An estimate of Rs. 1,020 was sanctioned for repairs to the light-house, Madras; but the grant was made too late in the year to admit of any work being done.

. **Chingleput.**—The light-house at the Seven Pagodas was in progress on an estimate of Rs. 8,165; the work consists of—

(1) Constructing a stone platform for a fourth order light;
(2) Construction of Superintendent's quarters;
(3) Do. of lascars' lines;
(4) Do. of two sentry boxes;

the expenditure to the end of the year was Rs. 6,253, and the work was nearly completed.

. **Tinnevelly.**—A new earth-plate to the lightning conductor attached to the light-house at Hare Island was completed at a cost of Rs. 70, and an outlay of Rs. 29 was also incurred in testing the lightning conductor.

VIII.—ESTATE WORKS.

. **Gundamanaikanur Zemindari.**—Estimates, amounting to Rs. 9,734, were sanctioned and funds allotted, and the works were put in hand in July, but several of them were stopped at the request of the Collector. The total expenditure during the year was Rs. 4,566.

. **Ramnad Zemindari**—*Civil Buildings.*—The original grants were Rs. 11,000 under ain (revenue proper), 23,000 under devastanam (temple endowment funds), and 6,000 under chuttram (charitable endowment funds); the revised grants were Rs. 14,154, 21,346 and 14,260, respectively; while the expenditure was Rs. 7,418, 9,941 and 9,722, respectively; showing a total short outlay of Rs. 22,679 with reference to the total revised grant.

. The construction of an office for the Superintendent of devastanam was in progress; the total expenditure was Rs. 3,847 against an estimate of Rs. 5,920. The work was not completed owing to some misunderstanding with contractors and to difficulty in carting materials to site.

. An outlay of Rs. 429 was incurred in constructing a granary at Rajasingamangalam; the estimate being Rs. 3,070. The work was started in January 1888, but could not be proceeded with vigorously owing to scarcity of labor.

. The following minor works were completed:

(1) Constructing a hall in front of the residence building of the fourth widow's quarters in the palace at Ramnad; estimate Rs. 1,370, expenditure Rs. 1,367.
(2) Constructing a granary at Yenathy; estimate Rs. 1,230, outlay Rs. 1,204.
(3) Improving estate building at Kamuthy; estimate Rs. 600, outlay Rs. 400.
(4) Constructing an enclosure wall with gate to the west block of Mallanjivar's chuttram at Tirushuli; estimate Rs. 223, expenditure Rs. 206.
(5) Reconstructing the Pilliarcovil at Kamuthy; estimate Rs. 297, outlay Rs. 272.

. The following works were in progress:

(1) Constructing a granary at Maranthai; estimate Rs. 1,815.
(2) Constructing divisional cutcherry at Sayalgudy; estimate Rs. 440.
(3) Constructing jamabandi cutcherry or granary at Kamuthy; estimate Rs. 1,725.
(4) Improving the taluk cutcherry, Salagramam; estimate Rs. 900.
(5) Constructing stable and cook-room near travellers' bungalow at Kamuthy; estimate Rs. 47.
(6) Reconstructing elephant shed at Tirupallani; estimate Rs. 265.

Out of 58 works in progress under different heads under Repairs, 28 were fully completed.

. *Agricultural Works.*—The original grants were Rs. 79,000 under ain, 17,000 under devastanam, and 4,000 under chuttram. The revised grants were Rs. 59,366, 9,712 and 1,427, while the expenditure amounted to Rs. 43,626, 4,874 and 1,142, respectively, showing a total short outlay of Rs. 20,863 with reference to the total revised grant.

The following works were in progress :

(1) Improvements to Ramnad large tank ; estimate Rs. 20,040, total expenditure Rs. 13,956.

(2) Improvements to Rajasingamangalam tank; estimate Rs. 18,650, total expenditure Rs. 12,668.

(3) Improvements to the Kalari tank ; estimate Rs. 17,610, total expenditure Rs. 5,321.

(4) Improvements to the Anaikulam tank ; estimate Rs. 14,085, total expenditure Rs. 6,367.

(5) Raising and extending the Gundar dam ; estimate Rs. 13,600, expenditure Rs. 775. The work was commenced late in the official year.

. Most of the requisitions of the estate authorities under the head Minor Works were complied with. Out of 131 works in progress, 44 were completed.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

Ganjam.—The expenditure on repairs amounted to Rs. ~~3,275~~ against an allotment of Rs. ~~3,200~~.

Godavari (East).—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 512.

. **Bellary.**—The apothecaries' quarters (double) at Bellary were finally completed and handed over for occupation The outlay amounted to Rs. ~~7,984~~ against a revised estimate of Rs. 7,856.

. The collar-makers and wheelers' shop at Bellary was finally completed during the year; estimate Rs. 5,663, outlay Rs. 5,663.

. The foundations of a new gun-shed for the Royal Artillery were partly excavated and materials collected; estimate Rs. 11,560, outlay Rs 3,975.

. The foundations of the workshops for the arsenal at Bellary were excavated and concrete to a depth of $1\frac{3}{4}$ feet laid throughout. Materials were collected, and work was in good progress. The expenditure amounted to Rs. 6,888 against an allotment of Rs. 6,858. The estimate was under revision on account of certain alterations desired by the Military authorities.

. The under-mentioned minor new works were completed:

	Outlay. Rs.
(1) Fitting up new gate and raising compound wall of lock hospital ...	600
(2) Store-room for the forge S/1st Royal Artillery	147
(3) Cistern to receive drainage of European Infantry barracks ...	164
(4) Urinary for canteen G/2nd Royal Artillery	110
(5) Teakwood gratings for wash-house of the European Infantry barracks	110

. The total outlay under Repairs, Military, was Rs ~~31,600~~. This sum was expended in the maintenance and repairs of the military buildings and roads, including the Barrackmaster'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 almost completed at a cost of Rs. ~~35,088~~ against an estimate of Rs. 35,850. The final completion was delayed owing to defects and omissions in the machinery sent out from England.

(2) Quarters for a barrack sergeant at Wellington were completed at an outlay of Rs. ~~7,100~~; estimate Rs. 7,348. A supplemental estimate of Rs. 346 was sanctioned and executed.

(3) A new magazine at Wellington was constructed; estimate Rs. 5,225, expenditure Rs. 4,867.

(4) Minor works; expenditure Rs. ~~3,902~~, allotment Rs. 3,758:
The principal works were—

Laying pipes from drinking-water cistern to station hospital; outlay Rs. 686.

Providing stands for 250 ammunition-boxes; outlay Rs. 435.

Making a flag-staff for General Officer Commanding, Southern District; outlay Rs. 268.

Alterations to Wellington barracks; outlay Rs. 909.

Constructing a masonry drain from barracks square to Engineer's office, Wellington, Rs. 475.

(5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. ~~4,567~~ and Rs. ~~23,919~~, respectively.

. **Coimbatore.**—The farrier sergeant's house at the Remount Depôt, Matigiri, was purchased for Rs. ~~1,510~~.

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The following minor original works were completed during the year:

(1) Adding a linen room and verandah to the hospital at the Remount Depôt; estimate Rs. 216, outlay Rs. 162.
(2) Improvements to the hay-shed attached to the farm-stables at the Remount Depôt; estimate Rs. 1,260, outlay Rs. 997.
(3) Improvements to Mr. Maddock's quarters and out-houses at Matigiri; estimate Rs. 550, outlay Rs. 513.
(4) Constructing six water-troughs in the Remount Depôt; estimate Rs. 432, outlay Rs. 417.
(5) Rebuilding partition walls between the stall of horse-stables at the Remount Depôt; estimate Rs. 890, outlay Rs. 866.
(6) Constructing two tent lascars' huts at the Mettupálaiyam rest-house; estimate Rs. 335, outlay Rs. 332.

Repairs to military buildings at the Remount Depôt and to the rest-houses at Podanur and Mettupálaiyam were carried out at an outlay of Rs. 5,331.

West Coast.—During the year supplemental estimates, amounting to Rs. 46,340, in connection with the project for accommodating troops at Malapuram, were sanctioned for (1) a new third block of barracks with wash-house and latrine, (2) improvements to the canteen, and (3) constructing drains.

The walls of the barracks were raised 10 feet and arch-work commenced; the walls of the wash-house were raised 7 feet, and the latrine was being roofed. The main walls of the canteen were raised to full height, and roofing of verandah was in progress. Fifty feet of open drains and three covered drains were finished. The total grant of Rs. 17,000 for the year was utilised.

The following incomplete works of the previous years were completed:

(1) Improvements to the elephant shed at Malapuram; estimate Rs. 2,060, outlay Rs. 1,916.
(2) A store-room for the Madras Infantry regiment at Quilon; estimate Rs. 9,334, outlay Rs. 7,299.

Eighteen minor works were carried out during the year at a cost of Rs. 8,411, the principal ones being—

(1) constructing markers' and stop-butts of the European Infantry at West Hill, Calicut; estimate Rs. 320, outlay Rs. 273;
(2) deepening a well in the camping ground, Malapuram; estimate Rs. 410, outlay Rs. 308;
(3) improving the well below married quarters, West Hill, Calicut; estimate Rs. 376, outlay Rs. 362;
(4) improving the park sergeant's quarters, Cannanore; estimate Rs. 806, outlay Rs. 731.
(5) alterations and additions to the recreation-room and canteen block of British Infantry at Cannanore; estimate Rs. 1,183, outlay Rs. 1,185;
(6) reconstructing a well in the Madras Infantry lines, Mangalore; estimate Rs. 467, outlay Rs. 225.

The expenditure under Repairs, Military, amounted to Rs. 23,939 against an allotment of Rs. 28,369. The apparent short outlay was mainly due to the expenditure incurred on the cantonment roads at Quilon by the Chief Engineer, Travancore, viz., Rs. 3,937, not having been brought into account. There were also trifling savings on completed works.

Presidency.—Work on the conversion of the racket court in Fort St. George into a covered gymnasium was continued and nearly completed at a cost of Rs. 9,754.

The conversion of A. block family quarters, Fort St. George, into single men's barracks, &c., was also continued, and the work completed at a cost of Rs. 15,325 on an estimate of Rs. 15,877. The outlay during the year was Rs. 9,369.

The conversion of the sergeants' mess and adjacent godowns into a latrine and lavatory for the above barrack was in progress on an estimate of Rs. 3,820.

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. Improvements to the water-supply of Fort St. George, which had been nearly completed in 1886-87, were carried out to completion.

. The conversion of staff sergeants' quarters into a school-house for the Native Infantry, Perambúr, was in progress, and Rs. 1,265 were spent in the year.

. Alterations and improvements to the drains at the Body Guard lines, Madras, were carried out at a cost of Rs. 1,286.

. A verandah was constructed to the officers' mess, Fort St. George, at a cost of Rs. 362, and servants' quarters were built to each of the Commissariat sub-conductors' quarters at the Ordnance lines, Madras, at an outlay of Rs. 1,048.

. The additions to the wash-houses at the parade barracks, Bangalore, were continued, and the work was completed at an outlay of Rs. 11,737 on an estimate of Rs. 12,500. The year's expenditure was Rs. 1,017.

. The construction of public buildings for a regiment of Native Infantry at the Arab lines was completed. The outlay was Rs. 21,903 on an estimate of Rs. 21,636. The year's expenditure was Rs. 6,715.

. The construction of station butchers' quarters was in progress on an estimate of Rs. 3,860. The work was almost completed at an outlay of Rs. 2,120.

. Twenty-five minor new works at the Presidency and twenty-three at Bangalore were completed at a cost of Rs. 12,173.

. One hundred and thirty-six repair works at the Presidency and 185 at Bangalore were carried out during the year. Payments were made to the Madras municipality of Rs. 15,287 on account of house, water and lighting taxes on Government military buildings outside Fort St. George, and of Rs. 6,000 on account of maintenance repairs of the esplanade and fort beach roads.

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

. The total outlay under Repairs, including barrackmaster's expenditure on petty repairs, compensation for quarters and payments made to the municipalities on account of taxes and maintenance grants was Rs. 94,521 at the Presidency and Rs. 66,483 at Bangalore.

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

(1) repairing the walls and floors of the military prison, Fort St. George; estimate Rs. 2,875, expenditure Rs. 2,665;

(2) general repairs to the Perambúr Native Infantry lines; estimate Rs. 5,570, expenditure Rs. 5,656;

(3) thorough repairs to the officers' mess-house, Fort St. George; estimate Rs. 4,945, expenditure Rs. 2,157;

(4) repairing ceilings of the armoury, Grand Arsenal, Fort St. George; estimate Rs. 3,100, expenditure Rs. 1,649;

(5) making thorough repairs to the Government granary of the Commissariat Department; estimate Rs. 8,800, expenditure Rs. 1,105;

(6) plastering with cement the exterior face of the enciente of Fort St. George from north to St. George's gate; estimate Rs. 2,970, expenditure Rs. 2,679;

(7) painting doors and windows of the parade barracks, Bangalore; estimate Rs. 7,280, expenditure Rs. 5,871;

(8) whitewashing the buildings in parade barracks; estimate Rs. 2,990, expenditure Rs. 2,830;

(9) whitewashing and wood-oiling all buildings at the Agaram cavalry barracks; estimate Rs. 5,090, expenditure Rs. 4,541.

(10) substituting Basel Mission tile-roof for ordinary tiled-roof to one single and one double row of stalls at the Agaram cavalry barracks; estimate Rs. 3,675, expenditure Rs. 4,371.

(11) whitewashing and wood-oiling the Agaram Royal Artillery barracks; estimate Rs. 3,710, expenditure Rs. 3,087.

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. **Chingleput.**—A coffee shop, with kitchen, for the upper story barracks at St. Thomas' Mount, commenced in 1886-87, was completed at an outlay of Rs. ~~4,704~~ 6870 on an estimate of Rs. 6,690.

. Eleven cook-houses attached to the family quarters of the P/1st and Q/1st Royal Artillery, Mount, were taken down and rebuilt on an estimate of Rs. 2,970, and the work was completed at an outlay of Rs. 2,986.

. Alterations and improvements to the barrel racks at the reserve powder magazine, Mount, were commenced, and an expenditure of Rs. 882 was incurred. The work had to be deferred pending removal of the powder by the Military Department.

. Seven minor new works were completed at a cost of Rs. 1,601.

. Repairs to 15 buildings and several minor repairs, costing less than Rs. 500 each, were carried out at a total expenditure of Rs. 17,206, and the roads in the cantonments of Mount, Pallávaram, and Poonamallee, were maintained at an outlay of Rs. 3,814. The total expenditure under Repairs, including Barrackmaster's petty repairs, compensation for quarters, &c., was Rs. 28,316.

. The more important of the repairs were—

(1) repairing the roof of 11 barracks at Pallávaram; estimate Rs. 1,025, expenditure Rs. 979;
(2) repairing station hospital and its out-houses, Poonamallee; estimate Rs. 910, expenditure Rs. 818;
(3) repairing the sun-shades in the family quarters, Nos. 20 and 27, of Q/1st Royal Artillery, Mount; estimate Rs. 915, expenditure Rs. 873;
(4) repairing the sick lines stables at Mount; estimate Rs. 1,340, expenditure Rs. 1,257;
(5) repairing white and colour-washing west barracks and out-houses of 2nd Brigade, Royal Artillery, Mount; estimate Rs. 3,880, expenditure Rs. 2,279;
(6) repairing white and colour-washing, No. 66, female hospital, Mount; estimate Rs. 1,135, expenditure Rs. 754.

. **North Arcot.**—A sum of Rs. 2,438 was spent under Repairs, including the usual annual contribution of Rs. 1,000 to the municipality on account of maintenance of Vellore cantonment roads.

. **Trichinopoly.**—Construction of public buildings for a regiment of Native Infantry. The magazine and cells, which were incomplete at the close of the preceding year, were completed at an outlay of Rs. 2,495 against a grant of Rs. 2,340. The whole work was completed at a cost of Rs. 20,310 against an estimate of Rs. 20,155.

. Rupees 149 were spent in providing ammunition-boxes and Rs. ~~3,835~~ 3827 in maintaining cantonment roads and repairing military buildings.

II.—IMPERIAL—CIVIL WORKS.

Vizagapatam.—The post-office at Salúr was completed and handed over to the Postal Department. The total cost was Rs. 2,057 against an estimate of Rs. 2,000. The expenditure in the year was Rs. 1,746.

Repairs were executed to the post-offices at Vizagapatam and Narsapatam and to the telegraph office at Vizagapatam.

Godavari (East).—The telegraph office at Cocanada was repaired at a cost of Rs. ~~932~~ 979 and the telegraph office at Rajahmundry at a cost of Rs. 219. A sum of Rs. 165 was spent on the post-office at Tuni.

Kistna (East).—A well in the compound of the post-office at Bezváda was completed during the year at a cost of Rs. 105.

The telegraph offices at Bezváda and Masulipatam were maintained in good order.

Kistna (West).—Iron-bars were fixed to the windows of the Duggirala post-office at a cost of Rs. 12.

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Nellore.—The Sub-Postmaster's quarters, &c., at Gúdúr were completed, and the post-office at the same place was improved.

The post-offices at Kistnapatam and Gudur were repaired during the year.

Buckingham Canal.—The Covelong bar was opened on emergency in May 1887 on the requisition of the Salt Department without an allotment of funds, but the expenditure incurred was defrayed by a contribution from that department. The estimate amounted to Rs. 6,599, while the expenditure was Rs. 5,193.

Bellary.—The post-office at Anantapur was completed and handed over to the Postal Department. The expenditure amounted to Rs. 4,414 against an estimate of Rs. 4,051.

A compound wall was built to the post-office at Adóni at a cost of Rs. 113.

Coimbatore.—The late Munsif's court-house at Dharmapuri was converted into a post-office and Postmaster's quarters at an outlay of Rs. 636; estimate Rs. 652.

Repairs to three post-offices were carried out during the year at a cost of Rs. 102.

Nilgiris.—Improvements to the post-office at Kótagiri were carried out at a cost of Rs. 790.

Rupees 590 were spent on repairs, postal, and Rs. 117 on repairs, telegraph, buildings.

West Coast.—Certain vacant buildings in the fort at Tellicherry (late district jail) were converted into a post-office and Postmaster's quarters at an outlay of Rs. 2,613 against an estimate of Rs. 2,335.

The windows and doors of the post-office at Vayitri were iron-barred at a cost of Rs. 172.

Rupees 497 were spent in repairs to six postal buildings.

Presidency.—A few small works were undertaken, viz.:

(1) Adding a room to the Imperial post-office at Hunsur; outlay Rs. 172.
(2) Improvements to the Mysore post-office; outlay Rs. 850.

The following repairs were carried out:

(1) Whitewashing and repairing the telegraph office, Bangalore; expenditure Rs. 492.
(2) General repairs to the telegraph stores, Black Town, Madras; expenditure Rs. 639.
(3) Whitewashing the general post-office; Bangalore, expenditure Rs. 244.

North Arcot.—The post-office at Chittoor was enlarged at a cost of Rs. 353.

A sum of Rs. 291 was spent on repairs to the Postmaster's quarters in the Vellore fort and on repairs, &c., to the Stipend pay office to adapt it for the use of the combined post and telegraph office.

South Arcot.—Quarters for the Deputy Postmaster at Tindivanam were completed at an outlay of Rs. 579.

Rupees 167 were spent on repairs to the office of the Superintendent of Post-office, Cuddalore Division.

Trichinopoly.—Improvements to the combined post-office at Trichinopoly fort and to the post-office at Musiri were carried out at an outlay of Rs. 343.

Tanjore.—The addition of a bath-room and verandah to the post-office at Tanjore was completed at a cost of Rs. 260, and the extension of the post-office at Kumbakónam for the accommodation of the telegraph office was completed at a cost of Rs. 1,028, of which Rs. 874 were spent during the preceding year. The post-office at Tanjore was also repaired at an outlay of Rs. 110.

Negapatam.—Repairs to the post-offices at Patukota and Mimmesel were completed at a cost of Rs. 558.

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Madura.—Rupees 634 were spent in completing the new post-office at Butlagundu, on which Rs. 939 were laid out in the preceding year against an estimate of Rs. 1,340. A police station-house at Vedasandúr was converted into a post-office at an outlay of Rs. 75. The British post-office at Peermede and Postmaster's quarters at Periyakulam were repaired at a cost of Rs. 83.

Tinnevelly.—The telegraph office at Tuticorin was repaired at a cost of Rs. 468, and the post-offices at Tenkarai, Satúr, Nagarcovil, Vasudevanallúr, and Srívaikuntham were repaired at an outlay of Rs. 826.

III.—PROVINCIAL—CIVIL BUILDINGS.

Ganjam.—A building at Russelkonda was purchased for Rs. 1,000 as an office for the Deputy Collector.

Repairs to the following works were executed during the year:

(1) Collector's house at Chatrapur.
(2) Police magazine at Chatrapur.
(3) Subdivisional office at Russelkonda.
(4) Out-houses of Collector's bungalow at Chatrapur.
(5) Improvements to the treasury room at Chatrapur.

The total cost of repairs was Rs. 2,620.

Vizagapatam.—The bungalow and out-houses for the Assistant Superintendent of Police, Jeypore, was completed at a cost of Rs. ~~15,416~~ against a revised estimate of Rs. 15,350. The outlay during the year was Rs. ~~348~~. The building was finally handed over to the Police Department on 31st March 1888.

The following works were in progress:

(1) Additional accommodation to the Huzur treasury at Vizagapatam; estimate Rs. 9,360, including a supplementary estimate of Rs. 490, outlay Rs. 9,196; a second supplementary estimate of Rs. ~~535~~ was subsequently sanctioned.
(2) The police station at Koraput, an incomplete work of the previous year, was completed with the exception of the asphalte flooring to the two cells and some other trifling work. The total expenditure was Rs. ~~1,426~~ against an estimate of Rs. 3,895; the outlay for the year being Rs. ~~2,347~~ against an allotment of Rs. 2,100.
(3) Additions and alterations to the Deputy Tahsildar's office at Pálkondah and constructing a second-class police station-house in the compound. The work was completed, but accounts were not fully closed. The estimated cost of the work was Rs. 4,920, previous outlay Rs. 1,876. Outlay during the year under review Rs. 2,769.
(4) Constructing an hospital at Gunupuram; revised estimate Rs. 4,020, expenditure Rs. 2,040. This was expended on the wood-work. Work was not commenced, as the site was not settled until the end of the year.
(5) Constructing 34 reserve police huts at Koraput; estimate Rs. 14,800, expenditure Rs. ~~1,120~~.
(6) Completing the Sub-Magistrate's cutcherry with sub-jail at Potinghi. An iron roof was purchased for Rs. 3,316 against an allotment of Rs. 3,400.
(7) Second-class police station-house at Komarada; estimate Rs. 1,520. The work was completed at a cost of Rs. 1,506. Rs. 1,080 was expended during the year.
(8) Additions to the Deputy Tahsildar's office at Bimlipatam were completed at a cost of Rs. 1,125 against an estimate of Rs. 1,040.
(9) An iron safe for the treasury at Potinghi was made at a cost of Rs. 274.
(10) Alterations were carried out to the kitchens and latrines of the lunatic asylum at Waltair at a cost of Rs. 176 against an estimate of Rs. 192.

The lunatic asylum at Waltair was repaired at a cost of Rs. 1,525 and six minor works at a cost of Rs. 714.

Godavari (East).—Additions to Collector's cutcherry, Cocanada. This work was practically finished during the preceding year. The old buildings near the

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Collector's cutcherry were dismantled and the sale-proceeds, which amounted to Rs. 1,272, were credited to the work. The total cost of the new buildings was Rs. 36,861 against an estimate of Rs. 31,870.

New court-house, Rajahmundry. Some furniture was purchased at a cost of Rs. 1,077. The total outlay on the main building and subsidiary works amounted to Rs. 41,933 against an estimate of Rs. 42,200.

The Sub-Magistrate's cutcherry, Pittapuram, was completed during the year, and formally handed over in December 1887. The total cost of the building was Rs. 10,656 against an estimate of Rs. 8,983.

The Sub-Magistrate's cutcherry at Tuni was completed and handed over to the Sub-Magistrate in December 1887. The cost of the building was Rs. 9,692 against an estimate of Rs. 9,436. Rupees 2,436 were expended during the year.

The outlay on the church at Cocanada to end of the year, against the Government grant-in-aid of Rs. 6,000, was Rs. 5,199.

Water-supply and improvements to the existing drainage of the central jail, Rajahmundry. The improvements were finished, with the exception of roof over the well which was in progress in the Dowlaishweram workshops. The expenditure to end of the year was Rs. 31,391 against an estimate of Rs. 33,030.

A bath-room for the Principal of the Provincial College, Rajahmundry, was completed at a cost of Rs. 427.

The main building of the dispensary at Bhádrachallam was completed, and the out-houses were almost finished. A well was dug to a depth of 33 feet. The outlay during the year was Rs. 2,470 against an estimate of Rs. 4,246.

Quarters for the hospital assistant, Public Works Department, at Dowlaishwearam, were completed at a cost of Rs. 610.

A Registrar's office, Cocanada, was completed during the year and handed over to the District Registrar. The cost of the building was Rs. 4,802 against Rs. 4,700.

The main building of the Executive Engineer's quarters, Dowlaishweram, was completed. The total expenditure amounted to Rs. ~~14,927~~ against an estimate of Rs. 12,500. 14,929

564. A well for the Superintending and Executive Engineer's houses was completed at a cost of Rs. ~~562~~ against the estimate of Rs. 500.

2530 Major Brockman's house and land at Dowlaishweram were purchased for Rs. ~~2,500.~~

A portion of the roof of Trinity church at Rajahmundry was repaired, and minor repairs were carried out to other buildings.

Godavari (Central).—The Sub-Registrar's office at Razole was completed 2768 at a cost of Rs. ~~2,750~~ against an estimate of Rs. 2,750, and handed over. Rs. ~~554~~ 563 were expended during the year.

The subdivision office at Gunnaram was repaired.

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

	Estimate. Rs.	Outlay. Rs.
(1) Sub-Registrar's office at Pentapad	2,710	2,694
(2) Cook-house to Executive Engineer's bungalow at Chettipet completed	500	536
(3) Constructing 1st-class taluk cutcherry at Tanuku, nearly completed. Revised estimate submitted	21,420	~~23,239~~ 24648
(4) Constructing 1st-class taluk cutcherry at Bhímavaram, nearly completed	22,650	~~24,807~~ 24,434
(5) Constructing 1st-class taluk cutcherry at Narasapur; materials were collected and foundations dug, but the work was stopped pending sanction to a revised estimate	22,900	~~13,496~~ 14076
(6) Sub-Registrar's office at Tanuku, nearly completed ...	3,090	~~2,978~~ 3044
(7) Do. do. at Ellore; materials were collected and the wood-work was under preparation	2,540	~~1,858~~ 1930

ENCLOSURE
2 AUG 88

Kistna (East).—Repairs to the Collector's residence at Masulipatam were in progress; estimate Rs. 14,305, expenditure Rs. ~~6,813~~. Out of an allotment of Rs. 7,000, only Rs. ~~4,404~~ were expended for wood-work, which, however, did not reach Masulipatam in time to be put up during the year. Work was also retarded owing to non-receipt of Portland cement which the Madras company could not supply till May 1888.

Two head constables, and ten constables' huts at Bezváda were commenced, and all masonry work was completed; tiles and bamboos were procured, and the roofs of two huts put on; estimate Rs. 4,538. The expenditure during the year was Rs. 2,003 against a grant of Rs. 2,000.

A treasury office in front of treasury room in the compound of the Gudivádá taluk cutcherry was completed; Rs. 1,149 were spent against an estimate of Rs. 1,300.

The following buildings were repaired during the year:

(1) Kistna Eastern Division office.
(2) Superintending Engineer's residence and office.
(3) Northern subdivision office.
(4) Bungalow on Colonel Orr's Hill at Bezváda.
(5) Dutch graves, tomb-stone of Dutch chief and French cemetery.

Kistna (West).—Rs. 1,000 were spent in collecting materials for the Sub-Registrar's office at Bápatla.

Materials to the extent of Rs. 406 were collected during the year for the Karampudi District Munsif's court-house. The allotment was given late in the year.

Nellore.—The following works were completed during the year:

(1) Improvements to the Sub-Collector's bungalow, Ongole.
(2) Horse-stable with coach-house at the Division office.

The district jail at Nellore was in progress; the grant of Rs. 2,948 was exceeded by Rs. ~~1,772~~ owing to trusses having been ordered in the workshops in anticipation of sanction to additional funds, which were, however, not made available.

Repairs to the following buildings were attended to—

(1) Police station-house at Naidupett;
(2) Assistant Superintendent's bungalow at Ongole;
(3) Hill bungalow at Ongole;
(4) Sub-Collector's bungalow at Ongole;
(5) Taluk cutcherry and subsidiary jail at Kandukúr;
(6) Collector's bungalow at Nellore;
(7) Bungalow at Kodavalur;
(8) Christ church, Nellore;
(9) Assistant Superintendent's office at Ongole..

Bellary.—The Collector's office at Anantapur was completed and handed over to the Revenue Department in January 1888. The accounts were not closed as some chicks required by the Collector had to be supplied. The expenditure on the work amounted to Rs. 63,427 against an estimate of Rs. 64,290.

Improvements to the Collector's office at Bellary were in progress. The walls of the upper story in both wings were raised to full height and door-frames fixed. The work was much delayed on account of contractor's timber being detained at Guntakal junction railway station.

The superstructure of the Collector's residence at Anantapur was raised to about 6 feet above basement, and door and window-frames were fixed. The expenditure amounted to Rs. 23,758 against an estimate of Rs. 28,190.

The police huts at Vanavole were brought up to basement level and materials collected. The expenditure amounted to Rs. 600 against an estimate of Rs. 2,928. The work was for some time at a standstill owing to sickness amongst work-people who deserted the work.

2 AUG 88
EXAMINED, P. W. ACCOUNTS

. The under mentioned minor new works were carried out:

(1) Additional out houses for the Head Assistant Collector's bungalow; estimate Rs. 640, outlay Rs. 114.

(2) Re-roofing a portion of the store-shed at the engineer's yard; estimate Rs. 1,500, outlay Rs. 1,710.

(3) Horbury's patent privy for the combined Executive Engineer's and Superintending Engineer's office in the fort; estimate Rs. 185, outlay Rs. 179.

. The Munsif's court at Penukondah, the Roman-Catholic chapel, the Roman-Catholic cemetery, the garrison church, the military cemetery, the fort church, the taluk cutcherry at Penukondah and several other civil buildings were repaired during the year at a total cost of Rs. 6,960.

Eradication of vegetation and minor repairs to the temples at Hampi, Neelagunda and Heraihadgally were attended to; outlay Rs. 120.

. **Cuddapah.**—Of the sanctioned additions and alterations to the district jail at Cuddapah, three male wards were completed. The fourth was also completed except flooring and pointing walls built; and gratings and iron-doors put up to the fifth. The expenditure amounted to Rs. 23,903 against a revised estimate of Rs. 31,900.

. The Collector's office at Cuddapah was in progress. Interior arches were built and verandah arches commenced. All walls were built 14 feet high and girders were being raised. The expenditure amounted to Rs. ~~81,731~~ against an estimate of Rs. 1,43,741. 61960

. The walls of the Registrar's office at Cuddapah were built and beams and joists put up for the roof. Roofing was commenced and doors and windows were ready. Estimate Rs. 5,192, outlay Rs. 3,899.

. Roofing to the taluk office at Váyalpád was completed, except the sub-jail. Wooden tower, fixing of doors and windows, painting and wood-oiling remained to complete. The expenditure amounted to Rs. 19,915 against an estimate of Rs. 25,700.

. Materials were being collected for the taluk office at Rajampett. The original allotment of Rs. 10,000 for this work had to be reduced to Rs. 2,700, owing to the prevalence of cholera, which prevented the commencement of the work.

The taluk office at Pulivendla was completed. The expenditure amounted to Rs. 23,610 against an estimate of Rs. 23,443.

The under-mentioned minor new works were carried out during the year:

	Estimate. Rs.	Outlay. Rs.
(1) Sub-Registrar's office, Váyalpád	2,435	48
(2) Do. do. at Chitvél	2,040	259
(3) Improvements to Nandalúr Munsif's court	992	726

. **Kurnool.**—Work on the taluk office at Nandyál was in progress. The expenditure amounted to Rs. 24,637 against an estimate of Rs. 34,676.

. Nine constables' huts at Pattikonda were in progress. The outlay during the year amounted to Rs. 1,298 against an estimate of Rs. 2,903.

. **Nilgiris.**—Rupees 14,077 were spent on additions and improvements to Government House at Ootacamund; the principal items of expenditure being—

	Rs.
Furniture	4,671
General horticultural improvements	970
Providing lightning conductors	1,130
Additions to coach-house	4,217
Erecting screen walls to servants' quarters	1,081
Piping water-supply	1,785

. Good progress was made during the year on the repairs to the Mountstuart property, and an outlay of Rs. 9,139 was incurred. The total outlay was Rs. 16,646 against an estimate of Rs. 19,945.

ENCLOSURE
2 AUG 88

. The combined Bench Magistrate's court at Kótagiri was completed during the year at a cost of Rs. 8,620 against an estimate of Rs. 8,060. Expenditure during the year Rs. 3,179.

. The new building for the Breeks' Memorial School, for which a revised estimate had to be submitted, was also completed and opened in March. Outlay for the year Rs. 25,276.

. A new police-station was built at Naduvattam. The expenditure during the year was Rs. 3,076 and the total outlay Rs. 4,031 against an estimate of Rs. 4,110.

. The Roman-Catholic church at Wellington was completed for the amount of the Government grant. The expenditure during the year was Rs. 16,863 and the total outlay was Rs. 23,863 against an estimate of Rs. 33,576.

. Other important works were--

(1) improving police-station and huts at Masingudi; estimate Rs. 3,020, outlay Rs. 2,833;
(2) repairing Curator's house in Government gardens, Ootacamund; estimate Rs. 2,805, outlay Rs. 2,823;
(3) alterations and improvements to the district jail at Ootacamund for the accommodation of public offices and for the apothecary attached to Army head-quarters; estimate Rs. 2,950, outlay Rs. 2,205;
(4) rupees 3,000 were spent in collecting materials for the conversion of the old Breeks' Memorial School into a Sub-Judge's court;
(5) the outlay on minor works during the year was Rs. 15,140.

The following are the principal works:

		Rs.
(1)	Providing lightning conductors to—	
	St. Stephen's church, Ootacamund	720
	Mountstuart buildings, Ootacamund	680
	Government Office, Stonehouses	801
	Council Chamber, Ootacamund	365
	St. Thomas' church, Ootacamund	537
(2)	Enclosing Wellington cemetery with a wire fence ...	660
(3)	Extending and improving police huts at Pykara ...	1,593
(4)	Do. do. at Kalhatti ...	1,300
(5)	Improving the roof of St. Stephen's church, Ootacamund...	1,318
(6)	Supplying partitions and record-racks to offices on Mountstuart	1,117
(7)	Widening and raising the clock-turret on Stonehouse Hill	1,011
(8)	Renewing roof of Clerks' offices on Stonehouse Hill ...	1,456

. A sum of Rs. 23,841 was spent on repairs, the chief items being—

(1)	repairs to police lines at Ootacamund	3,161
(2)	repairs to Government House	10,991

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

(1) Constructing a District Forest office at Coimbatore; estimate Rs. 10,110, outlay Rs. 9,450.
(2) Constructing close prison at Coimbatore; estimate Rs. 19,582, expenditure Rs. 12,054; outlay during the year Rs. 337. The apparent saving was due to convict labor supplied by the Jail Department free of cost, estimated at Rs. 6,461 and to purchase of locks in England by the Inspector-General of Jails, Rs. 912.
(3) additions and alterations to the quarters of the Superintendent of the Central Jail at Salem; estimate Rs. 3,600; expenditure Rs. 3,727, outlay during the year Rs. 1,123.
(4) constructing quarters for the Deputy Jailor attached to the central jail at Salem; estimate Rs. 3,660, expenditure Rs. 3,691, outlay during the year Rs. 839.
(5) improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure Rs. 5,148, outlay during the year Rs. 674, exclusive of convict labor estimated at Rs. 740.

ENCLOSURE
2 AUG 38

(6) rebuilding a portion of the District Munsif's court-house at Namkal; estimate Rs. 3,595, expenditure Rs. 3,734, outlay during the year Rs. 1,220.

(7) purchase of and improvements to a building at Tirupatúr for a residence for the Assistant Superintendent of Police; estimate Rs. 4,768, expenditure Rs. 4,768.

(8) constructing a Sub-Registrar's office at Hosur; estimate Rs. 2,970, expenditure Rs. 2,871, outlay during the year Rs. 275.

. A Sub-Registrar's office at Kollegál was in progress; estimate Rs. 2,630, outlay Rs. 900.

. Fifteen minor new works, on which a sum of Rs. 5,538 was spent, were in progress, of which ten were completed, viz.:

						Rs.
(1)	Supplying and fitting iron-safes to	Coimbatore	taluk	treasury	...	410
(2)	Do.	do.	Palládam	do.	do.	... 870
(3)	Do.	do.	Kollegál	do.	do.	... 438
(4)	Do.	do.	Bhávani	do.	do.	... 435
(5)	Do.	do.	Karúr	do.	do.	... 869
(6)	Do.	do.	Sathyamangalam	taluk	treasury.	881
(7)	Do.	do.	Uttankarai	do.	do.	243
(8)	Do.	do.	Yercaud	do.	do.	226
(9)	Improvements to the new treasury room at Salem					90

(10) Constructing a Sub-Registrar's office and compound wall at Tiruchengód; estimate Rs. 2,265, expenditure Rs. 2,288, outlay during the year Rs. 626.

A sum of Rs. 5,966 was spent on repairs, the chief items being—

(1) repairing the women's ward of the central jail, Coimbatore, outlay Rs. 719.

(2) repairing the hospital and out-houses attached to the central jail, Coimbatore, outlay Rs. 2,543.

(3) repairing the out-houses attached to the Collector's bungalow at Salem, outlay Rs. 1,027.

(4) repairs to the taluk cutcherry at Tripatúr, Rs. 267.

(5) repairs to the Sub-Collector's bungalow at Erode, outlay Rs. 300.

. **West Coast.**—During the year supplemental estimates, amounting to Rs. 13,494, were sanctioned for completing the Law Courts at Calicut, bringing the total of the revised estimate to Rs. 1,20,200. The only items of work taken up were strengthening the vakils' chambers, constructing surplus drains and collecting materials for sun-shades. The aggregate expenditure up to date was Rs. 1,07,107.

. The new public offices at Pónani were completed, except the latrine, of which the superstructure to the level of 2 feet above the crown of arches was finished. Outlay during the year Rs. 14,599.

. The main buildings were made over to the respective departments.

. The residence for the Assistant Superintendent of Police at Malapuram begun in the previous year was completed, with the exception of punkhas and mats and deepening the well. The year's outlay was Rs. 5,378, bringing the total expenditure to Rs. 12,600 against an estimate of Rs. 13,660.

. The following works were completed:

(1) Improving the Government church, Cochin; estimate Rupees 20,680, outlay Rs. 20,177.

(2) Sub-Registrar's office at Chevayur; estimate Rupees 3,020, outlay Rs. 2,923.

(3) Sub-Registrar's office, Puthur; estimate Rs. 3,120, outlay Rs. 3,097.

3370 (4) Sub-Registrar's office, Udipi; estimate Rs. ~~3,514~~, outlay Rs. 3,514.

(5) Sub-Registrar's office, Mannarghat; estimate Rupees 2,450, outlay Rs. 2,338.

(6) Additions to the old jail buildings in the fort at Tellicherry to fit them for use as Sub-Collector's cutcherry; estimate Rs. 2,710, outlay Rs. 2,518.

(7) Improvements to the Munsif's court at Perpanangadi; estimate Rs. 1,534, outlay Rs. ~~1,467.~~ 1417

ENCLOSURE
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EXAMINER

(8) Supplemental work to the conversion of sweepers' quarters into patients' wards at the Lunatic Asylum, Calicut; outlay Rs. 4,135.

(9) Providing lightning conductors to the turret of the District Munsif's court, Tellicherry; estimate Rs. 360, outlay Rs. 341.

(10) Improving the clerks' room, District Munsif's court, Tellicherry; estimate Rs. 495, outlay Rs. 544.

(11) Improvements to Pálghat treasury room; estimate Rs. 247, outlay Rs. 245.

. The following works were in progress:

(1) Sub-Registrar's office at Koduvayur; estimate Rs. 2,940, outlay Rs. 1,471.

(2) A new Sea Customs-house at Cochin; estimate Rs. 17,940, outlay Rs. 5,491.

(3) Additions and improvements to the office of Superintendent of Police at Mangalore; estimate Rs. 10,383, outlay (including previous year's expenditure) Rs. 8,849.

. Furniture was designed by the Executive Engineer for the Malapuram church towards the close of the year, and a few items of it ordered from Madras, the rest being made at the Mission carpentry establishment locally. Rs. 383 were expended against an estimate of Rs. 600.

. A sum of Rs. 8,025 was spent on repairs, the following being the principal works:

	Rs.
(1) Division office, Calicut	510
(2) Lunatic asylum, Calicut	1,429
(3) Protestant church, West Hill barracks, Calicut	102
(4) Repairs to roof of the new Sea Customs-house, Calicut	400
(5) Repairs to the roof of St. John's church at Cannanore	1,617
(6) Rebuilding the turret of the District Munsif's court at Tellicherry.	308

. **Presidency.**—A racket court and swimming bath were constructed at Government House at a cost of Rs. 2,434 and Rs. ~~3,351~~, respectively.

. An upper story was built and improvements were carried out to the Aide-de-Camp's quarters at Government House, Madras, at a cost of Rs. ~~12,001~~.

. The construction of City reserve police lines at Pudupet, commenced in the previous year, was completed. The outlay during the year was Rs. 21,500. The total outlay was Rs. 26,961 against an estimate of Rs. 27,785.

. The construction of an upper story to the office of the Deputy Commissioner of Police was completed. The total expenditure was Rs. 9,859 against an estimate of Rs. 10,290.

. At the Medical College, Madras, the construction of a lecture theatre hall, estimate Rs. 7,175, and of a dissecting shed, estimate Rs. 6,005, were completed during the year. The expenditure was Rs. 7,620 and Rs. 6,459 respectively.

. At the Madras Penitentiary new roofs to the close prison cells, estimate Rs. 11,200; a new work-shed, estimate Rs. 3,200; and quarters for two hospital assistants, estimate Rs. 5,774, were completed during the year at a total outlay of Rs. 9,177, Rs. 2,892, and Rs. ~~5,201~~, respectively.

. The new gate to the St. Mary's cemetery, Madras, commenced in the previous year, was completed at a total cost of Rs. ~~6,136~~ on an estimate of Rs. 6,285. The year's expenditure was Rs. ~~2,831~~.

. Rupees 409 were spent in providing new seats for St. Matthias' church at Vepery.

. The ornamental ceilings of St. George's cathedral were completed at an outlay of Rs. 2,486 on an estimate of Rs. 2,711.

. A sum of Rs. 5,020 was spent on furniture for Government Houses at Madras, Guindy, and Ootacamund.

. Thirty-two minor new works were carried out at a cost of Rs. 7,975.

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EXAMINER P.W. ACCTS. MTS.

. Rupees 936 were paid on account of compensation for sittings provided for Roman-Catholic British soldiers in the cathedral at Madras during 1885-86 and Rs. 333 on account of compensation for sittings provided for British soldiers and their families in the Wesleyan chapel at Bangalore during 1886-87.

. One hundred and twenty-seven repair works at Madras and fifteen at Bangalore were carried out.

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

(1) Repairs to Banqueting Hall and Marine Villa with out-houses; estimate Rs. 5,700, outlay Rs. 5,710.

(2) Plastering with cement the outside of the Government Secretariat office, Fort St. George; estimate Rs. 11,070, outlay Rs. 7,362.

(3) Repairing tombs in St. Mary's cemetery; estimate Rs. 2,685, outlay Rs. 2,352.

(4) General repairs to the Civil Orphan Asylum buildings; estimate Rs. 16,540, outlay Rs. ~~7,227.~~ 7215

(5) General repairs to the Public Works Workshops and Stores; estimate Rs. ~~9,202~~ 9392, outlay Rs. 4,499.

(6) General repairs to the General Hospital, Madras; estimate Rs. 3,025, outlay Rs. 2,886.

. **Chingleput.**—A lightning conductor to the Agricultural College at Saidápet was fixed at a cost of Rs. 2,240. The whole expenditure on the college, the upper story of which (except tower) had been completed at the end of 1886-87, was Rs. ~~18,336.~~ ~~21,351~~

. The construction of waiting and tiffin-rooms for the students of the Agricultural College was in progress on an estimate of Rs. 3,500, and Rs. 2,556 were spent during the year.

. Six minor new works were completed at a total cost of Rs. 2,988.

. The buildings at Government House, Guindy Park, and other buildings, churches, &c., were repaired at a total outlay of Rs. 15,586.

. **North Arcot.**—The Sub-Magistrate's cutcherry, with out-houses, at Arkónam commenced in 1886-87 was completed. The expenditure was Rs. 14,733 on an estimate of Rs. 14,245. The year's outlay was Rs. 6,547.

. Improvements to the Sub-Magistrate's office at Punganúr, also commenced in 1886-87, were completed. The expenditure was Rs. ~~3,799~~ 3849 on an estimate of Rs. 4,480; the saving was due to an existing sub-jail being utilised instead of building a new sub-jail provided for in the estimate.

. Four minor new works were in progress, of which three were completed. The expenditure was Rs. 2,671.

. Seven repair works were carried out at a cost of Rs. 1,916.

. **South Arcot.**—The Sub-Registrar's office at Villupuram, commenced in 1886-87, was completed at a cost of Rs. 2,760 on an estimate of Rs. 3,274.

. **Consulting Architect.**—The provision of an intermediate floor in the library of the Presidency College was commenced on an estimate of Rs. 7,651 and Rs. 827 were expended.

. The foundations for the columns to support the floor were laid and the columns were indented for through the India Office.

. Alterations and additions to the Ameer Mahal were carried out at a cost of Rs. 3,760.

. Rupees 5,196 were spent on twenty-nine minor works, the most important of which consisted in renewing the ornamental parapet on the north side of the Revenue Board Office with stone, providing a second boat made of wood for the floating latrine, and constructing a shed at the School of Arts.

. Rupees 15,150 were spent on annual and general repairs to buildings.

ENCLOSURE
2 AUG 38
EXAMINER

. **Trichinopoly.**—The construction of the district jail at Trichinopoly made satisfactory progress: block No. 3 A (36 cells) superstructure, arches and concrete to spandrils were completed; No. 3 B (22 cells) superstructure raised to an average of 3 feet; entrance gate superstructure raised to 3 feet; iron railings fixed; two gates fixed in position; and cut stone work on the side of gate in progress. The expenditure during the year was Rs. 18,938, and the total outlay Rs. 70,405 against a revised estimate of Rs. 85,244.

. Quarters for the European chief constable, central jail, Trichinopoly, were nearly completed; estimate Rs. 1,860, expenditure Rs. 1,695.

. A compound wall for the District Munsif's court at Kulitalai was completed at a cost of Rs. 1,455 against an estimate of Rs. 1,450.

. A compound wall and latrine for District Munsif's court at Ariyalur were commenced; estimate Rs. 1,230, expenditure Rs. 388.

. Rupees 465 were spent in completing certain repairs to the central jail, on which Rs. 2,745 were laid out in the preceding year.

. **Tanjore.**—The combined court-house for the District Munsifs of Kumbakónam and Valangiman was in progress. The lower story was completed, with the exception of plastering inside work, and the upper story was in rapid progress; estimate Rs. 34,342, expenditure Rs. 24,470.

. Improvements to the taluk cutcherry at Máyavaram were in progress, but the work was delayed from various causes; the expenditure was Rs. 4,907 from a grant of Rs. 7,000; estimate Rs. 11,680.

. The police station-house at Kumbakónam was extended at a cost of Rs. 2,748 against an estimate of Rs. 2,700.

. A building for the police office at Tanjore was purchased at a cost of Rs. 5,750.

. The construction of a latrine with five seats of Horbury's pattern, and of a compound wall to the police station-house at Tanjore was nearly completed; estimate Rs. 700, expenditure Rs. 552.

. Fixing iron gratings and doors, &c., to the office of the Superintendent, District Jail, Tanjore, was completed at a cost of Rs. 411.

. Rupees 3,862 were spent on repairs to the district court-house, taluk cutcherry at Shiyáli and sub-jail and latrine at Nannilam.

. **Negapatam.**—Alterations to the St. Joseph's College buildings at Negapatam. The buildings were purchased in the preceding year for Rs. 30,000, and estimates, amounting to Rs. 22,490, were sanctioned during the year under review for alterations to adapt them for the accommodation of public offices. The following work was completed:

(1) Improvements to the rooms allotted for the District Munsif.
(2) Do. do. for office of Assistant Superintendent of Police.
(3) Do. to the Executive Engineer's office.
(4) Do. to the Sub-Judge's court.
(5) Do. to the Sub-Magistrate's office.
(6) Do. to the Sub-Registrar's office.
(7) Do. to peons' sheds.

. The following alterations were in progress:

(1) Office for Assistant Commissioner, Salt and Abkári Revenue.
(2) Police station.
(3) Office for Head Assistant Collector.
(4) Gate and compound wall.
(5) General improvements to main building.

7938
37,570

The expenditure during the year was Rs. ~~7,879~~ against a grant of Rs. 8,000, and the total expenditure was Rs. ~~37,879~~ against an estimate of Rs. 52,490.

. Rupees 4,061 were spent on the collection of materials for the District Munsif's court at Tiruvalúr.

ENCLOSURE
2 AUG 88
EXAMINER, P & A DEPT.

. Improvements to the District Munsif's court at Mannárgudi were in progress; estimate Rs. 5,010, expenditure Rs. 3,959.

. The Government cemetery at Negapatam was extended at a cost of Rs. 1,317 against an estimate of Rs. 1,200.

. The conversion of the Executive Engineer's office at Kadambady into a dwelling house was completed, with the exception of fencing the compound; estimate Rs. 1,950, expenditure Rs. 1,741.

. **Madura.**—The following works were completed during the year:

(1) Sub-Magistrate's cutcherry at Madura; estimate Rs. 17,889, expenditure Rs. 4,492 in addition to Rs. 14,889 spent to the end of the preceding year.

(2) A second-class police station-house and one head and five constables' huts at Sáptúr; estimate Rs. 4,850, expenditure Rs. 2,691 in addition to Rs. 2,086 to the end of 1886-87.

(3) A second-class station-house and one head and five constables' huts at Ammyanáyakanúr; estimate Rs. 3,850, expenditure Rs. 3,630.

(4) Improving Deputy Tahsildar's office at Tirushuli; estimate Rs. 4,240, expenditure Rs. 4,136.

(5) Repairs to the taluk cutcherry at Dindigul; estimate Rs. 3,200, expenditure Rs. 3,319.

(6) Improving the district jail at Madura; estimate Rs. 2,820, expenditure Rs. ~~2865.~~ 2,801

. The following buildings were in progress:

(1) Sub-Registrar's office at Tirumangalam; estimate Rs. 2,864, expenditure Rs. ~~2,405.~~ 2407 Work completed with the exception of a small quantity of pointing, wood-oiling and flooring.

(2) A third-class police station-house and one head and five constables' huts at Veerapandy; estimate Rs. 2,930, expenditure Rs. ~~1,955.~~ 2055. The huts were completed and materials for the station collected.

(3) A third-class station-house and one head and five constables' huts at Samayanallúr; estimate Rs. 2,690, expenditure Rs. 2,041. Walls of the station-house and huts nearly finished.

4)) District jail at Madura. Providing wire-netting to the roof ventilators of blocks and removing and renewing the existing palisades; estimate Rs. 4,482; expenditure Rs. ~~369.~~ 357.

(5) Subdivision officer's bungalow at Uthamapoliam was almost completed; estimate Rs. 1,500, expenditure Rs. 1,466.

. Rupees 1,059 were spent in maintaining the garden and improving the earth connection of the lightning conductor in Tirumal Naick's palace at Madura; in repairing Public Works office building and Sub-Collector's bungalow at Dindigul, store-shed at Periyakulam, taluk cutcherry at Meylur, Deputy Tahsildar's cutcherry and Sub-Registrar's office at Uthamapoliam; and in paying municipal tax for the Government buildings at Dindigul.

. **Tinnevelly.**—A new record-room and improvements to the district court-house at Kokarakulam were completed according to the original estimate; expenditure Rs. 16,893, including Rs. 12,183 spent up to 1886-87; revised estimate Rs. 21,030.

. The following minor works were completed during the year:

(1) Additions and alterations to the huzur treasury at Kokarakulam; expenditure Rs. 2,017.

(2) Sub-Registrar's office at Radapuram; expenditure Rs. 2,202, including Rs. 100 spent in the preceding year.

(3) Improving the Sub-Magistrate's office at Tuticorin; expenditure Rs. 1,536.

(4) Strong room for Tinnevelly taluk cutcherry; expenditure Rs. 290.

(5) Compound wall to the police station-house at Singikulam—expenditure Rs. 260.

AUG 88

. A sum of Rs. 1,612 was spent in repairing the Executive Engineer's office at Palamcottah, in reconstructing strong room of the huzur treasury at Kokarakulam, and in repair of two other buildings.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Godavari (East).**—The navigation works at Dumagudem were maintained at a cost of Rs. 8,041 during the year. The refixing of the tail lock lower gate of Dumagudem was in progress. The trade is rapidly decreasing and only 445 boats passed through the canal against 650 in the previous year. The canal was closed from 15th March 1887 to 13th June 1887. Since the scouring sluices were ruined in 1886, the head of the channel that leads from above the anicut to the head lock and scouring sluice has been seriously eroded and in time may endanger the anicut; an attempt was being made at the end of the year to lessen this danger by throwing a stone bund across the fallen scouring sluices and to protect the margin of the channel on the anicut side with stone.

. **Bellary.**—The following roads were retransferred to the charge of the Public Works Department:

(1) Road from Ramandrug to Sandur frontier on the Hospet side, 8 miles.
(2) Road from Ramandrug to the junction with the Sandur-Yettinhatti road, 13 miles.

A sum of Rs. 1,370 was spent on repairs to these roads against an estimate of Rs. 9,653.

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

(1) Overseer's rest-house at Cherambadi; total cost Rs. 6,387, outlay during the year Rs. 3,387.
(2) Constructing a wooden bridge at Burliyar on the Ootacamund-Mettupalayam road; total cost Rs. 6,225; outlay during the year Rs. 1,999.
(3) Constructing a new road on Mountstuart; total cost Rs. 10,025 against an estimate of Rs. 10,855, outlay during the year Rs. 1,398.
(4) Constructing eight cart-stands on the Ootacamund-Kullar road; total cost Rs. 4,721, outlay during the year Rs. 3,579.

. Two toll-houses on the Kullar-Gudalur road were completed and a third nearly so at a cost of Rs. 1,235. The mile-stones between Ootacamund and Mettupalayam were renewed; the outlay for the year having been Rs. 1,094 against an estimate of Rs. 1,520.

. **Presidency.**—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; and Rs. 3,381 and Rs. 1,062 for repairing the bridges over the Kuam and the Buckingham Canal.

. **South Arcot.**—The piers of arches of the bridge over the Shatiatope anicut were raised to the anicut crest level. The manufacture of bricks was put in hand.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

Buckingham Canal.—An estimate of Rs. 17,496 for training the banks of the Adyár river was sanctioned, and the expenditure amounted to Rs. ~~1,034~~ 1929 against an allotment of Rs. 2,000. Some groynes were constructed and a diversion channel was cut. Both answered their purpose very well.

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

. **Nilgiris.**—The fencing of the Ootacamund lake, with the exception of the portion round the "Cedars," was completed; outlay Rs. 2,996.

Rs. ~~21,002~~ 31927 were spent on improving the water-supply of Ootacamund lying north of the lake.

Rs. 1,444 were expended on completing the Adam memorial fountain.

ENCLOSURE
2 AUG 88
EXAMINER OF ACCOUNTS

A raised foot-path from Charing Cross to the market at Ootacamund was completed at a cost of Rs. 1,107.

Under repairs a sum of Rs. 582 was spent on repairing the bund of Marlimund roservoir. The Ootacamund lake was kept clear of weeds at a cost of Rs. 384.

West Coast.—The revetment for the protection of the town of Ponani undertaken in the previous year was completed with an expenditure of Rs. 3,963 against an estimate of Rs. 4,280.

The sea terminations of the groynes, five in number, near the light-house at Cochin were raised to a uniform level of 6 feet above the high tide level for the protection of the light-house and its neighbourhood; estimate Rs. 4,610, outlay Rs. 4,022.

Presidency.—Rupees 834 were spent on the conservancy of the river Kuam and Rs. 601 in closing the Kuam bar.

South Arcot.—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was nearly finished in 1886-87, was completed, and the drainage sluice in it was almost finished. The outlay was Rs. 6,812 on an estimate of Rs. 8,550.

Madura.—An expenditure of Rs. 787 was incurred on surveying and estimating the proposed system of roads, &c., at Kodaikanal.

VI.—LOCAL—INCORPORATED.

Ganjam.—The Aska and Surada road was maintained at a cost of Rs. 413.

Godavari (East).—The earth-work of the Kovur-Manjair junction canal was finished at a cost of Rs. 55,057 against an estimate of Rs. 52,345. The outlay during the year was Rs. 2,300.

Five cattle-crossings on the canal were finished at a cost of Rs. 558.

The cut-stone coping for the aqueduct over the Tooliabhaga drain and iron railings and stanchions were finished. The cost of the aqueduct was Rs. 46,216 against an estimate of Rs. 40,000. The excess was principally due to alterations in the original design.

The Tooliabhaga new cut was completed; total outlay Rs. 8,923 against an estimate of Rs. 9,200.

The total expenditure up to end of the year on the Kovur-Manjair junction canal works amounted to Rs. ~~1,43,000~~ against an estimate of Rs. 1,45,525. The outlay during the year was Rs. ~~3,850~~.

Kistna (East).—Rs. 4,344 were spent against a grant of Rs. 3,391 on the landing stage at Bezváda. The excess was due to the collection of more material than was necessary. This will be transferred to other works in due course. The work was completed, except the return wall, which was in progress.

The ferry road at Bezváda was repaired and the Local Fund quarries made safe at a cost of Rs. 210.

Kistna (West).—The construction of a culvert under the good water channel at Nizampatam, estimate Rs. 900, was nearly completed. The expenditure during the year amounted to Rs. ~~453~~.

The river and canal banks used as roads were maintained in proper order at a cost of Rs. 881.

Nellore.—The Pennér anicut roadway was gravelled and materials to the extent of Rs. 122 were collected for the next year's repairs. The total expenditure was Rs. 567 against a grant of Rs. 600.

South Arcot.—The roads along the Coleroon bank, Veeranam tank-bank, and Perumaul tank-bank were kept in repair at an outlay of Rs. 1,599, 1,283 and 290.

GOLDSBURE
2 AUG 88

. Sand was collected for the road along Khan Sahib's canal-bank at a cost of Rs. 349.

The earth-work was executed to give the full top width of 8 feet to the road passing over the Perumukal tank-bund at an outlay of Rs. 274.

. **Madura.**—At the commencement of the official year, the foundations of six of the 14 piers of the Vaigai bridge had been completed and the next four partially executed. Work progressed steadily during the ensuing months, and piers and both abutments were finished, with the exception of the 10th and 11th piers in the deep bed of the river. The cut-stone piers were commenced in June, and were nearly completed to springing level throughout. Arch-work was commenced in January; the first arch was completed by the 3rd March, and second keyed on the last day of the official year. Considerable difficulty was experienced in obtaining satisfactory bricks for arch-work. Rupees 1,20,759 were spent during the year against a grant of Rs. 1,20,000; Rs. 75,246 were expended up to the end of the preceding year, making the total outlay Rs. 1,96,005, the estimate being Rs. 3,21,460.

. Ten miles of the road from Cumbum to the foot of the Gudalur-Peermade ghât were repaired at an outlay of Rs. 1,623.

. The construction of a rough stone retaining wall to the lake at Kodaikanal was completed at a cost of Rs. 470, of which Rs. 406 were spent in the preceding year.

. **Tanjore.**—A new road around Elathoor in lieu of the eroded portion of road No. 70, was completed at a cost of Rs. 1,690 against an estimate of Rs. 1,760, and 121 miles of roads on river-banks were maintained at a cost of Rs. 6,781.

. **Negapatam.**—Forty-five and a-half miles of roads on river-banks were maintained during the year at a cost of Rs. 3,939.

. **Trichinopoly.**—Twenty miles of road No. 20 from Sanganur to lower anicut were kept in order at an outlay of Rs. 987.

VII.—LOCAL—EXCLUDED.

Godavari (East).—A new fourth order dioptric light at the Hope Island light-house was set up at a cost of Rs. 1,097 against an estimate of Rs. 954.

Repairs to Vakalapudi and Hope Island light-houses were in progress at end of the year.

Kistna (East).—The salt creek from below the tidal lock at Masulipatam to the village of Gilakaladindi was cleared of silt at a cost of Rs. 1,736.

Buckingham Canal.—The construction of lines for lascars attached to the Armeghon light-house was completed at a cost of Rs. 1,889 against an estimate of Rs. 1,890. A new lightning conductor was fixed to the Armeghon light-house at a cost of Rs. 190.

The following repairs were carried out:

		Rs.
(1)	Repairs to Superintendent's quarters and out-houses of Armeghon light-house	91
(2)	Repairing damages to Armeghon light-house column	71
(3)	Repairs to the Armeghon light-house	83
(4)	Repairing thatched store-shed of the Armeghon light-house ...	30
(5)	Repairs to Pulicat light-house	236
(6)	Do. to Superintendent's quarters of Pulicat light-house ...	239

. **West Coast.**—The light-houses at Calicut and Cannanore were provided with lightning conductors at a cost of Rs. 255 and of Rs. 218, respectively, and they, as well as those at Tellicherry and Mangalore, were repaired and painted at an aggregate cost of Rs. 935.

. Materials for a wire-fencing round the light-house at Calicut were ordered, and the thatched roof of the watchman's shed improved with tiles at a cost of Rs. 319.

ENCLOSURE
2 AUG 88

Rs. 52 were spent in repairing the cranes at Vypeen and Cochin.

Presidency.—An estimate of Rs. 1,020 was sanctioned for repairs to the light-house, Madras; but the grant was made too late in the year to admit of any work being done.

Chingleput.—The light-house at the Seven Pagodas was in progress on an estimate of Rs. 8,165; the work consists of—

(1) Constructing a stone platform for a fourth order light;
(2) Construction of Superintendent's quarters;
(3) Do. of lascars' lines;
(4) Do. of two sentry boxes;

the expenditure to the end of the year was Rs. 6,253, and the work was nearly completed.

Tinnevelly.—A new earth-plate to the lightning conductor attached to the light-house at Hare Island was completed at a cost of Rs. 42, and an outlay of Rs. 29 was also incurred in testing the lightning conductor.

VIII.—ESTATE WORKS.

Gundamanaikanur Zemindari.—Estimates, amounting to Rs. 9,734, were sanctioned and funds allotted, and the works were put in hand in July, but several of them were stopped at the request of the Collector. The total expenditure during the year was Rs. 4,566.

Cunnivady Zemindari.—All the works were completed except two, and Rs. 3,192 were spent during the year.

Ramnad Zemindari—*Civil Buildings.*—The original grants were Rs. 11,000 under ain (revenue proper), 23,000 under devastanam (temple endowment funds), and 6,000 under chuttram (charitable endowment funds); the revised grants were Rs. 14,154, 21,346 and 14,260, respectively; while the expenditure was Rs. 7,418, 9,941 and 9,722, respectively; showing a total short outlay of Rs. 23,679 with reference to the total revised grant.

The construction of an office for the Superintendent of devastanam was in progress; the total expenditure was Rs. 3,847 against an estimate of Rs. 5,920. The work was not completed owing to some misunderstanding with contractors and to difficulty in carting materials to site.

An outlay of Rs. 429 was incurred in constructing a granary at Rajasingamangalam; the estimate being Rs. 3,070. The work was started in January 1888, but could not be proceeded with vigorously owing to scarcity of labor.

The following minor works were completed:

(1) Constructing a hall in front of the residence building of the fourth widow's quarters in the palace at Ramnad; estimate Rs. 1,370, expenditure Rs. 1,367.
(2) Constructing a granary at Zonathy; estimate Rs. 1,230, outlay Rs. 1,274.
(3) Improving estate building at Kamuthy; estimate Rs. 600, outlay Rs. 503.
(4) Constructing an enclosure wall with gate to the west block of Mallanjivar's chuttram at Tirushuli; estimate Rs. 223, expenditure Rs. 206.
(5) Reconstructing the Pilliarcovil at Kamuthy; estimate Rs. 297, outlay Rs. 272.

The following works were in progress:

(1) Constructing a granary at Maranthai; estimate Rs. 1,815.
(2) Constructing divisional cutcherry at Sayalgudy; estimate Rs. 440.
(3) Constructing jamabandi cutcherry or granary at Kamuthy; estimate Rs. 1,725.
(4) Improving the taluk cutcherry, Salagramam; estimate Rs. 900.
(5) Constructing stable and cook-room near travellers' bungalow at Kamuthy; estimate Rs. 47.
(6) Reconstructing elephant shed at Tirupallani; estimate Rs. 265.

ENCLOSURE
2 AUG 88
EXAMINER, P & W ACCOUNTS

Out of 58 works in progress under different heads under Repairs, 28 were fully completed.

. *Agricultural Works.*—The original grants were Rs. 79,000 under ain, 17,000 under devastanam, and 4,000 under chuttram. The revised grants were Rs. 59,366, 9,712 and 1,427, while the expenditure amounted to Rs. 43,626, 4,874 and 1,142, respectively, showing a total short outlay of Rs. 10,863 with reference to the total revised grant.

The following works were in progress:

(1) Improvements to Ramnad large tank; total expenditure Rs. 13,956, estimate Rs. 20,040.

(2) Improvements to Rajasingamangalam tank; total expenditure Rs. 12,668, estimate Rs. 18,650.

(3) Improvements to the Kalari tank; total expenditure Rs. 5,321, estimate Rs. 17,610.

(4) Improvements to the Anaikulam tank; total expenditure Rs. 6,367, estimate Rs. 14,085.

(5) Raising and extending the Gundar dam; expenditure Rs. 775, estimate Rs. 13,600. The work was commenced late in the official year.

. Most of the requisitions of the estate authorities under the head Minor Works were complied with. Out of 131 works in progress, 44 were completed.

Buildings and Roads Branch

List of subjects proposed for the General Chapter of the Administration Report for the year 1887–88

Ootacamund Water Supply Project.

Do. Improvements

Do. Marlimund Lake damages &ca

Do. Breeks Memorial School buildings

Do. Jail Buildings – Work at Secretariat &ca
Utilization of

Bangalore Water Supply

Madras Harbour Works – Entrance &ca

Gopaulpore Pier works

High Court Buildings at Madras.

Presidency Magistrate's Court

Buildings for Registrar Genl. & Registrar of the Diocese

Proposed compulsory retirement of members of the Engineer Establishment.

Appointments of Students of the College of Engineering

Block in promotion of Military Upper Subordinates

Periar Project Works & deputation of
Colonel Pennycuick to England –
Do. Treasury &ca. for
Vaigai Bridge Works & Credit Note
system of payment &ca. –
Road from Cumbum to foot of
Gudalur Ghât –
Tank Restoration Scheme – Arrange-
-ments for future working
&ca. of
Forms of Contract Bonds &ca.
Coal Store for Ordnance Deptt.
and acquisition of site –

Admn Report

S.A.P.

C.A.W.

Paras for Part I of the Admn Report received this day –

With respect to probable date of issue, L reports that the maps cannot possibly be completed before the end of Septr.

The maps according to old style were all on stone & proofs had been approved by Dw, when your note came directing that information regarding light houses roads, railways &c should be inserted.

This work was at once taken in hand, & the corrected maps were submitted to & approved by W at Madras on 4th Inst.

Part –

The corrected maps are now being lithographed & proofs of two sheets have been passed, but I cannot promise to turn out the complete works before the end of Septr. The number of different colours to be shown will make the works a tedious affair - D.W. has seen the maps, & is quite of opinion that the copies cannot be turned out under a month, all reasonable expedition being used.

Our report is due with Public Dept by 15th Sept., & with D.W.'s approval, I suggest that advance copies, without the maps, or if possible, with only the little map forming the frontispiece, be despatched to the Public Dept

early next month, the complete copies, with all maps, being sent afterwards to India, Home Govt &c. - Or D.W. thinks the Report itself might be issued at once, & the maps might be bound separately & issued when ready, early in Octr. - will you kindly take W's orders on these suggestions.

Part II of the Report has been in type some time, & W glanced over a proof when here on the 4th - I shall have a complete proof of Parts I & II sent to Dept on Monday or Tuesday next - C's figures

Part

for para 1 are all ready. On return of the proof from Cty. copies can be struck off in a day or two. It is the maps that have complicated the matter.

Cu
16-8-88

To W Submitted for orders.

R S
18 VIII. 88

I think we must send copies into old maps first, stating that pattern copies into revised maps will follow

Dr
18/8/88

S A W
R S
18 VIII. 88

S.A.W.

SAW

Herewith articles for the Administration Report, Part I, which you will find to correspond with the accompanying list, as corrected. Please have them put into type and send up complete "Proof" of the Report as soon as it is ready. Meanwhile, please report for Co's information the probable date of issue of the report.

Are C's figures ready yet? If not, when will they be available?

My list of subjects had better be returned with the "Proof".

R S
14 VIII. 88

C.A.W.

I forward herewith a complete proof of the Admn Report for approval.

The figures in Part II have been checked by C. A proof copy of Part I is going to C today

in view to his checking all figures which come under his audit. There are one or two queries in the proof which you will doubtless answer - the estimate for work on the Madras pier cannot be checked here as the original report is with you.

If you will get the letter press of the whole report approved, I shall see that all figures are checked before issue.

I return your draft of part I as well as your list of subjects.

Have just received his order to the effect that the Report should be issued with the old maps in the first instance, leaving the revised maps to follow. This however cannot be done, as the impressions on stone have already to a great extent been corrected. I shall however urge on the work, & get from L. if possible, sufficient copies of the maps for the copies of the Report going to Public Dept. G. of I. & S. of S.

Cu
20. 8. 88

Sent now checked this from G.O. 1214 W & 25-4-88

Approved

Sd/ "Proof" submitted for approval
R.S. 27 VIII 88

S.R.

Herewith the revised maps required to illustrate the Administration Report.

Railways Canals Roads and Light Houses have been corrected up to date

The information regarding Railways and Canals has obtained from the Irrigation and Railway Branches

The roads have been marked from Rev. Survey and Ordnance Maps.

The light houses have been taken from G.Os Nos 336-340 d/27th July 1887 and Dr McLain's Manual

I have attached to each revised map a copy as it was issued last year in order that you may see the additional information given.

Should you requir

more information on
please let me know
what it is and
I will have it inserted
in the map.

The Pottingly ghat
road and the road
leading to the Periyar
works viz the
Cumbum Gudalur
road have been
shown.

The printing of
some of the names inserted
are smaller than
the printing generally
but this will be rectified
when the maps are being
lithographed.

Cinn

1/8/88

S.A.W.

W wishes that the
Maps in the Administration
Report should
be carefully revised
particularly with reference
to Railway lines. Canals
and Main roads.
Light houses should
also be shown.

The maps should
contain Explanatory
references to
Railway lines completed

Do in progress....
Projected lines not required.

Canals will of course
be depicted by blue
lines. and all of these
should be quite distinct

The Periyar works
should be shown. the
road leading to them
as well as the Pottingly
ghat, and such other
works as may be
specially mentioned
in the list of subjects
sent to me.

W wishes the "proofs"
to be examined by D.W.

more informa[illegible]

and then shown to him, when he calls at Madras on his way to Ooty.

A.S.

20-VII.88

The present maps are very inaccurate as regards Canals.

A.S.

The Revised maps of the Administration Report for 1887-88 have been finished & handed to L. for print.

[illegible]

4-8-88.

I

W want a report as to when the Admin Report will be ready for issue.

This will ~~[illegible]~~ depend in a great measure on when the maps will be ready

will complete obtain from L. Branch the approximate date by which the maps will be struck off

[illegible]

16/[illegible]

more informa[illegible]

(1) Grants & Expenditure

(2) Madras Harbour Works

(3) Gopalpur Pier

(4) Cruz Milagre Dam

(5) Mangalore Harbour

(6) Improvements to the Port of Negapatam

(7) Negapatam drainage & water supply

(8) Bangalore Water supply

(9) Ootacamund Water supply Project

(10) Artesian Boring in the Kortalayar Valley

(11) Wynaad Roads.

(12) Potinghi ~~[illegible]~~ Ghat & Potinghi Korafut Road

(13) Kullar - Gudalur Road

(14) Road from Cumbum to foot of ~~[illegible]~~ Gudalur - Peermade Ghat

(15) Widening of the Elephant Gate Bridge Madras

(16) Vaigai Bridge at Madura & Credit - note system

...ral Remarks.

(17) Improvements at Ootacamund

(18) Improvements to the South Beach Madras

(19) Tirumal Naick's Palace Madura.

(20) Breeks Memorial School Ootacamund

(21) New Building for the Madras High Court

(22) New Court House for the Presidency Magistrates Madras.

(23) Combined Police Station vaccination. Depot & Fire Engine Shed Madras

(24) Conversion of the Dist Jail buildings at Ootacamund into public offices.

(25) Improvements to the Madras College of Engineering

(26) Roman Catholic Military Church at Wellington

l Remarks.

(27) Improvements to the Ootacamund Lawrence Asylum Buildings

(28) Presy P.W. Stores

(29). Presy P.W. Workshops

(30). Abolition of office of Store Keeper of Machinery

(31) Govt. Brick & Tile Manufactory Madras

(32) Govt Brickfields Ootacamund

(33) Govt Lithographic Press.

(34) Inspection of Sight Houses.

(35) Divisional Changes

(36) Revival of Tank Restoration Operations

(37) Opening of the Periyar Project Works

(38) Proposed Compulsory retirement of officers at the age of 50 years

(39) – Service Books –

A

I - General Remarks.

I

Please have the maps revised in accordance with this note —

The work now going on should be stopped

Things you will get get all necessary information from the Reg & Irrn Branches Admn Report maps.

Cy

23-7

I- General Remarks.

The administration of the Department continued in the hands of Colonel J.O. Hasted, R.E., during the year under review, and Colonel H. R. Mead R.E., held the position of Chief Engineer for Irrigation and Joint Secretary to Government in the Irrigation Branch which he assumed during the previous year.

Departmental Establishment. In Feby 1887, the Govt of India called on the Madras Government to frame a careful estimate of the Engineer and Upper Subordinate Establishment, with due regard to the work to be done. The estimate was supplied in detail with observations tending to show the economical character of the scale of establishment existing in Madras and explaining what had already been done to reduce expenditure. The Govt of India admitted that the administration

of the Madras Presidency is mainly conducted on an economical system, and ~~did not~~ refrained from pressing their suggestion for reduction in the Engineer grades. They, however, thought that the number of Upper Subordinates might be reduced by substituting Lower Subordinate agency in certain cases. The Chief Engineer was accordingly directed to keep the subject in view when the necessity arose for augmenting the temporary Establishment - it being considered impracticable to place officers of the lower class in the large and responsible charges usually held by Upper Subordinates in the Madras Presidency. The possibility of reducing the staff of Accountants and clerks employed in the Examiner's office was also referred for the consideration of Government. This matter is still engaging attention.

It was ruled by the Govt of India that any Civil Engineer of the P.W. Dept, who, on reaching the age of 50 years had not attained the rank of Supdg Engineer would be liable to be called on to retire, either immediately or within a specified period according to the length of his previous service - furlough admissible under the rules being however (conceded prior to retirement). ~~Military officers would also be liable under these orders to vacate their appointments in the P.W. Dept under similar conditions.~~

This being been disapproved by the Secy of State had better be omitted.

N.B.

A

General Remarks

Establishments

2/

3

Grants and expenditure. — The following statement gives the Grants & expenditure under the different heads. —

	Original Grant	Revised Estimate	Expenditure
Imperial Military Works.	550,000	573,500	528,310
Imperial Civil Works	33,500	28,700	22,214
Provincial Civil Works.	17.07.000	19.12.000	19.49.944
Local Incorporated funds	2.68.000	2.12.000	2.15.766
Local excluded funds	"	132012	87,293
Estate Works.	321,866	307,582	174,542

Madras
8 August 1888

Major R. E
Examiner P. W. Accts
Madras

8/8

A

General Remarks

Establishment

2/

3

Grants and expenditure. – The following statement shows the grants & expenditure under the different service heads. –

	Original Grant	Revised Estimate	Expenditure
Imperial Military Works.	550,000	573,500	528,310
Imperial Civil Works	33,500	28,700	22,214
Provincial Civil Works.	17,07,000	19,12,000	19,49,944
Local Incorporated funds	2,68,000	2,12,000	2,15,766
Local excluded funds	"	1,32,012	87,293
Estate Works.	3,21,866	3,07,582	1,74,542

Madras
8 August 1888

[illegible] 8/8

[illegible]

Major R. E.
Examiner P. W. Accts
Madras

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Enl
7872/88

Madras Harbour Works.

Having carefully considered the effects on the Harbour Works of the cyclone which passed near Madras at the end of 1887, and judging from previous experience of the action of the sea within harbour limits, Captain Taylor, the late Port ~~Master~~ Officer ~~Attendant~~, came to the conclusion that the only way in which smooth water could be secured would be to close the eastern entrance. He suggested an opening at the north-east corner, protected by an extension of the outer sea wall in a northerly direction. The smooth water thus obtained would, he considered, enable many beach improvements to be adopted, and would relieve the work of the port which suffers seriously from the inconvenient height of the iron pier. The closing of the eastern entrance would also, he pointed out, enable a very much larger portion of the deep water space to be utilized; a matter of great importance in

in the limited area of the Madras Harbour. The ~~convenience of~~ ingress and egress for steamers would also, be considered, be facilitated by a north-east passage. The Harbour Trust Board thereupon unanimously requested a reconsideration of the question of entrance, and recorded their opinion that a north-east entrance was absolutely essential to the success of the harbour. The Secretary of State, after some correspondence, ~~ultimately~~ decided that the question of the harbour entrance should be reconsidered and referred to a Committee in London, before which Captain Taylor was nominated to represent the Harbour Trust Board. ~~at London~~ The Committee formed consisted of Admiral Nowell Salmon C.B. V.C., Admiral Sir George Nares K.C.B., and Sir John Coode K.C.M.G. They were instructed to examine the question thoroughly, and obtain such nautical and other evidence as they might think necessary. The report of this Committee was received

in

Should be 'before' [illegible] to gave [illegible]

in December 1887. Having carefully considered all the evidence they had been able to collect, which comprised the views of all classes interested, or who have had opportunities of forming an opinion, the Committee pronounced in favor of an entrance at the north-east corner, with a covering arm, the entrance on the east face being closed up. The report was supplemented by observations by Mr Parkes, Consulting Engineer in London, and designer of the works. When the year closed, the whole matter was under the consideration of the Harbour Trust Board.

The progress in the construction of the harbour works was retarded during the year owing to the unsettled condition of the question of the entrance. At the north pier, ~~twelve~~ 12 blocks were set in the superstructure, advancing the work by a length of only ~~six~~ 6 feet, and making the termination of the pier, 2525 feet from the commencement of the block

work

work - 575 blocks were also deposited in the wave breaker of the north pier, making this work nearly complete to the full section except at the entrance end. There were also 905 tons of stone deposited in the base and foreshore of this pier. At the South pier, ~~better progress was made~~, 684 blocks were set, and an advance of 417 feet in length was made - 443 blocks were dropped into the wave breaker and 12,267 tons of stone deposited in the base and foreshore of the work -

The general depth of water inside and without the harbour remained almost unchanged.

The total expenditure on the works was ~~Rs~~ 3,92,718, made up as follows:-

Works	~~Rs~~	3,63,695.
Establishment	"	65,283.
Tools & Plant	"	7,602.
	~~Rs~~	4,36,580.
Deduct Suspense	"	43,862.
	~~Rs~~	3,92,718.

The total expenditure from the commencement of the works was ~~Rs~~ 24,24,930, against the sanctioned estimate of ~~Rs~~ 45,90,051.

During the year, the post of Superintendent of the Harbour Works was joined to that of Engineer to the Harbour Trust Board, and a number of small works were carried out by Mr Thoroughgood, in connection with the landing and shipping of goods, and regulation of traffic on the iron pier and on the beach.

Amongst these, 2520 feet of Railway lines were laid on the foreshore to relieve traffic on the iron pier, and cranes were erected commanding these lines. A portion of the shore was levelled, rivetted and rammed down on the surface to serve as a "hard". Twenty-nine cranes were put into good order, and the iron pier itself was thoroughly repaired, and an embankment substituted for timber and iron work

for

for length of 230 feet. The estimate for the work to the iron pier amounted to Rs: 29,884/-

Madras Harbour Works

R.S.

Gopalpur Pier.

This work was virtually complete at the end of the year and was handed over to the Marine Department at the beginning of April. An approach to connect the pier with the road will be made under local sanction. The revised estimate for the work amounted to Rs: 3,08,200, and the expenditure when finally booked will probably equal that sum. A scale of fees on all persons, carriages, merchandise, baggage and other articles shipped from or landed at the pier will be duly levied in accordance with the original intention, to meet the cost of establishment, and interest on the sums advanced for the construction of the pier, and to provide a sinking fund for extinguishing the debt in about twenty years.

R.S.

(3)

Gopalpur
Pier

8

Negapatam Harbour

The state of the port of Negapatam was not satisfactory; the mouth of the river being quickly silted up. Energetic dredging was recommended by the resident merchants; & the local marine authorities who have charge of the dredging operations were directed to take the requisite measures. The boat basin which had proved a failure was ordered to be filled up & the main town drain to be diverted by the agency of the P. W. Department; but owing to ruins and the necessity for the extension of the jetty wall above the face of the boat basin, these works could not be completed during the year. Rs 2,036 out of an Estimate of Rs 2,900 were spent on diverting the drain, and Rs 1,174 on the boat basin, the Estimate for the latter work being Rs 2,284.

An Estimate amounting to Rs 17,900 for extending the jetty wall inland was sanctioned towards the close of the year.

N.S.

(6)

Negapatam Harbour

6

9

Negapatam Drainage and Water Supply.

The investigation by the Executive Engineer of a scheme for the drainage and water supply of the town of Negapatam was concluded during the year.

Drainage. It was found that the town is capable of easy drainage so far as levels are concerned, being well above High Tide Level, but the streets are so narrow that there is not sufficient room for even moderate sized surface main drains. It is therefore proposed to adopt the type ordinarily used for minor drains. The service drains are intended to be used for "domestic waste" only, and not to carry off rain or storm water. The drains are to be constructed with concrete and plastered with cement, and will be flushed by means of the Kothan Kolum which is conveniently situated for the purpose. The approximate cost of the scheme is Rs. 80,000.

Water Supply. The supply ~~will~~ is to be drawn off from the

(4)

Negapatam Drainage & Water Supply

the Vettar at the site of the Devannadi Dam, by means of pumps, into a service reservoir capable of holding a week's supply of 15 gallons per head per day for a population of 54,000. The water will be taken by means of a masonry conduit to a second cistern near the town, raised to a level of 20 feet and thence distributed by iron pipes. The approximate cost of the scheme is Rs. 5,30,000, with an annual charge for working expenses of Rs. 40,000.

The schemes have been remitted to the Municipal Council for consideration.

S.S.

10

Bangalore Water Supply.

The proposals for improving the Water Supply at Bangalore, referred to in the previous report as having been laid before the Government of India, were considered during the year. The scheme provided for supplying distilled water for drinking and cooking, while for other purposes, the Hakeer tank supply was to be improved. The estimated cost of the works was Rs. 776,860, in addition to an annual charge of Rs. 84,600 for maintenance of the distilled water system, and Rs. 27,000 per annum for the Hakeer tank supply. The Government of India remarked that, in view of serious objections to a dual system of water supply, and the great annual expenditure involved, they were unwilling to accept the proposals as the only alternative open for providing a satisfactory water

water supply, and they expressed the hope that further investigation might shew that a satisfactory supply could be obtained, involving a smaller recurring expenditure. They accordingly requested that further examination of the country round Bangalore might be made.

The Government of India further remarked that from the papers submitted, the Agram Scheme seemed to offer a reasonable prospect of a satisfactory supply, especially if the four villages, the drainage of which the Agram tank receives, were removed; and they requested that the cost of this as well as of reserving the whole drainage area of the tank should be ascertained, as it might then be found that the difficulties and expense would not be prohibitive as had been supposed. It was also remarked that the annual expenditure connected with this scheme might possibly be reduced if a pipe were taken from the higher level tanks, and the troops supplied by gravitation so long as this supply lasted. Finally it was suggested that if the Agram

Scheme

Scheme proved to be not practicable, it might be worth while to ascertain the cost of pumping a full supply from the Cauvery.

The Supt.g Engr: was thereupon directed to ascertain and report the cost of removing the four villages which drain into the Agram tank, and of reserving the whole drainage area of the tank. Also what reduction in the estimated annual expenditure connected with Captain Romilly's Project A could be effected by taking a pipe from the higher level tanks. The Supt.g Engr: was also requested to prepare, if possible, a rough estimate of the cost of pumping a full supply of water from the Cauvery.

The Government subsequently resolved to publish the results of all the investigations which had been made of late years into the question of the Bangalore Water Supply, and to invite, by competition, the submission of a workable and economical scheme for the supply of pure drinking water for the troops. A reward of Rs: 1000 was accordingly offered for

the

(8) ✓

Bangalore Water Supply

the best essay on the subject. It was made a condition that the scheme taking the prize should be original, and not simply a modification of any of the proposals already laid before the Government, though any one or more of the suggestions contained on such proposals might be applied if necessary. A further sum of Rs: 1000 was promised if the essay was adopted as the foundation of any scheme which the Govt. may resolve to carry out. The Chief Engineer was to decide, whether any essay fulfilled the required conditions - and his decision was to be final. In compliance with this invitation a number of essays were submitted, but the question had not been decided when the year closed.

R. S.

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102

Ootacamund Water Supply.

The pipes for the northern water supply scheme arrived early in May and laying was commenced shortly afterwards. The pipes were in the first instance jointed with Portland cement, but the work did not turn out well and it has since been found necessary to melt lead for the joints. The failure of the cement joints has greatly delayed the work. It will, it is expected, be completed during the current year. The expenditure during the year was Rs: , and the total expenditure from the commencement Rs: , against the sanctioned estimate of Rs: .

blanks to be filled in

R. S.

(9)

Artesian and Water Supply

9

13

Artesian boring in the Kortabayar Valley.

At the end of the previous year a depth of 200 feet had been reached. Further boring to a depth of 300 feet was sanctioned in June 1887, and the following strata were passed through.

At 207 feet - bed of lime stone, greyish and moderately hard.

208 " fine grey clay indurated, same as that ~~found~~ above 200 feet.

210. " hard black clay indurated.

216 " bed of grey lime stone.

222 " grey sandy conglomerate containing nodules of carbonate of lime and shells, also prints of leaves and of other vegetable matter.

233 " grey coarse sand (quartzite) slightly cemented so as to form a conglomerate

249 " the same, but containing shells etc and mica,

263 " mixture of sand and grey clay traversed in places by thin layers of blue clay very dark & containing iron pyrites. This continues ~~down~~ to 300 fe

Artesian boring

It was originaley thought that the alluvium did not extend beyond a depth of 200 to 250 fut: and, as it is desirable to penetrate this alluvium, below which artesian waters will probably be found, the boring was authorised to be continued to a depth of 1200 ft. unless gneiss is reached or water tapped at a less depth. At the end of the year the depth reached was 371 fut, still in alluvial soil. The total expenditure incurred on the work was Rs. 6,027 against the sanctioned estimate of Rs 8745.

R.S.

Wynaad Communications.

The work of reforming & metalling the Calicut-Vayitri road was in active progress. The work was almost completed up to the 18th mile from Calicut, and the Tamaracherry ghat was quite finished, leaving only the metalling of the portion between the 18th mile and the foot of the ghat to be taken up during the South West monsoon of 1888. Of the iron bridges, that at Kodanga poya, of two 50 feet spans had the girders in position and was expected to be open for monsoon traffic. The Ingapoya bridge foundations were laid and the materials for the superstructure collected to a great extent. The foundations for the Vengari bridge were excavated and part of the materials collected at the site of the work. Two minor bridges of 20 feet & 15 fut span were also erected. Mile stones were fixed as far as the 26th mile, and placed at site on the remaining portion as far as Vayitri.

The road was kept open for cart traffic during the year at a cost of ~~Rs~~ 18,934. The total outlay on new work & repairs amounted to ~~Rs~~ against a grant of ~~Rs~~ 1,55,897, and the outlay from the commencement amounted to ~~Rs~~ 3,10,925

against

against the sanctioned estimate of Rs 4,11,965.

J. (11)

Wynaad Communications

As regards the Vajitri-Gudalur section, a sum of Rs 7,772 was spent on the masonry and approaches of the Sholadi bridge against a grant of Rs 7,584. The road has now been made over to the Nilgiri Division for Completion.

R.P.

11

15

Potinghi Ghat and continuation above the Ghat.

An expenditure of Rs: 14,401 was incurred during the year on bridge work for the Potinghi Ghat. A cast iron girder bridge of one ~~Perfect~~ span of 76 feet was got out from Home to be laid across the Sunki river, and building materials were collected at the site of this work as well as at the site of the Kallagedda bridge. Considerable difficulty was experienced in conveying the iron work from Bimlipitam where it was landed in October to foot of the Ghat. The erection of the bridges will now it is hoped, be actively proceeded with. On the road from Potinghi to Koraput an outlay of Rs: 71,627 was incurred. Two iron girder bridges absorbed Rs: 24,006, the remaining sum, Rs: 47,621, being spent on the formation of the road and the collection of materials. The distance between Potinghi and Koraput along

along the line selected for the road is 30 miles. At the Jeypore end, the earthwork was completed for a distance of 6 miles, of which about 2 miles were metalled and gravelled. At the Koraput end, the earthwork was completed for 7½ miles, and was in progress for a further distance of 2½ miles. Metal was spread on two miles of this section, and the requisite stone was collected at the road side for 6 miles. A large quantity of road metal was also collected along the line in other places where the earthwork has not been commenced. Nine small tunnels were either complete or in progress, and a large quantity of building material was collected at most of the bridge sites.

The progress on the work was necessarily slow owing to the difficulty of procuring labor in this remote, unhealthy & thinly populated line of country. What local labor does

does offer is unskilled and unaccustomed to work of this character.

The survey for the construction of the road to Bastar in the Central Provinces was completed in 1886-87 to Amerkot, a distance of 75 miles from Koraput. During 1887-88 a survey was made via Jeypore to Berigumma, a distance of 26 miles, and the original survey was continued from Amerkot to within 15 miles of the frontier of the Central Provinces. The country to be traversed is covered with thick jungle and is most unhealthy.

These conditions necessarily affected the progress of the work.

(12)

Potrughy Ghats

Road from Kullar to Gudalur.

This is a section of the main line of communication which, commencing at Mettupalaiyam on the eastern side of the Nilgiris, traverses the hills and Wynaad, and joins the road starting from Calicut on the Western Coast. The road, which includes the Coonoor Ghat on one side and the Gudalur Ghat on the other, was maintained in fairly good order during the year under review at a cost of Rs: 41,000. It was necessary to correct the distances between Mettupalaiyam and Ootacamund, and new mile and furlong stones were supplied throughout, the following distances being fixed:-

Ootacamund to Coonoor 11 miles
Do to Mettupalaiyam 32 "
Do to Gudalur 31 "

Rs:

(13)

~~Rs.~~ 6239 were spent on repairing the bridges, and an estimate of Rs: 1380 was sanctioned for constructing rough stone revetments in places between Coonoor and Kullar. Collection of material for remetalling was in active progress at the close of the year.

Road from Kullar to Gudalur

18

Road from Cumbum to the foot of the Gudalur - Purmaad Ghat.

A sum of Rs 46,739 had been spent on this work by the Local Board prior to its transfer to the Public Works Department in 1885-86, as noticed in the previous report; and a further sum of Rs: 6382 had been laid out on materials at site. A balance of Rs: 43,768 out of an estimate of Rs: 90,507 was thus available for expenditure by the P. W. Department. The following works remained to be done.

(a) Repairing culverts and road dams

(b) Improving and regravelling completed portion of the road which had deteriorated.

(c) Completing bridges over the Surungan and Kakanodai nullahs

(d) Constructing a bridge over the Kurnvanuthu river.

A

(14)

Cumbum Sudaluru Road

A sum of Rs: 19,922 was spent on the work, during 1887-88, and this added to the outlay of Rs: 55,578 up to the end of the previous year, made a total of Rs: 75,500.

Cout of the ten miles of road to be metalled have been gravelled, and metal has been collected for completing the remaining four miles; which, although incomplete, are practicable for traffic.

Work to the bridge over the Kuruvanuthu was pushed on vigorously during the last nine months of the year. One arch was finished and the centering for the second was completed, and the arch started. The wings were raised on an average 7 feet above the springing line of the Arch, and the north approach was almost finished.

The bridges over the Kakanodai and Surungan nullahs were also completed.

R.S.

19

14

Widening the Elephant Gate Bridge Madras.

This bridge spans the Buckingham Canal near the Salt Coleurs Station of the Madras Railway. There is a Railway level crossing to the west of the bridge and the traffic at this point, at all times great, is frequently congested to an inconvenient extent by the shutting of the Railway gates to allow of the passage of trains. The bridge is a narrow structure, and has been found quite unequal to the accommodation of the foot and wheeled traffic thus concentrated. It was accordingly decided, after prolonged discussion with the Railway Company and the Municipality, that the bridge should be widened at the expense of Government; the Municipality being liable for future maintenance. The P.W. Dept. was accordingly entrusted with the work and spent Rs. 9,506 on it during the year; the sanctioned estimate being Rs. 20,200. –

R.S.

Jon

(15)

Elephant Gate Bridge

20

15

Tirumal Naick's Palace, Madura.

The total sanction for the restoration of this building and its adaptation for public offices now amounts to Rs: 3,35,109, and the expenditure up to the 31st March 1887 was Rs: 3,11,469.

The works in progress during the year were the following:-

(a) Restoration.

(b) Locating the Collector

(c) Providing record racks to the District Court.

(d) Providing lightning conductors in dome G. of the south-east turret.

Of these, (b), (c) & (d) were almost completed.

The expenditure on (a) amounted during the year to Rs: 1715. and the total expenditure, from the commencement of the work, to Rs: 1,04,217. The restoration of this important structure was commenced in 1870. The work has since

been

(19)

Tirumal Naick's Palace

been steadily prosecuted by regular annual allotments, and the primary object in view, of preserving from decay one of the finest historical monuments of ancient native power to be found in Southern India, has now been successfully accomplished; the building itself being adapted to the uses of the Public Service.

R.S.

16

21

New buildings for the Kreeks' Memorial School, Ootacamund.

Work on these buildings was continued during the year, and completed before its close. The buildings form a handsome structure in a commanding and central position. They have since been ~~were~~ opened as a school ~~in March last~~ by His Excellency the Governor with fitting ceremonial. The work was completed for a sum of Rs: 47,000, the expenditure during the year having been Rs: 25,276.

The old school building will now shortly be converted into a Sub. Judge's Court

R.S.

(20)

Brooks School

17

22

Madras High Court buildings.

The question of providing new buildings for the High Court of Madras has engaged the attention of Government for many years past, but nothing definite could be settled, owing principally to the difficulty of securing a suitable site for the purpose.

In 1875 the High Court brought to the notice of the Government the insufficient and unsatisfactory nature of the accommodation afforded to the Court and its establishment by the existing building, which was formerly occupied by the old Supreme Court, and after pointing out the various defects, and referring to the circumstance that at Calcutta, Bombay and Allahabad, the High Courts were about to be lodged in buildings — specially constructed for the purpose, the Registrar added that "the Chief Justice — and

"and judges trust that measures may be adopted
"by the Government to provide the High Court
"of Madras with a more suitable Court House."
A reference was then made to the Consulting
Architect to Government who endorsed all that
was said as to the unsuitableness of the present
buildings and recommended their abandonment,
and the construction of an entirely new Court
House on an open space of ground about two
miles inland known as the Pudupet Maidan.
The preparation of plans was ordered, but it
was subsequently found that the Pudupet
Maidan was required for Military purposes.

After some further correspondence, the
question remained in abeyance until 1884,
when it was again brought by the High Court
under the consideration of Government, with the
result that a Committee was appointed, with
the late Chief Justice as Chairman, to report
as to the site in Madras best suited for
the purpose. The High Court considered, and
the Government agreed with them, ~~that~~
the

the site must not be remote from the offices
of the Attorneys and Merchants, but that at
the same time it should be at such a distance
from the active operations of the port that
business may not be interrupted by the noise
attendant on those operations.
In October 1884, the Committee reported their
unanimous opinion that "of the open sites in
"the Town, the site on the esplanade north
"and north-west of the lighthouse would be
"the most convenient for the public, if there is
"no objection on the part of the Military
"authorities." Objections from a Military point
of view were raised to this site, and other
sites near Popham's Broadway, the Pudupet
Maidan, and the South Beach were considered,
but declared unsuitable either on the score of
expense or distance from business centres.
It was at one time contemplated to retain
the

(21)

High Courts Buildings

the present site and to make extensive alterations and additions to the existing buildings, but this design was, for several reasons, subsequently abandoned. After full consideration the Government came to the conclusion that it would be decidedly the best and cheapest course to dispose of the present site and buildings and to build elsewhere, and the site near the Lighthouse was found to be the only suitable one. This site was ultimately adopted with the concurrence of the Government of India, and plans and estimates are now under preparation for the erection of a new High Court in this position.

It is proposed to dispose of the present buildings by sale, and tenders for their purchase have been called for by public advertisement.

R.S.

16.

24

Court House for the Presidency Magistrates, Madras.

The need for a new court-house for the Presidency Magistrates in Black Town has long been admitted, but as no suitable site could be obtained the matter has hitherto been held in abeyance. A site was, however, selected during this year on the beach to the south of the Telegraph Office, and sanction was accorded to the erection thereof a court-house, a Police station and fire-engine room combined, at a cost of Rs. 49,830. The work was commenced at the close of the year.

R.S.

(22)

Presidency
Magistrates'
Courts

19

25

Police-Station etc. Madras.

The central Police office of the C division in Black Town has hitherto been very unsuitably accommodated, and the opportunity was taken of the erection of quarters for other public Departments in this locality to design a building which would afford accommodation for them all in an economical manner. A combined building for a police station, vaccination depôt, registration office, and fire engine shed was accordingly sanctioned at an estimated cost of Rs: 12,000, the Municipality contributing Rs: 3,618 for the space allotted to them. The work was commenced in February. It is situated at the junction of four roads near Patchiappa's Hall, and has

has been designed in keeping with its situation. It will, it is expected, be an ornament to the locality.

Police Station

K.S.

Cotacamund District Jail buildings.

The District jail at Cotacamund having been abolished, the buildings became available for other purposes. It was decided to appropriate the accommodation set free, so as to provide offices for the Inspector General of Jails, the Deputy Tahsildar, and the Registrar of Assurances, and quarters for the Apothecary attached to Army Head Quarters. The estimated cost of altering the buildings was Rs: 2,950, against which an Expenditure of Rs has been incurred.

K.S.

(24)

Dr. Jail Buildings
Ootacamund

21

27

Additions to the Madras College of Engineering

This work was continued during the year, but was somewhat delayed by the late arrival of iron girders from England, and the failure of cast iron columns made for the ground floor. One of these having failed, it was considered desirable to have the others carefully tested. Some of the columns were, after proper examination, rejected, and others placed in positions to carry lighter loads. Stone columns were substituted where necessary. All the columns and girders were fixed in position and the terracing of the floor was completed. The expenditure during the year was Rs: , and the total expenditure Rs: against the estimate of Rs: 90,066.

N.S.

(25)

College of Engineering

22

28

Military Churches at Wellington.

The Protestant church at Wellington, the structure of which had been previously completed was not ~~regularly~~ furnished till the present year, when an estimate of Rs: 3,762 was sanctioned for the purpose. Furniture was provided on a scale of for 450 sittings.

The Roman Catholic church at this station was completed during the year. It was designed to contain 200 sittings, and including furniture, the cost to Government was Rs: 33,576. The chaplain who carried out the work was at liberty to spend as much more on the edifice as he considered necessary. The ~~building~~ church was opened for divine service in April last. The chaplain desires to add a spire to the edifice from

from private funds, but the P. W. Offices are of opinion that it would not at present be safe to allow this, and the work has therefore been deferred.

Wellington Churches

R.S.

Vs.

Improvements to the Lawrence Asylum, Cotacamund

The need of separate and increased hospital accommodation in connection with the male branch of the Lawrence Asylum has frequently been brought forward by the Committee of the Institution. The necessity for improving the present system of drainage and water supply has also become very apparent, and the position of the latrines, at a distance from the main building, has been found to be inconvenient. Increased accommodation at the female branch is also desirable, should funds be available. The following estimates have been framed and submitted for the approval of Government:-

(i) Altering the existing hospital wards.	Rs: 2,000.
(ii) Constructing a separate cottage hospital for infectious cases.	" 14,000.
(iii) Constructing a latrine for the boys.	" 3,000.
(iv) Converting the present boys' latrine into a servants' latrine	" 1,200
(v) Constructing an open drain	" 500.
(vi) Water supply scheme.	" 12,350.

A

A plan has also been submitted showing how the Girls' School may be enlarged to accommodate twenty five more girls. The approximate cost is set down at Rs: 20,000.

On consideration of estimates submitted the Government remarked with respect to (i) & (ii) that a single hospital, which had been estimated to cost Rs: 18,000, would be preferable to a cottage for infectious cases, estimated at Rs: 14,000 plus an expenditure of Rs: 2,000 for repairs and alterations in the main building. They accordingly approved, with some modifications, the plan for a separate hospital, to be constructed from Asylum funds. Estimates (iii), (iv), (v) & (vi) were also approved, and referred, together with the proposal for a separate hospital, for the consideration of the new Committee which had recently been appointed. The proposal to enlarge the Girls' school was dropped, as it appears that the Institute had no funds available for the work.

If the Water Supply Scheme is finally approved, it is proposed to apply to the Government of India to allot funds as a special care for its execution from the Military Works Grant.

(27) ✓

Improvements - Lawrence Asylum

24

Presidency Public Works Workshops.

Mr. A. Joyce, Executive Engineer, continued to hold this charge in addition to the Stores and other minor charges.

The following is a comparative statement of the work done in the shops for the year under review as compared with the previous year.

	1887-88.			1886-87.			More than 1886-87.			Less than 1886-87.		
Works for the P. W. Departments	81,125.	2	5	76,972	8	"	4,152	10	5	"	"	"
Works for other Departments	47,507	7	3	42,392	7	4.	5,114	15	11	"	"	"
Works for private parties	4,779	11	5	6,246	9	10.	"	"	"	1466	14	5.
Total...	1,33,412	5	1	1,25,611	9	2.	9267 ~~7,800~~	10 ~~11~~	4 ~~11~~	1466	14	5.

It will be seen that while work for Government Departments has increased, less work has been undertaken on account of private persons.

The value of machinery in the shops on the 31st March 1887, was Rs: 1,05,825-14-0. At the close

(29) 1

Presidency Workshops

close of the present year the value stood at Rs: 1,08,135-5-9 after deducting the usual percentage on account of depreciation, and adding the receipts during the year, valued at Rs: 4955-2-1. The balance of materials on hand was duly verified by the Superintendent and was found to be Rs: 24843-4-4, being Rs: 4205 less than the value on the 31st March 1887. It was found necessary to raise the reserve limit of the Stock of materials from Rs: 5,000 to Rs: 20,000 so as to include the requisite supply of timber kept in stock. The statement of work shows that much has been done for various Government Departments, more particularly the P. W. Department, which could not have been executed so satisfactorily or economically, if at all, by the private agency available in this Presidency.

25

32

Presidency P. W. Stores.

Mr. A. Joyce, Executive Engineer, continued to hold charge of the Stores. Stock taking was carried out by him during the year, and the stock found to agree with the ledgers.

The opening balance of stock at the beginning of the year, after all adjustments had been made, stood at Rs: 2,07,438-13-6. The receipts during the year were

From London	Rs: 17,743-15-5.
" P. W. Divisions	" 1,091-2-9.
" Presidency P. W. Workshops	" 1,401-11-9.
Total	20,236-13-11

and the following were the issues:-

To P. W. Divisions	Rs: 4,922-12-4.
Presidency Workshop	" 27,509-4-2.
Military Department	" ~~69~~ 67 1-11.
Guaranteed Railways	" ~~14,029-12-1~~ 19-8-7
State Railways	14,029-12-1
Local Fund Boards	" 339-14-0.
Private Sales	" 1,561-0-7.
Dowlaishweram Workshops	" 3,212-5-5.
Madras Harbour Works	" 284-8-6.
Native States	" 50-13-0.
	Rs: 51,997-0-7.

51,979-8-0.

SAW There is some slight inaccuracy in these figures, perhaps due to copying. They should be verified before the paper is printed. [illegible] 31-VII-88

51979.8.0

Brought forward Rs: 51,997·0·7.

Difference by sale of surplus
Stores at reduced rates. -- " 184·1·3.

Total Rs: 52,181·1·10.

The year thus closed with a balance of Rs: 1,75,494·9·7, being Rs: 31,944 less than the opening balance.

There were 52 consignments of stores received from England, 1 from Rangoon, 2 from Coconada, and there were 34 shipments by steamer, viz:-

9 to Coconada.
8 to Masulipatam.
8 to Gopalpur.
2 to Rangoon and
7 to Vizagapatam.

=

Port Store-Keeper's Department

Fifty-two consignments of Railway Stores were received during the year for the Madras State Railways, of which 31 were from England, 9 from Rangoon and 12 from Calcutta.

All stores for the Cuddapah-Nellore Line were sent to Renigunta after the depôt at Tippagoontapolliem on the Buckingham Canal had

had been closed, and those for the Bellary Kistna Railway were sent by rail to Nundyal and by the Buckingham Canal to Seetanagaram after the depôt at Chebrole had been abandoned. Locomotive engines and rolling stock received by rail were removed by the Store Department from the Madras Salt Cotours station to the Canal basin, and despatched by boat to Seetanagaram with the iron bridges and plant received from England and other plant for the Bellary Kistna Line.

Considerable difficulty was experienced in loading the locomotive engines in boats at the Canal basin owing to there being no suitable appliances available. A ten-ton crane was sanctioned, but there was delay in setting it up, occasioned by want of funds. With the assistance however of a State Railway ~~the~~ locomotive foreman ~~of the Bellary Kistna and Cuddapah-Nellore State Railway~~, whose services were placed at the disposal of the Store-Keeper, and by judicious supervision,

supervision, all the rolling stock, girders and other stores were loaded without injury to the articles or to the persons engaged in loading them.

(28) & (30)
Rly. Store
Storekeeper of Machinery

—

Store-Keeper of Machinery.

The machinery in custody of the Store-Keeper was checked by him during the year and was found to correspond with the ledgers.

The Office of Store-Keeper of Machinery which was opened in February 1886 was abolished from the 1st March 1888, and the machinery was removed by the Departments concerned, the stamping machines by the Superintendent of Stamps, some machines and plant by the Gun Carriage Factory, and the machinery belonging to the Ordnance Department to Saint Thomas' Mount under orders of the Secretariat.

Should be Checked at Madras. The date is probably 1866-

The services of the clerk, fitter and lascars of this branch of the Stores Department were dispensed with on the 28th February 1888.

—

R.S.

26

Govt brick & tile manufactory, Madras.

34

These Operations were continued under the supervision of the Consulting Architect. During the year certain proposals were submitted by private firms for taking over these operations, but the terms offered were not such as could with due regard to Government interests be entertained.

26,740 bricks, 15,900 flooring & 11,116 roofing tiles were supplied for Govt works, & 10,68,051 bricks, 84,060 flooring and 79,773 roofing tiles for other than Govt works, chiefly the Madras municipality, Town Hall & Mysore Govt. The advance of 24½ per cent on Govt rates was charged to other than Govt departments. The gross profits of the year were Rs 5,005.

A sum of Rs 500 was sanctioned for making Experiments for producing decorative porcelain. The Experiments made were on the whole successful. A specimen panel was exhibited at the Fine Arts Exhibition held at Madras, & was much admired. A quantity of this material is being prepared

For

(30)

for the Exterior of the new Presidency Magistrate's court now under construction.

Govt Brick & Tile Factory

R/S

(35)

Govt Lithographic Press

The value of work turned out during the year by this Press was ~~Rs~~ 15,172-12-6 as against ~~Rs~~ 15,529 in the previous year; the working expenses being ~~Rs~~ 11,749-2-1, of which ~~Rs~~ 11,482-8-5 represent the cost of the permanent establishment. The bulk of the work was for the Irrigation branch of the P.W. Department, though the Press was utilised by many other departments of the Govt. No private work was undertaken.

R/S

Govt. Lithographic Press.

Inspection of Light-Houses.

In accordance with the general instructions of the Government of India, the following light-houses of this Presidency were inspected during the year by superior officers of the P. W. Department, their condition noted and requirements ordered to be supplied.

Calingapatam
Santopilly
Pakalapadi
Hope Island
Madras.
Seven Pagodas
Negapatam.
Pamban.
Tuticorin - Hare Island.
Muttum.
Cochin.
Calicut.
Tellicherry.
Cannanore.
Mangalore.

(34)

Light houses

Divisional Changes. — The Ramnad division, which at the end of the previous year, had been amalgamated with the Madura division, was again constituted a separate temporary division, & arrangements were being made to reform the Rushikulya division, which had been combined with the Ganjam division. The first Periyar Project-division was opened for work on the hills, and the four Tank divisions, which had been closed at the end of the previous year, were reformed on a reduced scale under the designation of Tank Restoration

Parties. A fifth Party also was opened in the North Arcot division

Service Books. The orders with respect to the due & correct maintenance of the service books of public servants appear to have been generally attended to by officers of the Public Works Dept

List of subjects for Admn Report
1889-88

A Opening remarks.

(1). Grants and expenditure SAW

(2.) Madras Harbour Works.

(3) Gopalpur Pier

May be omitted { ~~(4) Cruz Milagre Dam~~
~~(5) Mangalore Harbour~~

(6.) Improvements to the Port of Negapatam

(7) Negapatam drainage and water supply

(8) Bangalore Water supply Scheme

(9) Ootacamund water supply Project

(10) Artesian Boring in the Kortaliyar Valley

(11) Wynaad Roads

(12) Potinghy Ghat and Potinghy Korapuat Road

(13) Kullar - Gudalur Road

(14) Road from Cumbum to foot of Gudalur Peermade ghat.

(15) Widening of the Elephant Gatebridge, Madras.

omit ~~(16) Vaigai Bridge at Madura (and credit note system.)~~

Nothing ~~(17) Improvements at Ootacamund~~

Nothing for notice ~~(18) Improvements to the South Beach, Madras~~

(19) Tirumal Naicks Palace, Madura

(20.) Greeks Memorial School, Ootacamund

(21) New building for the Madras High Court.

(22) New Court House for the Presidency Magistrate, Madras.

(23) Combined Police Station, Vaccination Depot and Fire Engine Shed, Madras.

(24) Conversion of the District Jail buildings at Vizagapatam into public offices.

(25) Improvements to the Madras College of Engineering

(26) Roman Catholic Military Church at Wellington

(27) Improvements to the Vizagapatam Lawrence Asylum Buildings.

(28) Presidency P.W. Stores.

(29) Presidency P.W. Workshops

(30) Abolition of Office of Store Keeper of Machinery

(31) Government Brick and Tile Manufactory, Madras.

(32) ~~Government Brick Fields, Vizagapatam~~

(33) Government Lithographic Press.

(34) Inspection of Light Houses.

(35) Divisional Charges

(36) ~~Period of Tank Restoration Operations~~ - Irrigation

(37) ~~Opening of the Periyar Project Works~~ - Irrigation

(38) ~~Proposed compulsory retirement~~ of Officers at the age of 50 years.

(39) Service Books.

Included in A.

a. 5.7.88

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

Ganjam.—The expenditure on repairs amounted to Rs. 3,275 against an allotment of Rs. 3,200.

Godavari (East).—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 512.

. **Bellary.**—The apothecaries' quarters (double) at Bellary were finally completed and handed over for occupation The outlay amounted to Rs. 7,984 against a revised estimate of Rs. 7,856.

. The collar-makers and wheelers' shop at Bellary was finally completed during the year; estimate Rs. 5,663, outlay Rs. 5,663.

. The foundations of a new gun-shed for the Royal Artillery were partly excavated and materials collected; estimate Rs. 11,560, outlay Rs. 3,975.

. The foundations of the workshops for the arsenal at Bellary were excavated and concrete to a depth of 1¾ feet laid throughout. Materials were collected, and work was in good progress. The expenditure amounted to Rs. 6,888 against an allotment of Rs. 6,858. The estimate was under revision on account of certain alterations desired by the Military authorities.

. The under-mentioned minor new works were completed:

	Outlay. Rs.
(1) Fitting up new gate and raising compound wall of lock hospital ...	600
(2) Store-room for the forge S/1st Royal Artillery	147
(3) Cistern to receive drainage of European Infantry barracks ...	164
(4) Urinary for canteen G/2nd Royal Artillery	110
(5) Teakwood gratings for wash-house of the European Infantry barracks	110

. The total outlay under Repairs, Military, was Rs. 31,600. This sum was expended in the maintenance and repairs of the military buildings and roads, including the Barrackmaster'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 almost completed at a cost of Rs. 35,088 against an estimate of Rs. 35,850. The final completion was delayed owing to defects and omissions in the machinery sent out from England.

(2) Quarters for a barrack sergeant at Wellington were completed at an outlay of Rs. 7,100; estimate Rs. 7,348. A supplemental estimate of Rs. 346 was sanctioned and executed.

(3) A new magazine at Wellington was constructed; estimate Rs. 5,225, expenditure Rs. 4,867.

(4) Minor works; expenditure Rs. 3,902, allotment Rs. 3,758:
The principal works were—

Laying pipes from drinking-water cistern to station hospital; outlay Rs. 686.

Providing stands for 250 ammunition-boxes; outlay Rs. 435.

Making a flag-staff for General Officer Commanding, Southern District; outlay Rs. 268.

Alterations to Wellington barracks; outlay Rs. 909.

Constructing a masonry drain from barracks square to Engineer's office, Wellington, Rs. 475.

(5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. 4,567 and Rs. 23,919, respectively.

. **Coimbatore.**—The farrier sergeant's house at the Remount Depôt, Matigiri, was purchased for Rs. 1,510.

The following minor original works were completed during the year:

(1) Adding a linen room and verandah to the hospital at the Remount Depôt; estimate Rs. 216, outlay Rs. 162.
(2) Improvements to the hay-shed attached to the farm-stables at the Remount Depôt; estimate Rs. 1,260, outlay Rs. 997.
(3) Improvements to Mr. Maddock's quarters and out-houses at Matigiri; estimate Rs. 550, outlay Rs. 513.
(4) Constructing six water-troughs in the Remount Depôt; estimate Rs. 432, outlay Rs. 417.
(5) Rebuilding partition walls between the stall of horse-stables at the Remount Depôt; estimate Rs. 890, outlay Rs. 866.
(6) Constructing two tent lascars' huts at the Mettupálaiyam rest-house; estimate Rs. 335, outlay Rs. 332.

Repairs to military buildings at the Remount Depôt and to the rest-houses at Podanur and Mettupálaiyam were carried out at an outlay of Rs. 5,331.

West Coast.—During the year supplemental estimates, amounting to Rs. 46,340, in connection with the project for accommodating troops at Malapuram, were sanctioned for (1) a new third block of barracks with wash-house and latrine, (2) improvements to the canteen, and (3) constructing drains.

The walls of the barracks were raised 10 feet and arch-work commenced; the walls of the wash-house were raised 7 feet, and the latrine was being roofed. The main walls of the canteen were raised to full height, and roofing of verandah was in progress. Fifty feet of open drains and three covered drains were finished. The total grant of Rs. 17,000 for the year was utilised.

The following incomplete works of the previous years were completed:

(1) Improvements to the elephant shed at Malapuram; estimate Rs. 2,060, outlay Rs. 1,916.
(2) A store-room for the Madras Infantry regiment at Quilon; estimate Rs. 9,334, outlay Rs. 7,299.

Eighteen minor works were carried out during the year at a cost of Rs. 8,411, the principal ones being—

(1) constructing markers' and stop-butts of the European Infantry at West Hill, Calicut; estimate Rs. 320, outlay Rs. 273;
(2) deepening a well in the camping ground, Malapuram; estimate Rs. 410, outlay Rs. 308;
(3) improving the well below married quarters, West Hill, Calicut; estimate Rs. 376, outlay Rs. 362;
(4) improving the park sergeant's quarters, Cannanore; estimate Rs. 806, outlay Rs. 731.
(5) alterations and additions to the recreation-room and canteen block of British Infantry at Cannanore; estimate Rs. 1,183, outlay Rs. 1,185;
(6) reconstructing a well in the Madras Infantry lines, Mangalore; estimate Rs. 467, outlay Rs. 225.

The expenditure under Repairs, Military, amounted to Rs. 23,939 against an allotment of Rs. 28,369. The apparent short outlay was mainly due to the expenditure incurred on the cantonment roads at Quilon by the Chief Engineer, Travancore, viz., Rs. 3,937, not having been brought into account. There were also trifling savings on completed works.

Presidency.—Work on the conversion of the racket court in Fort St. George into a covered gymnasium was continued and nearly completed at a cost of Rs. 9,754.

The conversion of A. block family quarters, Fort St. George, into single men's barracks, &c., was also continued, and the work completed at a cost of Rs. 15,325 on an estimate of Rs. 15,877. The outlay during the year was Rs. 9,369.

The conversion of the sergeants' mess and adjacent godowns into a latrine and lavatory for the above barrack was in progress on an estimate of Rs. 3,820.

. Improvements to the water-supply of Fort St. George, which had been nearly completed in 1886-87, were carried out to completion.

. The conversion of staff sergeants' quarters into a school-house for the Native Infantry, Perambúr, was in progress, and Rs. 1,265 were spent in the year.

. Alterations and improvements to the drains at the Body Guard lines, Madras, were carried out at a cost of Rs. 1,286.

. A verandah was constructed to the officers' mess, Fort St. George, at a cost of Rs. 362, and servants' quarters were built to each of the Commissariat sub-conductors' quarters at the Ordnance lines, Madras, at an outlay of Rs. 1,048.

. The additions to the wash-houses at the parade barracks, Bangalore, were continued, and the work was completed at an outlay of Rs. 11,737 on an estimate of Rs. 12,500. The year's expenditure was Rs. 1,017.

. The construction of public buildings for a regiment of Native Infantry at the Arab lines was completed. The outlay was Rs. 21,903 on an estimate of Rs. 21,636. The year's expenditure was Rs. 6,715.

. The construction of station butchers' quarters was in progress on an estimate of Rs. 3,860. The work was almost completed at an outlay of Rs. 2,120.

. Twenty-five minor new works at the Presidency and twenty-three at Bangalore were completed at a cost of Rs. 12,173.

. One hundred and thirty-six repair works at the Presidency and 185 at Bangalore were carried out during the year. Payments were made to the Madras municipality of Rs. 15,287 on account of house, water and lighting taxes on Government military buildings outside Fort St. George, and of Rs. 6,000 on account of maintenance repairs of the esplanade and fort beach roads.

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

. The total outlay under Repairs, including barrackmaster's expenditure on petty repairs, compensation for quarters and payments made to the municipalities on account of taxes and maintenance grants was Rs. 94,521 at the Presidency and Rs. 66,483 at Bangalore.

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

(1) repairing the walls and floors of the military prison, Fort St. George; estimate Rs. 2,875, expenditure Rs. 2,665;
(2) general repairs to the Perambúr Native Infantry lines; estimate Rs. 5,570, expenditure Rs. 5,656;
(3) thorough repairs to the officers' mess-house, Fort St. George; estimate Rs. 4,945, expenditure Rs. 2,157;
(4) repairing ceilings of the armoury, Grand Arsenal, Fort St. George; estimate Rs. 3,100, expenditure Rs. 1,649;
(5) making thorough repairs to the Government granary of the Commissariat Department; estimate Rs. 8,800, expenditure Rs. 1,105;
(6) plastering with cement the exterior face of the enciente of Fort St. George from north to St. George's gate; estimate Rs. 2,970, expenditure Rs. 2,679;
(7) painting doors and windows of the parade barracks, Bangalore; estimate Rs. 7,280, expenditure Rs. 5,871;
(8) whitewashing the buildings in parade barracks; estimate Rs. 2,990, expenditure Rs. 2,830;
(9) whitewashing and wood-oiling all buildings at the Agaram cavalry barracks; estimate Rs. 5,090, expenditure Rs. 4,541.
(10) substituting Basel Mission tile-roof for ordinary tiled-roof to one single and one double row of stalls at the Agaram cavalry barracks; estimate Rs. 3,675, expenditure Rs. 4,371.
(11) whitewashing and wood-oiling the Agaram Royal Artillery barracks; estimate Rs. 3,710, expenditure Rs. 3,087.

. **Chingleput.**—A coffee shop, with kitchen, for the upper story barracks at St. Thomas' Mount, commenced in 1886-87, was completed at an outlay of Rs. 4,704 on an estimate of Rs. 6,690.

. Eleven cook-houses attached to the family quarters of the P/1st and Q/1st Royal Artillery, Mount, were taken down and rebuilt on an estimate of Rs. 2,970, and the work was completed at an outlay of Rs. 2,986.

. Alterations and improvements to the barrel racks at the reserve powder magazine, Mount, were commenced, and an expenditure of Rs. 882 was incurred. The work had to be deferred pending removal of the powder by the Military Department.

. Seven minor new works were completed at a cost of Rs. 1,601.

. Repairs to 15 buildings and several minor repairs, costing less than Rs. 500 each, were carried out at a total expenditure of Rs. 17,206, and the roads in the cantonments of Mount, Pallávaram, and Poonamallee, were maintained at an outlay of Rs. 3,814. The total expenditure under Repairs, including Barrackmaster's petty repairs, compensation for quarters, &c., was Rs. 28,316.

. The more important of the repairs were—

(1) repairing the roof of 11 barracks at Pallávaram; estimate Rs. 1,025, expenditure Rs. 979;
(2) repairing station hospital and its out-houses, Poonamallee; estimate Rs. 910, expenditure Rs. 818;
(3) repairing the sun-shades in the family quarters, Nos. 20 and 27, of Q/1st Royal Artillery, Mount; estimate Rs. 915, expenditure Rs. 873;
(4) repairing the sick lines stables at Mount; estimate Rs. 1,340, expenditure Rs. 1,257;
(5) repairing white and colour-washing west barracks and out-houses of 2nd Brigade, Royal Artillery, Mount; estimate Rs. 3,880, expenditure Rs. 2,279;
(6) repairing white and colour-washing, No. 66, female hospital, Mount; estimate Rs. 1,135, expenditure Rs. 754.

. **North Arcot.**—A sum of Rs. 2,438 was spent under Repairs, including the usual annual contribution of Rs. 1,000 to the municipality on account of maintenance of Vellore cantonment roads.

. **Trichinopoly.**—Construction of public buildings for a regiment of Native Infantry. The magazine and cells, which were incomplete at the close of the preceding year, were completed at an outlay of Rs. 2,495 against a grant of Rs. 2,340. The whole work was completed at a cost of Rs. 20,310 against an estimate of Rs. 20,155.

. Rupees 149 were spent in providing ammunition-boxes and Rs. 3,835 in maintaining cantonment roads and repairing military buildings.

II.—IMPERIAL—CIVIL WORKS.

Vizagapatam.—The post-office at Salúr was completed and handed over to the Postal Department. The total cost was Rs. 2,057 against an estimate of Rs. 2,000. The expenditure in the year was Rs. 1,746.

Repairs were executed to the post-offices at Vizagapatam and Narsapatam and to the telegraph office at Vizagapatam.

Godavari (East).—The telegraph office at Cocanada was repaired at a cost of Rs. 982 and the telegraph office at Rajahmundry at a cost of Rs. 219. A sum of Rs. 165 was spent on the post-office at Tuni.

Kistna (East).—A well in the compound of the post-office at Bezváda was completed during the year at a cost of Rs. 105.

The telegraph offices at Bezváda and Masulipatam were maintained in good order.

Kistna (West).—Iron-bars were fixed to the windows of the Duggirala post-office at a cost of Rs. 12.

Nellore.—The Sub-Postmaster's quarters, &c., at Gúdúr were completed, and the post-office at the same place was improved.

The post-offices at Kistnapatam and Gudur were repaired during the year.

Buckingham Canal.—The Covelong bar was opened on emergency in May 1887 on the requisition of the Salt Department without an allotment of funds, but the expenditure incurred was defrayed by a contribution from that department. The estimate amounted to Rs. 6,599, while the expenditure was Rs. 5,193.

Bellary.—The post-office at Anantapur was completed and handed over to the Postal Department. The expenditure amounted to Rs. 4,414 against an estimate of Rs. 4,051.

A compound wall was built to the post-office at Adóni at a cost of Rs. 113.

Coimbatore.—The late Munsif's court-house at Dharmapuri was converted into a post-office and Postmaster's quarters at an outlay of Rs. 636; estimate Rs. 652.

Repairs to three post-offices were carried out during the year at a cost of Rs. 102.

Nilgiris.—Improvements to the post-office at Kótagiri were carried out at a cost of Rs. 790.

Rupees 590 were spent on repairs, postal, and Rs. 117 on repairs, telegraph, buildings.

West Coast.—Certain vacant buildings in the fort at Tellicherry (late district jail) were converted into a post-office and Postmaster's quarters at an outlay of Rs. 2,613 against an estimate of Rs. 2,335.

The windows and doors of the post-office at Vayitri were iron-barred at a cost of Rs. 172.

Rupees 497 were spent in repairs to six postal buildings.

Presidency.—A few small works were undertaken, viz.:

(1) Adding a room to the Imperial post-office at Hunsur; outlay Rs. 172.
(2) Improvements to the Mysore post-office; outlay Rs. 850.

The following repairs were carried out:

(1) Whitewashing and repairing the telegraph office, Bangalore; expenditure Rs. 492.
(2) General repairs to the telegraph stores, Black Town, Madras; expenditure Rs. 639.
(3) Whitewashing the general post-office; Bangalore, expenditure Rs. 244.

North Arcot.—The post-office at Chittoor was enlarged at a cost of Rs. 353.

A sum of Rs. 291 was spent on repairs to the Postmaster's quarters in the Vellore fort and on repairs, &c., to the Stipend pay office to adapt it for the use of the combined post and telegraph office.

South Arcot.—Quarters for the Deputy Postmaster at Tindivanam were completed at an outlay of Rs. 579.

Rupees 167 were spent on repairs to the office of the Superintendent of Post-office, Cuddalore Division.

Trichinopoly.—Improvements to the combined post-office at Trichinopoly fort and to the post-office at Musiri were carried out at an outlay of Rs. 343.

Tanjore.—The addition of a bath-room and verandah to the post-office at Tanjore was completed at a cost of Rs. 260, and the extension of the post-office at Kumbakónam for the accommodation of the telegraph office was completed at a cost of Rs. 1,028, of which Rs. 874 were spent during the preceding year. The post-office at Tanjore was also repaired at an outlay of Rs. 110.

Negapatam.—Repairs to the post-offices at Patukota and Mimmesel were completed at a cost of Rs. 558.

. **Madura.**—Rupees 634 were spent in completing the new post-office at Butlagundu, on which Rs. 939 were laid out in the preceding year against an estimate of Rs. 1,340. A police station-house at Vedasandúr was converted into a post-office at an outlay of Rs. 75. The British post-office at Peermede and Postmaster's quarters at Periyakulam were repaired at a cost of Rs. 83.

. **Tinnevelly.**—The telegraph office at Tuticorin was repaired at a cost of Rs. 468, and the post-offices at Tenkarai, Satúr, Nagarcovil, Vasudevanallúr, and Srívaikuntham were repaired at an outlay of Rs. 826.

III.—PROVINCIAL—CIVIL BUILDINGS.

. **Ganjam.**—A building at Russelkonda was purchased for Rs. 1,000 as an office for the Deputy Collector.

Repairs to the following works were executed during the year:

(1) Collector's house at Chatrapur.
(2) Police magazine at Chatrapur.
(3) Subdivisional office at Russelkonda.
(4) Out-houses of Collector's bungalow at Chatrapur.
(5) Improvements to the treasury room at Chatrapur.

The total cost of repairs was Rs. 2,620.

Vizagapatam.—The bungalow and out-houses for the Assistant Superintendent of Police, Jeypore, was completed at a cost of Rs. 15,416 against a revised estimate of Rs. 15,350. The outlay during the year was Rs. 348. The building was finally handed over to the Police Department on 31st March 1888.

The following works were in progress:

(1) Additional accommodation to the Huzur treasury at Vizagapatam; estimate Rs. 9,360, including a supplementary estimate of Rs. 490, outlay Rs. 9,196; a second supplementary estimate of Rs. 535 was subsequently sanctioned.
(2) The police station at Koraput, an incomplete work of the previous year, was completed with the exception of the asphalte flooring to the two cells and some other trifling work. The total expenditure was Rs. 4,426 against an estimate of Rs. 3,895; the outlay for the year being Rs. 2,347 against an allotment of Rs. 2,100.
(3) Additions and alterations to the Deputy Tahsildar's office at Pálkondah and constructing a second-class police station-house in the compound. The work was completed, but accounts were not fully closed. The estimated cost of the work was Rs. 4,920, previous outlay Rs. 1,876. Outlay during the year under review Rs. 2,769.
(4) Constructing an hospital at Gunupuram; revised estimate Rs. 4,020, expenditure Rs. 2,040. This was expended on the wood-work. Work was not commenced, as the site was not settled until the end of the year.
(5) Constructing 34 reserve police huts at Koraput; estimate Rs. 14,800, expenditure Rs. 1,128.
(6) Completing the Sub-Magistrate's cutcherry with sub-jail at Potinghi. An iron roof was purchased for Rs. 3,316 against an allotment of Rs. 3,400.
(7) Second-class police station-house at Komarada; estimate Rs. 1,520. The work was completed at a cost of Rs. 1,506. Rs. 1,080 was expended during the year.
(8) Additions to the Deputy Tahsildar's office at Bimlipatam were completed at a cost of Rs. 1,125 against an estimate of Rs. 1,040.
(9) An iron safe for the treasury at Potinghi was made at a cost of Rs. 274.
(10) Alterations were carried out to the kitchens and latrines of the lunatic asylum at Waltair at a cost of Rs. 176 against an estimate of Rs. 192.

The lunatic asylum at Waltair was repaired at a cost of Rs. 1,525 and six minor works at a cost of Rs. 714.

Godavari (East).—Additions to Collector's cutcherry, Cocanada. This work was practically finished during the preceding year. The old buildings near the

Collector's cutcherry were dismantled and the sale-proceeds, which amounted to Rs. 1,272, were credited to the work. The total cost of the new buildings was Rs. 36,861 against an estimate of Rs. 31,870.

New court-house, Rajahmundry. Some furniture was purchased at a cost of Rs. 1,077. The total outlay on the main building and subsidiary works amounted to Rs. 41,938 against an estimate of Rs. 42,200.

The Sub-Magistrate's cutcherry, Pittapuram, was completed during the year, and formally handed over in December 1887. The total cost of the building was Rs. 10,656 against an estimate of Rs. 8,983.

The Sub-Magistrate's cutcherry at Tuni was completed and handed over to the Sub-Magistrate in December 1887. The cost of the building was Rs. 9,692 against an estimate of Rs. 9,436. Rupees 2,436 were expended during the year.

The outlay on the church at Cocanada to end of the year, against the Government grant-in-aid of Rs. 6,000, was Rs. 5,199.

Water-supply and improvements to the existing drainage of the central jail, Rajahmundry. The improvements were finished, with the exception of roof over the well which was in progress in the Dowlaishweram workshops. The expenditure to end of the year was Rs. 31,391 against an estimate of Rs. 33,030.

A bath-room for the Principal of the Provincial College, Rajahmundry, was completed at a cost of Rs. 427.

The main building of the dispensary at Bhádrachallam was completed, and the out-houses were almost finished. A well was dug to a depth of 33 feet. The outlay during the year was Rs. 2,470 against an estimate of Rs. 4,246.

Quarters for the hospital assistant, Public Works Department, at Dowlaishwearam, were completed at a cost of Rs. 610.

A Registrar's office, Cocanada, was completed during the year and handed over to the District Registrar. The cost of the building was Rs. 4,802 against Rs. 4,700.

The main building of the Executive Engineer's quarters, Dowlaishweram, was completed. The total expenditure amounted to Rs. 14,927 against an estimate of Rs. 12,500.

A well for the Superintending and Executive Engineer's houses was completed at a cost of Rs. 562 against the estimate of Rs. 500.

Major Brockman's house and land at Dowlaishweram were purchased for Rs. 2,500.

A portion of the roof of Trinity church at Rajahmundry was repaired, and minor repairs were carried out to other buildings.

Godavari (Central).—The Sub-Registrar's office at Razole was completed at a cost of Rs. 2,759 against an estimate of Rs. 2,750, and handed over. Rs. 554 were expended during the year.

The subdivision office at Gunnaram was repaired.

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

	Estimate. Rs.	Outlay. Rs.
(1) Sub-Registrar's office at Pentapad	2,710	2,694
(2) Cook-house to Executive Engineer's bungalow at Chettipet completed	500	536
(3) Constructing 1st-class taluk cutcherry at Tanuku, nearly completed. Revised estimate submitted	21,420	23,239
(4) Constructing 1st-class taluk cutcherry at Bhímavaram, nearly completed	22,650	24,307
(5) Constructing 1st-class taluk cutcherry at Narasapur; materials were collected and foundations dug, but the work was stopped pending sanction to a revised estimate	22,900	13,496
(6) Sub-Registrar's office at Tanuku, nearly completed ...	3,090	2,978
(7) Do. do. at Ellore; materials were collected and the wood-work was under preparation	2,540	1,858

Kistna (East).—Repairs to the Collector's residence at Masulipatam were in progress; estimate Rs. 14,305, expenditure Rs. 6,313. Out of an allotment of Rs. 7,000, only Rs. 4,404 were expended for wood-work, which, however, did not reach Masulipatam in time to be put up during the year. Work was also retarded owing to non-receipt of Portland cement which the Madras company could not supply till May 1888.

Two head constables, and ten constables' huts at Bezváda were commenced, and all masonry work was completed; tiles and bamboos were procured, and the roofs of two huts put on; estimate Rs. 4,538. The expenditure during the year was Rs. 2,003 against a grant of Rs. 2,000.

A treasury office in front of treasury room in the compound of the Gudiváda taluk cutcherry was completed; Rs. 1,149 were spent against an estimate of Rs. 1,300.

The following buildings were repaired during the year:

(1) Kistna Eastern Division office.
(2) Superintending Engineer's residence and office.
(3) Northern subdivision office.
(4) Bungalow on Colonel Orr's Hill at Bezváda.
(5) Dutch graves, tomb-stone of Dutch chief and French cemetery.

Kistna (West).—Rs. 1,000 were spent in collecting materials for the Sub-Registrar's office at Bápatla.

Materials to the extent of Rs. 406 were collected during the year for the Karampudi District Munsif's court-house. The allotment was given late in the year.

Nellore.—The following works were completed during the year:

(1) Improvements to the Sub-Collector's bungalow, Ongole.
(2) Horse-stable with coach-house at the Division office.

The district jail at Nellore was in progress; the grant of Rs. 2,948 was exceeded by Rs. 1,772 owing to trusses having been ordered in the workshops in anticipation of sanction to additional funds, which were, however, not made available.

Repairs to the following buildings were attended to—

(1) Police station-house at Naidupett;
(2) Assistant Superintendent's bungalow at Ongole;
(3) Hill bungalow at Ongole;
(4) Sub-Collector's bungalow at Ongole;
(5) Taluk cutcherry and subsidiary jail at Kandukúr;
(6) Collector's bungalow at Nellore;
(7) Bungalow at Kodavalur;
(8) Christ church, Nellore;
(9) Assistant Superintendent's office at Ongole..

Bellary.—The Collector's office at Anantapur was completed and handed over to the Revenue Department in January 1888. The accounts were not closed as some chicks required by the Collector had to be supplied. The expenditure on the work amounted to Rs. 63,427 against an estimate of Rs. 64,290.

. Improvements to the Collector's office at Bellary were in progress. The walls of the upper story in both wings were raised to full height and door-frames fixed. The work was much delayed on account of contractor's timber being detained at Guntakal junction railway station.

. The superstructure of the Collector's residence at Anantapur was raised to about 6 feet above basement, and door and window-frames were fixed. The expenditure amounted to Rs. 23,758 against an estimate of Rs. 28,190.

. The police huts at Vanavole were brought up to basement level and materials collected. The expenditure amounted to Rs. 600 against an estimate of Rs. 2,928. The work was for some time at a standstill owing to sickness amongst work-people who deserted the work.

. The under mentioned minor new works were carried out:

(1) Additional out houses for the Head Assistant Collector's bungalow; estimate Rs. 640, outlay Rs. 114.
(2) Re-roofing a portion of the store-shed at the engineer's yard; estimate Rs. 1,500, outlay Rs. 1,710.
(3) Horbury's patent privy for the combined Executive Engineer's and Superintending Engineer's office in the fort; estimate Rs. 185, outlay Rs. 179.

. The Munsif's court at Penukondah, the Roman-Catholic chapel, the Roman-Catholic cemetery, the garrison church, the military cemetery, the fort church, the taluk cutcherry at Penukondah and several other civil buildings were repaired during the year at a total cost of Rs. 6,960.

Eradication of vegetation and minor repairs to the temples at Hampi, Neelagunda and Heraihadgally were attended to; outlay Rs. 120.

. **Cuddapah.**—Of the sanctioned additions and alterations to the district jail at Cuddapah, three male wards were completed. The fourth was also completed except flooring and pointing walls built; and gratings and iron-doors put up to the fifth. The expenditure amounted to Rs. 23,903 against a revised estimate of Rs. 31,900.

. The Collector's office at Cuddapah was in progress. Interior arches were built and verandah arches commenced. All walls were built 14 feet high and girders were being raised. The expenditure amounted to Rs. 81,731 against an estimate of Rs. 1,43,741.

. The walls of the Registrar's office at Cuddapah were built and beams and joists put up for the roof. Roofing was commenced and doors and windows were ready. Estimate Rs. 5,192, outlay Rs. 3,899.

. Roofing to the taluk office at Váyalpád was completed, except the sub-jail. Wooden tower, fixing of doors and windows, painting and wood-oiling remained to complete. The expenditure amounted to Rs. 19,915 against an estimate of Rs. 25,700.

. Materials were being collected for the taluk office at Rajampett. The original allotment of Rs. 10,000 for this work had to be reduced to Rs. 2,700, owing to the prevalence of cholera, which prevented the commencement of the work.

The taluk office at Pulivendla was completed. The expenditure amounted to Rs. 23,610 against an estimate of Rs. 23,443.

The under-mentioned minor new works were carried out during the year:

	Estimate.	Outlay.
	Rs.	Rs.
(1) Sub-Registrar's office, Váyalpád	2,435	48
(2) Do. do. at Chitvél	2,040	259
(3) Improvements to Nandalúr Munsif's court	992	726

. **Kurnool.**—Work on the taluk office at Nandyál was in progress. The expenditure amounted to Rs. 24,637 against an estimate of Rs. 34,676.

. Nine constables' huts at Pattikonda were in progress. The outlay during the year amounted to Rs. 1,298 against an estimate of Rs. 2,903.

. **Nilgiris.**—Rupees 14,077 were spent on additions and improvements to Government House at Ootacamund; the principal items of expenditure being—

	Rs.
Furniture	4,671
General horticultural improvements	970
Providing lightning conductors	1,130
Additions to coach-house	4,217
Erecting screen walls to servants' quarters	1,081
Piping water-supply	1,785

. Good progress was made during the year on the repairs to the Mountstuart property, and an outlay of Rs. 9,139 was incurred. The total outlay was Rs. 16,646 against an estimate of Rs. 19,945.

. The combined Bench Magistrate's court at Kótagiri was completed during the year at a cost of Rs. 8,620 against an estimate of Rs. 8,060. Expenditure during the year Rs. 3,179.

. The new building for the Breeks' Memorial School, for which a revised estimate had to be submitted, was also completed and opened in March. Outlay for the year Rs. 25,276.

. A new police-station was built at Naduvattam. The expenditure during the year was Rs. 3,076 and the total outlay Rs. 4,031 against an estimate of Rs. 4,110.

. The Roman-Catholic church at Wellington was completed for the amount of the Government grant. The expenditure during the year was Rs. 16,863 and the total outlay was Rs. 23,863 against an estimate of Rs. 33,576.

. Other important works were--

(1) improving police-station and huts at Masingudi; estimate Rs. 3,020, outlay Rs. 2,833;
(2) repairing Curator's house in Government gardens, Ootacamund; estimate Rs. 2,805, outlay Rs. 2,823;
(3) alterations and improvements to the district jail at Ootacamund for the accommodation of public offices and for the apothecary attached to Army head-quarters; estimate Rs. 2,950, outlay Rs. 2,205;
(4) rupees 3,000 were spent in collecting materials for the conversion of the old Breeks' Memorial School into a Sub-Judge's court;
(5) the outlay on minor works during the year was Rs. 15,140.

The following are the principal works:

		Rs.
(1)	Providing lightning conductors to—	
	St. Stephen's church, Ootacamund	720
	Mountstuart buildings, Ootacamund	680
	Government Office, Stonehouses	801
	Council Chamber, Ootacamund	365
	St. Thomas' church, Ootacamund	537
(2)	Enclosing Wellington cemetery with a wire fence ...	660
(3)	Extending and improving police huts at Pykara ...	1,593
(4)	Do. do. at Kalhatti ...	1,300
(5)	Improving the roof of St. Stephen's church, Ootacamund ...	1,318
(6)	Supplying partitions and record-racks to offices on Mountstuart	1,117
(7)	Widening and raising the clock-turret on Stonehouse Hill	1,011
(8)	Renewing roof of Clerks' offices on Stonehouse Hill ...	1,456

. A sum of Rs. 23,841 was spent on repairs, the chief items being—

(1)	repairs to police lines at Ootacamund	3,161
(2)	repairs to Government House	10,991

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

(1) Constructing a District Forest office at Coimbatore; estimate Rs. 10,110, outlay Rs. 9,450.
(2) Constructing close prison at Coimbatore; estimate Rs. 19,582, expenditure Rs. 12,054; outlay during the year Rs. 337. The apparent saving was due to convict labor supplied by the Jail Department free of cost, estimated at Rs. 6,461 and to purchase of locks in England by the Inspector-General of Jails, Rs. 912.
(3) additions and alterations to the quarters of the Superintendent of the Central Jail at Salem; estimate Rs. 3,600; expenditure Rs. 3,727, outlay during the year Rs. 1,123.
(4) constructing quarters for the Deputy Jailor attached to the central jail at Salem; estimate Rs. 3,660, expenditure Rs. 3,691, outlay during the year Rs. 839.
(5) improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure Rs. 5,148, outlay during the year Rs. 674, exclusive of convict labor estimated at Rs. 740.

(6) rebuilding a portion of the District Munsif's court-house at Namkal; estimate Rs. 3,595, expenditure Rs. 3,734, outlay during the year Rs. 1,220.

(7) purchase of and improvements to a building at Tirupatúr for a residence for the Assistant Superintendent of Police; estimate Rs. 4,768, expenditure Rs. 4,768.

(8) constructing a Sub-Registrar's office at Hosur; estimate Rs. 2,970, expenditure Rs. 2,871, outlay during the year Rs. 275.

. A Sub-Registrar's office at Kollegál was in progress; estimate Rs. 2,630, outlay Rs. 900.

. Fifteen minor new works, on which a sum of Rs. 5,538 was spent, were in progress, of which ten were completed, viz.:

		Rs.
(1)	Supplying and fitting iron-safes to Coimbatore taluk treasury ...	410
(2)	Do. do. Palládam do. do. ...	870
(3)	Do. do. Kollegál do. do. ...	438
(4)	Do. do. Bhávani do. do. ...	435
(5)	Do. do. Karúr do. do. ...	869
(6)	Do. do. Sathyamangalam taluk treasury.	881
(7)	Do. do. Uttankarai do. do.	243
(8)	Do. do. Yercaud do. do.	226
(9)	Improvements to the new treasury room at Salem	90
(10)	Constructing a Sub-Registrar's office and compound wall at Tiruchengód; estimate Rs. 2,265, expenditure Rs. 2,288, outlay during the year Rs. 626.	

A sum of Rs. 5,966 was spent on repairs, the chief items being—

(1) repairing the women's ward of the central jail, Coimbatore, outlay Rs. 719.

(2) repairing the hospital and out-houses attached to the central jail, Coimbatore, outlay Rs. 2,543.

(3) repairing the out-houses attached to the Collector's bungalow at Salem, outlay Rs. 1,027.

(4) repairs to the taluk cutcherry at Tripatúr, Rs. 267.

(5) repairs to the Sub-Collector's bungalow at Erode, outlay Rs. 300.

. **West Coast.**—During the year supplemental estimates, amounting to Rs. 13,494, were sanctioned for completing the Law Courts at Calicut, bringing the total of the revised estimate to Rs. 1,20,200. The only items of work taken up were strengthening the vakils' chambers, constructing surplus drains and collecting materials for sun-shades. The aggregate expenditure up to date was Rs. 1,07,107.

. The new public offices at Pónani were completed, except the latrine, of which the superstructure to the level of 2 feet above the crown of arches was finished. Outlay during the year Rs. 14,599.

. The main buildings were made over to the respective departments.

. The residence for the Assistant Superintendent of Police at Malapuram begun in the previous year was completed, with the exception of punkhas and mats and deepening the well. The year's outlay was Rs. 5,378, bringing the total expenditure to Rs. 12,600 against an estimate of Rs. 13,660.

. The following works were completed:

(1) Improving the Government church, Cochin; estimate Rupees 20,680, outlay Rs. 20,177.

(2) Sub-Registrar's office at Chevayur; estimate Rupees 3,020, outlay Rs. 2,923.

(3) Sub-Registrar's office, Puthur; estimate Rs. 3,120, outlay Rs. 3,097.

(4) Sub-Registrar's office, Udipi; estimate Rs. 3,514, outlay Rs. 3,514.

(5) Sub-Registrar's office, Mannarghat; estimate Rupees 2,450, outlay Rs. 2,338.

(6) Additions to the old jail buildings in the fort at Tellicherry to fit them for use as Sub-Collector's cutcherry; estimate Rs. 2,710, outlay Rs. 2,518.

(7) Improvements to the Munsif's court at Perpanangadi; estimate Rs. 1,534, outlay Rs. 1,467.

(8) Supplemental work to the conversion of sweepers' quarters into patients' wards at the Lunatic Asylum, Calicut; outlay Rs. 4,135.

(9) Providing lightning conductors to the turret of the District Munsif's court, Tellicherry; estimate Rs. 360, outlay Rs. 341.

(10) Improving the clerks' room, District Munsif's court, Tellicherry; estimate Rs. 495, outlay Rs. 544.

(11) Improvements to Pálghat treasury room; estimate Rs. 247, outlay Rs. 245.

. The following works were in progress:

(1) Sub-Registrar's office at Koduvayur; estimate Rs. 2,940, outlay Rs. 1,471.

(2) A new Sea Customs-house at Cochin; estimate Rs. 17,940, outlay Rs. 5,491.

(3) Additions and improvements to the office of Superintendent of Police at Mangalore; estimate Rs. 10,383, outlay (including previous year's expenditure) Rs. 8,849.

. Furniture was designed by the Executive Engineer for the Malapuram church towards the close of the year, and a few items of it ordered from Madras, the rest being made at the Mission carpentry establishment locally. Rs. 383 were expended against an estimate of Rs. 600.

. A sum of Rs. 8,025 was spent on repairs, the following being the principal works:

	Rs.
(1) Division office, Calicut	510
(2) Lunatic asylum, Calicut	1,429
(3) Protestant church, West Hill barracks, Calicut	102
(4) Repairs to roof of the new Sea Customs-house, Calicut	400
(5) Repairs to the roof of St. John's church at Cannanore	1,617
(6) Rebuilding the turret of the District Munsif's court at Tellicherry.	308

. **Presidency.**—A racket court and swimming bath were constructed at Government House at a cost of Rs. 2,434 and Rs. 3,351, respectively.

. An upper story was built and improvements were carried out to the Aide-de-Camp's quarters at Government House, Madras, at a cost of Rs. 12,901.

. The construction of City reserve police lines at Pudupet, commenced in the previous year, was completed. The outlay during the year was Rs. 21,500. The total outlay was Rs. 26,961 against an estimate of Rs. 27,785.

. The construction of an upper story to the office of the Deputy Commissioner of Police was completed. The total expenditure was Rs. 9,859 against an estimate of Rs. 10,290.

. At the Medical College, Madras, the construction of a lecture theatre hall, estimate Rs. 7,175, and of a dissecting shed, estimate Rs. 6,005, were completed during the year. The expenditure was Rs. 7,620 and Rs. 6,459, respectively.

. At the Madras Penitentiary new roofs to the close prison cells, estimate Rs. 11,200; a new work-shed, estimate Rs. 3,200; and quarters for two hospital assistants, estimate Rs. 5,774, were completed during the year at a total outlay of Rs. 9,177, Rs. 2,892, and Rs. 5,201, respectively.

. The new gate to the St. Mary's cemetery, Madras, commenced in the previous year, was completed at a total cost of Rs. 6,136 on an estimate of Rs. 6,285. The year's expenditure was Rs. 2,834.

. Rupees 409 were spent in providing new seats for St. Matthias' church at Vepery.

. The ornamental ceilings of St. George's cathedral were completed at an outlay of Rs. 2,486 on an estimate of Rs. 2,711.

. A sum of Rs. 5,020 was spent on furniture for Government Houses at Madras, Guindy, and Ootacamund.

. Thirty-two minor new works were carried out at a cost of Rs. 7,975.

. Rupees 936 were paid on account of compensation for sittings provided for Roman-Catholic British soldiers in the cathedral at Madras during 1885-86 and Rs. 333 on account of compensation for sittings provided for British soldiers and their families in the Wesleyan chapel at Bangalore during 1886-87.

. One hundred and twenty-seven repair works at Madras and fifteen at Bangalore were carried out.

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

(1) Repairs to Banqueting Hall and Marine Villa with out-houses; estimate Rs. 5,700, outlay Rs. 5,710.

(2) Plastering with cement the outside of the Government Secretariat office, Fort St. George; estimate Rs. 11,070, outlay Rs. 7,362.

(3) Repairing tombs in St. Mary's cemetery; estimate Rs. 2,685, outlay Rs. 2,352.

(4) General repairs to the Civil Orphan Asylum buildings; estimate Rs. 16,540, outlay Rs. 7,227.

(5) General repairs to the Public Works Workshops and Stores; estimate Rs. 9,292, outlay Rs. 4,499.

(6) General repairs to the General Hospital, Madras; estimate Rs. 3,025, outlay Rs. 2,886.

. **Chingleput.**—A lightning conductor to the Agricultural College at Saidápet was fixed at a cost of Rs. 2,240. The whole expenditure on the college, the upper story of which (except tower) had been completed at the end of 1886-87, was Rs. 18,336.

. The construction of waiting and tiffin-rooms for the students of the Agricultural College was in progress on an estimate of Rs. 3,500, and Rs. 2,556 were spent during the year.

. Six minor new works were completed at a total cost of Rs. 2,988.

. The buildings at Government House, Guindy Park, and other buildings, churches, &c., were repaired at a total outlay of Rs. 15,586.

. **North Arcot.**—The Sub-Magistrate's cutcherry, with out-houses, at Arkónam commenced in 1886-87 was completed. The expenditure was Rs. 14,733 on an estimate of Rs. 14,245. The year's outlay was Rs. 6,547.

. Improvements to the Sub-Magistrate's office at Punganúr, also commenced in 1886-87, were completed. The expenditure was Rs. 3,799 on an estimate of Rs. 4,480; the saving was due to an existing sub-jail being utilised instead of building a new sub-jail provided for in the estimate.

. Four minor new works were in progress, of which three were completed. The expenditure was Rs. 2,671.

. Seven repair works were carried out at a cost of Rs. 1,916.

. **South Arcot.**—The Sub-Registrar's office at Villupuram, commenced in 1886-87, was completed at a cost of Rs. 2,760 on an estimate of Rs. 3,274.

. **Consulting Architect.**—The provision of an intermediate floor in the library of the Presidency College was commenced on an estimate of Rs. 7,651 and Rs. 827 were expended.

. The foundations for the columns to support the floor were laid and the columns were indented for through the India Office.

. Alterations and additions to the Ameer Mahal were carried out at a cost of Rs. 3,760.

. Rupees 5,196 were spent on twenty-nine minor works, the most important of which consisted in renewing the ornamental parapet on the north side of the Revenue Board Office with stone, providing a second boat made of wood for the floating latrine, and constructing a shed at the School of Arts.

. Rupees 15,150 were spent on annual and general repairs to buildings.

. **Trichinopoly.**—The construction of the district jail at Trichinopoly made satisfactory progress: block No. 3 A (36 cells) superstructure, arches and concrete to spandrils were completed; No. 3 B (22 cells) superstructure raised to an average of 3 feet; entrance gate superstructure raised to 3 feet; iron railings fixed; two gates fixed in position; and cut stone work on the side of gate in progress. The expenditure during the year was Rs. 18,938, and the total outlay Rs. 70,405 against a revised estimate of Rs. 85,244.

. Quarters for the European chief constable, central jail, Trichinopoly, were nearly completed; estimate Rs. 1,860, expenditure Rs. 1,695.

. A compound wall for the District Munsif's court at Kulitalai was completed at a cost of Rs. 1,455 against an estimate of Rs. 1,450.

. A compound wall and latrine for District Munsif's court at Ariyalur were commenced; estimate Rs. 1,230, expenditure Rs. 388.

. Rupees 465 were spent in completing certain repairs to the central jail, on which Rs. 2,745 were laid out in the preceding year.

. **Tanjore.**—The combined court-house for the District Munsifs of Kumbakónam and Valangiman was in progress. The lower story was completed, with the exception of plastering inside work, and the upper story was in rapid progress; estimate Rs. 34,342, expenditure Rs. 24,470.

. Improvements to the taluk cutcherry at Máyavaram were in progress, but the work was delayed from various causes; the expenditure was Rs. 4,907 from a grant of Rs. 7,000; estimate Rs. 11,680.

. The police station-house at Kumbakónam was extended at a cost of Rs. 2,748 against an estimate of Rs. 2,700.

. A building for the police office at Tanjore was purchased at a cost of Rs. 5,750.

. The construction of a latrine with five seats of Horbury's pattern, and of a compound wall to the police station-house at Tanjore was nearly completed; estimate Rs. 700, expenditure Rs. 552.

. Fixing iron gratings and doors, &c., to the office of the Superintendent, District Jail, Tanjore, was completed at a cost of Rs. 411.

. Rupees 3,862 were spent on repairs to the district court-house, taluk cutcherry at Shiyáli and sub-jail and latrine at Nannilam.

. **Negapatam.**—Alterations to the St. Joseph's College buildings at Negapatam. The buildings were purchased in the preceding year for Rs. 30,000, and estimates, amounting to Rs. 22,490, were sanctioned during the year under review for alterations to adapt them for the accommodation of public offices. The following work was completed:

(1) Improvements to the rooms allotted for the District Munsif.
(2) Do. do. for office of Assistant Superintendent of Police.
(3) Do. to the Executive Engineer's office.
(4) Do. to the Sub-Judge's court.
(5) Do. to the Sub-Magistrate's office.
(6) Do. to the Sub-Registrar's office.
(7) Do. to peons' sheds.

. The following alterations were in progress:

(1) Office for Assistant Commissioner, Salt and Abkári Revenue.
(2) Police station.
(3) Office for Head Assistant Collector.
(4) Gate and compound wall.
(5) General improvements to main building.

The expenditure during the year was Rs. 7,879 against a grant of Rs. 8,000, and the total expenditure was Rs. 37,879 against an estimate of Rs. 52,490.

. Rupees 4,061 were spent on the collection of materials for the District Munsif's court at Tiruvalúr.

. Improvements to the District Munsif's court at Mannárgudi were in progress; estimate Rs. 5,010, expenditure Rs. 3,959.

. The Government cemetery at Negapatam was extended at a cost of Rs. 1,317 against an estimate of Rs. 1,200.

. The conversion of the Executive Engineer's office at Kadambady into a dwelling house was completed, with the exception of fencing the compound; estimate Rs. 1,950, expenditure Rs. 1,741.

. **Madura.**—The following works were completed during the year:

(1) Sub-Magistrate's cutcherry at Madura; estimate Rs. 17,889, expenditure Rs. 4,492 in addition to Rs. 14,889 spent to the end of the preceding year.

(2) A second-class police station-house and one head and five constables' huts at Sáptúr; estimate Rs. 4,850, expenditure Rs. 2,691 in addition to Rs. 2,086 to the end of 1886-87.

(3) A second-class station-house and one head and five constables' huts at Ammyanáyakanúr; estimate Rs. 3,850, expenditure Rs. 3,630.

(4) Improving Deputy Tahsildar's office at Tirushuli; estimate Rs. 4,240, expenditure Rs. 4,136.

(5) Repairs to the taluk cutcherry at Dindigul; estimate Rs. 3,200, expenditure Rs. 3,319.

(6) Improving the district jail at Madura; estimate Rs. 2,820, expenditure Rs. 2865.

. The following buildings were in progress:

(1) Sub-Registrar's office at Tirumangalam; estimate Rs. 2,864, expenditure Rs. 2,405. Work completed with the exception of a small quantity of pointing, wood-oiling and flooring.

(2) A third-class police station-house and one head and five constables' huts at Veerapandy; estimate Rs. 2,930, expenditure Rs. 1,955. The huts were completed and materials for the station collected.

(3) A third-class station-house and one head and five constables' huts at Samayanallúr; estimate Rs. 2,690, expenditure Rs. 2,041. Walls of the station-house and huts nearly finished.

4)) District jail at Madura. Providing wire-netting to the roof ventilators of blocks and removing and renewing the existing palisades; estimate Rs. 4,482; expenditure Rs. 369.

(5) Subdivision officer's bungalow at Uthamapoliam was almost completed; estimate Rs. 1,500, expenditure Rs. 1,466.

. Rupees 1,059 were spent in maintaining the garden and improving the earth connection of the lightning conductor in Tirumal Naick's palace at Madura; in repairing Public Works office building and Sub-Collector's bungalow at Dindigul, store-shed at Periyakulam, taluk cutcherry at Meylur, Deputy Tahsildar's cutcherry and Sub-Registrar's office at Uthamapoliam; and in paying municipal tax for the Government buildings at Dindigul.

. **Tinnevelly.**—A new record-room and improvements to the district court-house at Kokarakulam were completed according to the original estimate; expenditure Rs. 16,893, including Rs. 12,183 spent up to 1886-87; revised estimate Rs. 21,030.

. The following minor works were completed during the year:

(1) Additions and alterations to the huzur treasury at Kokarakulam; expenditure Rs. 2,017.

(2) Sub-Registrar's office at Radapuram; expenditure Rs. 2,202, including Rs. 100 spent in the preceding year.

(3) Improving the Sub-Magistrate's office at Tuticorin; expenditure Rs. 1,536.

(4) Strong room for Tinnevelly taluk cutcherry; expenditure Rs. 290.

(5) Compound wall to the police station-house at Singikulam—expenditure Rs. 260.

A sum of Rs. 1,612 was spent in repairing the Executive Engineer's office at Palamcottah, in reconstructing strong room of the huzur treasury at Kokarakulam, and in repair of two other buildings.

IV.—PROVINCIAL—COMMUNICATIONS.

Godavari (East).—The navigation works at Dumagudem were maintained at a cost of Rs. 8,041 during the year. The refixing of the tail lock lower gate of Dumagudem was in progress. The trade is rapidly decreasing and only 445 boats passed through the canal against 650 in the previous year. The canal was closed from 15th March 1887 to 13th June 1887. Since the scouring sluices were ruined in 1886, the head of the channel that leads from above the anicut to the head lock and scouring sluice has been seriously eroded and in time may endanger the anicut; an attempt was being made at the end of the year to lessen this danger by throwing a stone bund across the fallen scouring sluices and to protect the margin of the channel on the anicut side with stone.

Bellary.—The following roads were retransferred to the charge of the Public Works Department:

(1) Road from Ramandrug to Sandur frontier on the Hospet side, 8 miles.
(2) Road from Ramandrug to the junction with the Sandur-Yettinhatti road, 13 miles.

A sum of Rs. 1,370 was spent on repairs to these roads against an estimate of Rs. 9,653.

Nilgiris.—The following works were completed:

(1) Overseer's rest-house at Cherambadi; total cost Rs. 6,387, outlay during the year Rs. 3,387.
(2) Constructing a wooden bridge at Burlyar on the Ootacamund-Mettupalayam road; total cost Rs. 6,226; outlay during the year Rs. 1,999.
(3) Constructing a new road on Mountstuart; total cost Rs. 10,025 against an estimate of Rs. 10,855, outlay during the year Rs. 1,398.
(4) Constructing eight cart-stands on the Ootacamund-Kullar road; total cost Rs. 4,721, outlay during the year Rs. 3,579.

Two toll-houses on the Kullar-Gudalur road were completed and a third nearly so at a cost of Rs. 1,235. The mile-stones between Ootacamund and Mettupalayam were renewed; the outlay for the year having been Rs. 1,094 against an estimate of Rs. 1,520.

Presidency.—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; and Rs. 3,381 and Rs. 1,062 for repairing the bridges over the Kuam and the Buckingham Canal.

South Arcot.—The piers of arches of the bridge over the Shatiatope anicut were raised to the anicut crest level. The manufacture of bricks was put in hand.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

Buckingham Canal.—An estimate of Rs. 17,496 for training the banks of the Adyár river was sanctioned, and the expenditure amounted to Rs. 1,934 against an allotment of Rs. 2,000. Some groynes were constructed and a diversion channel was cut. Both answered their purpose very well.

Kistna (East).—Repairs to the sea-dyke at Masulipatam were carried out.

Nilgiris.—The fencing of the Ootacamund lake, with the exception of the portion round the "Cedars," was completed; outlay Rs. 2,996.

Rs. 31,902 were spent on improving the water-supply of Ootacamund lying north of the lake.

Rs. 1,444 were expended on completing the Adam memorial fountain.

A raised foot-path from Charing Cross to the market at Ootacamund was completed at a cost of Rs. 1,107.

Under repairs a sum of Rs. 582 was spent on repairing the bund of Marlimund roservoir. The Ootacamund lake was kept clear of weeds at a cost of Rs. 384.

. **West Coast.**—The revetment for the protection of the town of Ponani undertaken in the previous year was completed with an expenditure of Rs. 3,963 against an estimate of Rs. 4,280.

. The sea terminations of the groynes, five in number, near the light-house at Cochin were raised to a uniform level of 6 feet above the high tide level for the protection of the light-house and its neighbourhood; estimate Rs. 4,610, outlay Rs. 4,022.

. **Presidency.**—Rupees 834 were spent on the conservancy of the river Kuam and Rs. 601 in closing the Kuam bar.

. **South Arcot.**—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was nearly finished in 1886-87, was completed, and the drainage sluice in it was almost finished. The outlay was Rs. 6,812 on an estimate of Rs. 8,550.

. **Madura.**—An expenditure of Rs. 787 was incurred on surveying and estimating the proposed system of roads, &c., at Kodaikanal.

VI.—LOCAL—INCORPORATED.

. **Ganjam.**—The Aska and Surada road was maintained at a cost of Rs. 413.

. **Godavari (East).**—The earth-work of the Kovur-Manjair junction canal was finished at a cost of Rs. 55,057 against an estimate of Rs. 52,345. The outlay during the year was Rs. 2,300.

. Five cattle-crossings on the canal were finished at a cost of Rs. 558.

. The cut-stone coping for the aqueduct over the Tooliabhaga drain and iron railings and stanchions were finished. The cost of the aqueduct was Rs. 46,216 against an estimate of Rs. 40,000. The excess was principally due to alterations in the original design.

The Tooliabhaga new cut was completed; total outlay Rs. 8,923 against an estimate of Rs. 9,200.

The total expenditure up to end of the year on the Kovur-Manjair junction canal works amounted to Rs. 1,43,090 against an estimate of Rs. 1,45,525. The outlay during the year was Rs. 3,850.

Kistna (East).—Rs. 4,344 were spent against a grant of Rs. 3,391 on the landing stage at Bezváda. The excess was due to the collection of more material than was necessary. This will be transferred to other works in due course. The work was completed, except the return wall, which was in progress.

: The ferry road at Bezváda was repaired and the Local Fund quarries made safe at a cost of Rs. 210.

. **Kistna (West).**—The construction of a culvert under the good water channel at Nizampatam, estimate Rs. 900, was nearly completed. The expenditure during the year amounted to Rs. 453.

The river and canal banks used as roads were maintained in proper order at a cost of Rs. 881.

. **Nellore.**—The Pennér anicut roadway was gravelled and materials to the extent of Rs. 122 were collected for the next year's repairs. The total expenditure was Rs. 567 against a grant of Rs. 600.

. **South Arcot.**—The roads along the Colercon bank, Veeranam tank-bank, and Perumaul tank-bank were kept in repair at an outlay of Rs. 1,599, 1,283 and 290.

. Sand was collected for the road along Khan Sahib's canal-bank at a cost of Rs. 349.

The earth-work was executed to give the full top width of 8 feet to the road passing over the Perumukal tank-bund at an outlay of Rs. 274.

. **Madura**.—At the commencement of the official year, the foundations of six of the 14 piers of the Vaigai bridge had been completed and the next four partially executed. Work progressed steadily during the ensuing months, and piers and both abutments were finished, with the exception of the 10th and 11th piers in the deep bed of the river. The cut-stone piers were commenced in June, and were nearly completed to springing level throughout. Arch-work was commenced in January; the first arch was completed by the 3rd March, and second keyed on the last day of the official year. Considerable difficulty was experienced in obtaining satisfactory bricks for arch-work. Rupees 1,20,759 were spent during the year against a grant of Rs. 1,20,000; Rs. 75,246 were expended up to the end of the preceding year, making the total outlay Rs. 1,96,005, the estimate being Rs. 3,21,460.

. Ten miles of the road from Cumbum to the foot of the Gudalur-Peermade ghât were repaired at an outlay of Rs. 1,623.

. The construction of a rough stone retaining wall to the lake at Kodaikanal was completed at a cost of Rs. 470, of which Rs. 406 were spent in the preceding year.

. **Tanjore**.—A new road around Elathoor, in lieu of the eroded portion of road No. 70, was completed at a cost of Rs. 1,690 against an estimate of Rs. 1,760, and 121 miles of roads on river-banks were maintained at a cost of Rs. 6,781.

. **Negapatam**.—Forty-five and a-half miles of roads on river-banks were maintained during the year at a cost of Rs. 3,939.

. **Trichinopoly**.—Twenty miles of road No. 20 from Sanganur to lower anicut were kept in order at an outlay of Rs. 987.

VII.—LOCAL—EXCLUDED.

Godavari (East).—A new fourth order dioptric light at the Hope Island light-house was set up at a cost of Rs. 1,097 against an estimate of Rs. 954.

Repairs to Vakalapudi and Hope Island light-houses were in progress at end of the year.

Kistna (East).—The salt creek from below the tidal lock at Masulipatam to the village of Gilakaladindi was cleared of silt at a cost of Rs. 1,736.

Buckingham Canal.—The construction of lines for lascars attached to the Armeghon light-house was completed at a cost of Rs. 1,889 against an estimate of Rs. 1,890. A new lightning conductor was fixed to the Armeghon light-house at a cost of Rs. 190.

The following repairs were carried out:

	Rs.
(1) Repairs to Superintendent's quarters and out-houses of Armeghon light-house	91
(2) Repairing damages to Armeghon light-house column	71
(3) Repairs to the Armeghon light-house	83
(4) Repairing thatched store-shed of the Armeghon light-house ...	30
(5) Repairs to Pulicat light-house	236
(6) Do. to Superintendent's quarters of Pulicat light-house ...	239

. **West Coast**.—The light-houses at Calicut and Cannanore were provided with lightning conductors at a cost of Rs. 255 and of Rs. 218, respectively, and they, as well as those at Tellicherry and Mangalore, were repaired and painted at an aggregate cost of Rs. 935.

. Materials for a wire-fencing round the light-house at Calicut were ordered, and the thatched roof of the watchman's shed improved with tiles at a cost of Rs. 319.

. Rs. 52 were spent in repairing the cranes at Vypeen and Cochin.

. **Presidency.**—An estimate of Rs. 1,020 was sanctioned for repairs to the light-house, Madras; but the grant was made too late in the year to admit of any work being done.

. **Chingleput.**—The light-house at the Seven Pagodas was in progress on an estimate of Rs. 8,165; the work consists of—

(1) Constructing a stone platform for a fourth order light;
(2) Construction of Superintendent's quarters;
(3) Do. of lascars' lines;
(4) Do. of two sentry boxes;

the expenditure to the end of the year was Rs. 6,253, and the work was nearly completed.

. **Tinnevelly.**—A new earth-plate to the lightning conductor attached to the light-house at Hare Island was completed at a cost of Rs. 42, and an outlay of Rs. 29 was also incurred in testing the lightning conductor.

VIII.—ESTATE WORKS.

. **Gundamanaikanur Zemindari.**—Estimates, amounting to Rs. 9,734, were sanctioned and funds allotted, and the works were put in hand in July, but several of them were stopped at the request of the Collector. The total expenditure during the year was Rs. 4,566.

. **Cunnivady Zemindari.**—All the works were completed except two, and Rs. 3,192 were spent during the year.

. **Ramnad Zemindari**—*Civil Buildings.*—The original grants were Rs. 11,000 under ain (revenue proper), 23,000 under devastanam (temple endowment funds), and 6,000 under chuttram (charitable endowment funds); the revised grants were Rs. 14,154, 21,346 and 14,260, respectively; while the expenditure was Rs. 7,418, 9,941 and 9,722, respectively; showing a total short outlay of Rs. 23,679 with reference to the total revised grant.

. The construction of an office for the Superintendent of devastanam was in progress; the total expenditure was Rs. 3,847 against an estimate of Rs. 5,920. The work was not completed owing to some misunderstanding with contractors and to difficulty in carting materials to site.

. An outlay of Rs. 429 was incurred in constructing a granary at Rajasingamangalam; the estimate being Rs. 3,070. The work was started in January 1888, but could not be proceeded with vigorously owing to scarcity of labor.

. The following minor works were completed:

(1) Constructing a hall in front of the residence building of the fourth widow's quarters in the palace at Ramnad; estimate Rs. 1,370, expenditure Rs. 1,367.
(2) Constructing a granary at Zenathy; estimate Rs. 1,230, outlay Rs. 1,274.
(3) Improving estate building at Kamuthy; estimate Rs. 600, outlay Rs. 593.
(4) Constructing an enclosure wall with gate to the west block of Mallanjivar's chuttram at Tirushuli; estimate Rs. 223, expenditure Rs. 206.
(5) Reconstructing the Pilliarcovil at Kamuthy; estimate Rs. 297, outlay Rs. 272.

. The following works were in progress:

(1) Constructing a granary at Maranthai; estimate Rs. 1,815.
(2) Constructing divisional cutcherry at Sayalgudy; estimate Rs. 440.
(3) Constructing jamabandi cutcherry or granary at Kamuthy; estimate Rs. 1,725.
(4) Improving the taluk cutcherry, Salagramam; estimate Rs. 900.
(5) Constructing stable and cook-room near travellers' bungalow at Kamuthy; estimate Rs. 47.
(6) Reconstructing elephant shed at Tirupallani; estimate Rs. 265.

Out of 58 works in progress under different heads under Repairs, 28 were fully completed.

. *Agricultural Works.*—The original grants were Rs. 79,000 under ain, 17,000 under devastanam, and 4,000 under chuttram. The revised grants were Rs. 59,366, 9,712 and 1,427; while the expenditure amounted to Rs. 43,626, 4,874 and 1,142, respectively, showing a total short outlay of Rs. 10,863 with reference to the total revised grant.

The following works were in progress:

(1) Improvements to Ramnad large tank; total expenditure Rs. 13,956, estimate Rs. 20,040.

(2) Improvements to Rajasingamangalam tank; total expenditure Rs. 12,668, estimate Rs. 18,650.

(3) Improvements to the Kalari tank; total expenditure Rs. 5,321, estimate Rs. 17,610.

(4) Improvements to the Anaikulam tank; total expenditure Rs. 6,367, estimate Rs. 14,085.

(5) Raising and extending the Gundar dam; expenditure Rs. 775, estimate Rs. 13,600. The work was commenced late in the official year.

. Most of the requisitions of the estate authorities under the head Minor Works were complied with. Out of 131 works in progress, 44 were completed.

ENCLOSURE
2 AUG 88
1408
EXAMINER, P. W. ACCOUNTS

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7875/88

No 603

EXAMINER
No 1408
2 AUG 1888
ENCLOSURES 1
P. W. ACCOUNTS.

No. 2886C

Government of Madras.

PUBLIC WORKS DEPARTMENT,

~~Ootacamund~~ Madras, 1st August 1888.

OFFICE NOTE.

From W

To C

Proof of Part II of Administration Report General Branch for 1887-88.

For favour of Check with respect to figures.

31.7-88.
For W.

To W. No. 2031 of 8. 8-88
Enc: 1

Herewith proof duly checked.

C.

Enc.

PS 8/8

P. W. Coll. 7875

Encl-

Recd 8-8-88.

No 963.

5th Circle

Administration Report for Buildings and Roads for 1887-88-

General Remarks-

Colonel W. B. Burton R.E proceeded on furlough to Europe and left the Circle on Saturday the 14th May. Colonel A. M. Tulloch R.E assumed charge from the forenoon of Monday the 16th Idem and has since held charge of the Circle.

Three Apprentice Overseers were posted to the Presidency Division for receiving their years Course of practical training; having completed this Course left the Division in July 1887.

The Condition of the Ulsoor Tank at Bangalore remains the same as in last year.

Copy

The improvements contemplated by the Municipality of the Civil and Military

Military Station Bangalore to the Ulsoor Tank for removing silt and deepening the shallow parts of the bed of the Tank could not be carried out owing to water in the Tank being 5'- 5 2/8 below Body. This time last year it was 3 feet 2/8 inches below Body.

The raising of the Caringulah by one foot was Completed in the beginning of the year by the Municipality. The supply of water now in tank will not probably last all the year, unless supplemented by Copious Rains.

The improvements by way of deepening and adding extra storage Capacity to the Upper Ulsoor Tank and Lower Miller's tank undertaken last year by the Municipality were Completed during the year.

No accidents of any importance occurred on works during the year in any Division, except Presidency where a Bricklayer employed on the construction of Public Buildings for a Native Infantry Regiment at Bangalore was killed on the

the 13th June 1889 by the falling of heavy Slab stones from the roof, while he was engaged on the scaffolding below.

There have been changes in the price of labor and materials at Bangalore and Madras with a tendency to increase which has necessitated a revision of existing rates.

In North Arcot there were no changes in rates but difficulty was experienced in the latter part of the year in getting Coolies to work owning to the prevalence of Cholera.

In Chingleput Division there was no marked change in the rates during the year.

In South Arcot there was no appreciable variations in rates. Table moulded bricks were introduced and the rate for brick-work was slightly raised in Consequence.

Great difficulty was experienced in South Arcot in getting a sufficiency of labour especially at Pelandorai. This difficulty was not surmounted properly although

although rates were largely raised.

Service Books of all employés in the Presidency Division have been carefully written up to date and the orders of Government on the due and correct maintenance of these records have been carefully attended to.

In the North Arcot Division these books are maintained for all the subordinates and the orders with respect to their correct maintenance are carefully attended to.

In Chingleput Division these books have been written up and kept complete with the exception of certain cases which are being attended to.

In South Arcot Division these are maintained and kept complete with the exceptions of a few Cases in which steps are being taken to make them Complete.

The rain fall of the year in Bangalore was less than the previous year. Up to end of December 1897 the rain

fall

In 1852 the rain fall at Bangalore was 55.1.

fall of the Calendar year was 31.33 inches, which is less than the fall of the previous year by nearly 10 inches.

The highest rain fall occurred in 1874 when 45.605 inches was recorded at Ulsoor Tank. The heaviest fall in 24 hours during the year under report was 3.570 inches which fell on 9th October 1897, the total fall of the month being 8.590 inches.

From January to 31st March 1898 the rain fall amounted to .300 inches.

The average rain fall throughout the North Arcot Division during the year was 52.46 against 46.31 in the previous year. The rains set in very early in the year as it did in the previous year but the fall during the South-west monsoon was less than that of North east.

In Chingleput Division the rain fall in the latter part of last Calendar year was unusually heavy and the progress of works was in Consequence Considerably hampered.

In

In South Arcot Division season was on the whole a good one. The rivers and tanks have received their due supply. In Chidambaram Taluq there was late demand for water under the Lower Coleroon Anicut and Chatiatope Anicut systems, and water was let down the Channels till the close of the Official year.

The rain-fall during the year on an average of 10 stations, where it was gauged was 65.05 inches against 43.30 inches in 1886-87.

The following is a statement of the Grant and expenditure of the year—

Division	Service and Departmental Heads	Budget grant	Final grants at the end of the year	Outlay	Expenditure compared with modifications: More	Less
Provincial Division	**Imperial Military**					
	Original works	55206	56930	47760	"	9170
	Repairs	150000	178622	161005	"	17617
	Imperial other Services.					
	Original works { Postal	395	395	850	"	355
	Original works { Telegraphs	30	1008	198		
	Repairs { Postal	500	500	342	"	158
	Repairs { Telegraphs	704	1024	1131	107	"
Provincial Division	**Provincial**					
	Original works					
	Civil Buildings	7490	80495	86,955	6460	"
	Communications	10000	10000	9606	"	494
	Miscellaneous Public Improvements	"	"	1350	1350	"
	Repairs					
	Civil Buildings	60000	59650	69313	9663	"
	Communications	12500	13500	13653	153	"
	Miscellaneous Public Improvements	3000	1600	1894	394	"
	Tools and Plant	3500	1000	408	"	592
Reserved Division	Excluded Local Funds	1270	1270	"	"	1270
Chengalpat Division	**Imperial Military**					
	Original works	2970	13368	11543	"	1825
	Repairs	28000	28000	28316	316	"
	Provincial					
	Original works					
	Civil Buildings	6150	11424	8223	"	3201
	Miscellaneous Public Improvements	5386	5386	2668	"	2718
	Repairs					
	Civil Buildings	10,000	15000	15586	586	"
	Excluded Local Funds.					
	Original works					
	Civil Buildings	3984	3984	2072	"	1912

Division	Service & Departmental Heads	Budget grant	Final grant at the end of year	Outlay	Expenditures compared with modification: More	Less
North Arcot Division	Imperial Military					
	Original Works	3583	263	228	"	35
	Repairs	3000	2500	2437	"	63
	Imperial Other Services					
	Postal					
	Original Works	"	"	"	"	"
	Repairs	300	300	291	"	9
	Telegraphs					
	Original Works	350	350	353	3	"
	Repairs	"	"	"	"	"
	Provincial					
	Original Works					
	Civil Buildings	6245	10464	10607	143	"
	Repairs					
	Civil Buildings	2000	1993	1931	"	62
South Arcot Division	Imperial Military					
	Repairs	174	174	173	"	1
	Imperial Other Services					
	Postal					
	Original Works	"	630	579	"	51
	Repairs	"	200	167	"	33
	Provincial					
	Original Works					
	Civil Buildings	3546	3546	2694	"	852
	Repairs					
	Civil Buildings	800	1200	943	"	257
	Communications Repairs	"	2000	"	"	2000
	Miscellaneous Public Improvements					
	Original Works	2528	4580	790	"	3790
	Tools and Plant	2000	500	3970	3470	"
	Incorporated Local Funds under Madras Act V of 1884.					
	Repairs					
	Communications	6640	4040	3869	"	171

In the Presidency Division the short outlay under Imperial Military Original works is owing to Bills received on 31st March not having been paid with reference to G.O. No. 732 Tr of 3d March 1888 which prohibited rushing expenditure at end of the year and also to an allotment of Rs 1000 given on the 14 March by the General Officer Commanding Eastern District for Wheat Godown at the Government Bakery Madras not having been utilized; it having been given too late in the year. Likewise under Repairs Military the short outlay is ascribed to Bills received on 31st March not having been paid, with reference to the G.O. above alluded to and also to its having been found impossible to utilize a grant of Rupees 9139 given on the 20 February 1888 rather late in the year. The unexpended balance of Rs 353 under Original Works Postal and Telegraphs will be adjusted in the supplemental accounts

accounts for March as the accounts of the work were received too late from Mysore for adjustment in the regular Accounts.

The expenditure of Rs 6460 in excess of grant under Provincial Civil Buildings Original works is due to payments having been made for Improvements to Aid-de-Camp's Bungalow and for Racquet Court at Government House Madras and for the City Reserve Police Lines Pudupet in excess of grants for those works, which were insufficient.

Rupees 1350 were spent on emergency without grant under Provincial Miscellaneous Public Improvements Original Works on new earthen Cross bund in the Cooum.

The expenditure of Rs 9763- in excess of the Grant under Provincial Civil Buildings Repairs is due to grant for Repairs to Civil Orphan Asylum Buildings not having been given as promised.

Under

In

Under Repairs Excluded Local Funds the grant of Rs 1240 given for Madras Light House Repairs could not be utilized as it was given too late in the year 21st March.

In the Chenglepet Division Rupees 1825 remained unspent from the grant for Military Original works as it was not possible to carry out the alterations to the racks in the Reserve Powder Magazine at the Mount owing to the powder not having been removed by the Ordnance Department to admit of the work being put in hand

The unspent balance from the Grant for Provincial Civil Buildings Original works consists chiefly of the balance of Grant for Improvements to the Laboratory at the Agricultural College Pudupet as the work had to be unnecessarily stopped owing to further improvements to the building, proposed by the Educational Department. The

money

money was surrendered by the Executive Engineer on 28 March too late in the year to be utilized elsewhere.

From the Grant for the Artesian boring under Provincial Miscellaneous Public Improvements Rs 2718 Could not be spent on account of slow work due evidently to the Contractor having much to contend with in the boring operation.

From the Grant for Light House at Seven Pagodas under Excluded Local Fund Miscellaneous Public Improvements the unspent balance is Rs 1912. This is to be attributed to work having had to be stopped on account of objection made by the Collector (but subsequently withdrawn by him) to the site selected for the Superintendent's quarters. Frequent references also have had to be made to the Marine Department for information as to their requirements in regard to the building, this in a measure conduced to the slow progress of the work.

The

whole stock of the P. W. stores was checked by him during the year and found to agree with the Ledgers.

The year opened with a balance of stock in store of Rs 207438-13-6 and closed with a balance on 31st March 1886 of Rs 175494-9-7. as per statement subjoined

The closing balance of stock shewn in the Administration Report for 1886.87 was Rs 211178-13.11 but this was subsequently altered by adjustment in the Supplemental accounts for March to Rs 207438-13.6

Copy

The opening balance on 1st April 1887 was therefore . . . . . Rs 207438-13.6.

The receipts during the year were

From London	Rs.	17743-15-5	
Do - P.W. Divisions		1091-2-9.	
Do - Presy. Workshops		1401-11-9.	
			20236-13-11

Total Receipts including opening balance. 227675-11-5

The issues during the year were

To —

		227675 — 11 — 5
To, P. W. Divisions	Rs. 4922 — 12 — 4	
Presidency Workshop	27509 — 4 — 2	
Military Department	67 — 1 — 11	
Guaranteed Railways	19 — 8 — 7	
State Railways	14029 — 12 — 1	
Local Fund Boards	339 — 14 — 0	
Private sales	1561 — 0 — 7	
Dowlaishwarum Workshops	3212 — 5 — 5	
Madras Harbour Works	284 — 8 — 6	
Native States	50 — 13 — 0	
	51997 — 0 — 7	
Difference by sale of surplus stores at reduced rates	184 — 1 — 3	52181 — 1 — 10
Balance in stock on 31st March 1888		Rs 175494 — 9 — 7

being Rs 31944 less than the opening balance.

There were 52 Consignments of stores received from England, 1 from Rangoon — 2 from Cocanada and there were 34 shipments by Steamers Viz

9 to Cocanada, 8 to Masulipatam

8 to Gopaulpore, 2 to Rangoon —

and 7 to Vizagapatam.

The whole of the Machinery in custody of the Storekeeper of Machinery was checked by him during the year and found

found in every respect to correspond with the Ledgers.

The Office of Storekeeper of Machinery which was opened under G.O. No. 171 P.D. dated 11th February 1865 was abolished from 1st March 1888 under G.O. No. 2 of 5 January 1888 and the Machinery was removed by the Department concerned. the stamping Machines by the Superintendent of Stamps, some Machines and Plant by the Gun Carriage Factory and the Machinery belonging to the Ordnance Department was removed under orders from the Inspector-General to St. Thomas Mount.

The services of the Clerk Fitter and Lascars of this branch of the Stores Department were dispensed with on the 28 February 1888.

Port storekeepers Department —

Fifty two Consignments of Railway stores were received during the year for the Madras State Railways 31 from England, 9 from Rangoon and

12

12 From Calcutta

All stores for the Cuddapah Nellore Line were sent to Pennguntla after the receipt at Tippagoontapollium on the Buckingham Canal was closed, and those for Bellary, Kistna were sent by rail to Arundyah and by Buckingham Canal to Seetanagaram where the receipt at Chebrole was abandoned. Good work was done during the year. Locomotive Engines and Rolling stock received by Rail were removed from the Gall-Cotaw station to the Canal basin and despatched by boats to Seetanagaram with the Iron bridges and plant received from England and other places for the Bellary Kistna Line. The 10 Jaw Crane sanctioned for the Canal basin could not be set up for want of funds and the works of loading in boats, the Locomotive Engines, was done at considerable risk. Mr Cardew the Locomotive and Carriage Superintendent of the Bellary - Kistna & Cuddapah Nellore State Railways placed the services of his Locomotive Foreman at the disposal of the General Superintendent to assist in loading the Engines in boats. Under Judicious Supervision all the Rolling stock Girders and other stores were loaded without any injury to the articles or to the persons engaged in loading them.

P. W. Works. — Shops — Division

A report on the Administrative accounts of the Works Shops as to be submitted to Government by the Examiner —

Work to a much greater extent than in the preceding year was executed in the Workshops, this year for the P. Wand other Departments of Government as shown by the subjoined Statement, which also shows a falling off in the amount of work undertaken for private parties.

	1895-96	1896-97	More than 1896-97	Less than 1896-97
Works for the Public Works Department	31125 2 5	76972 8 .	41521 0 5	" " .
Works for other Departments	47507 7 3	42392 7 4	5114 15 11	" " .
Works for private parties	4779 11 6	6246 9 10	" " .	1466 14 5
Total	133412 5 1	125611 9 2	7800 11 11	1466 14 5

The

The charges for Establishments for the two years being.

Rupees. 11746 — 7 — 4 in 1886. 87.

" 13718 — 12 — 1 — in 1887. 88.

or Rupees 1972 — 4 — 9 — more in the latter year.

Additions were made to the Stocks during the year to the value of Rs 4955 — 2 — 1. The Saw Mills got from England in 1886. 87 was fitted up during the year and is working from November 1887. The value of Machinery in the Shops on the 31st March 1887 was Rs 105825 — 14 — and on the 31st March 1888 Rs 108135 — 5 — 9. as shewn below.

Balance on 31st March 1887	Rs	105825 — 14 —
Deduct Expenditure at 2½ %	Rs	2645 — 10 — 4.
		103180 — 3. 5
Add additions during the year as above		4955 — 2 — 1
Total Rupees —		108135 — 5 — 9.

The balance of materials in hands has been verified. The value of materials in hands at the end of March 1888 was —

Rs

all officers of the P. W. D. and P. this Department and Private parties —

A List of works suitable for famine relief is in preparation under instructions received from the Chief Engineer for Irrigation to whom the List will be submitted.

Herbert Gibbons
Colt. R.E.
Superintending Engineer
5th Circle —

Bangalore.
6th June 1888 —

P.W.C. No. 5386

From
Colonel H. M. Vibart R.E.
Supry Engr. 5th

To
The Chief Engineer
P. W. Deptt.

Dated 8th } June 1888
Read 8th }

No. 963.

Administration
Report for Buildings
& Roads for 1887-88.

—

Forwards the —

Compile
[illegible]
8.6.88

Estimate for the Conservancy Establishment of the Senate House Latrine for 1887-88

Revised Standard Design and Schedule of quantities for Tahsildars Cutcherries

Plan and Estimate for placing the Electric clock on the porch of the Senate House.

Estimates for maintaining the Chepâk Park, South Beach Marina, and Conservancy Establishment for the Floating Latrine at Chepâk

Plan and Estimate for a thatched roof shed at the School of arts

Plan & Estimate for additions to the Ameer Mahal

Plan and Estimate for constructing an intermediate floor in the Library Presidency College.

Revised Standard design and Schedule of quantities for Deputy Tahsildars Cutcherries

Estimate for manufacturing — bricks

bricks and tiles at the Government brickfield during 1887-88.

Type design for a Sub Judge or District Munsiff's Court with a terraced roof

Estimate for repairs to the School of Arts

Estimate for improvements to the Telegraph office latrine

Estimate for Repairs to Presidency College

Estimate for constructing the parapet wall on the north side of the Revenue Board office with Stone.

Plan and Estimate for constructing a Police Station Registration office, Vaccination Depôt and Fire Engine Shed.

Estimate for Repairs to Lyng-m Hospital

Estimate for Repairs (annual) to the Revenue Board office.

Estimate for Special and periodical repairs to the Madras Observatory.

Plan and Estimate for providing Record racks to the Revenue Board Secretariat office

Estimate for certain additions and providing punkahs to the General Post office

Plan and Estimate for enclosing a portion of the upper Verandah in the Central block of the Lyng-m Hospital.

Estimate for repairing the plate glass windows of the P. W. D offices at Chepak

Estimate for providing Lightning Conductors to the Senate House

Estimate for Repairs to Boiler and Plant.

Estimate for enclosing a portion of the central block Lyng-m Hospital

Estimate for Repairs to the School of Arts.

Estimate for pedestal to the Queens Statue.

Estimate for repairs to the room occupied by the Assistant Director of Agriculture &c.

Plans showing sites for the new High Court

Estimate for providing an additional window in the P. W. D Lithographic Press

Estimate for repairs to P. W. D offices

Estimate for repairs to the Principal's Quarters

Quarters College of Engineering

Plan and Estimate for improvements to the Latrine Telegraph office

Estimate for laying additional piping at Chepâk

Estimate for repairs to the Post office

Estimate for providing glazed Shutters to the windows of the kitchen of the Telegraph office

Estimate for the doors required at the Ameer Mahal.

Revised Estimate for alliterations and additions to the ameer Mahal

Revised Design with Schedule of quantities for Court house for a Sub Judge or District Munsiff with terraced roofing

Estimate for Extending the Service pipes &c. at the apothecarys quarters of the Lyric-n Hospital

Estimate for Repairs to Andersons Memorial

Plan and Estimate for providing an iron railed Shutter for the Strong room door of the Post office

Estimate for repairs to the Telegraph office.

Two Estimates for the Conservancy Establishment for the Senate House Latrine

Estimate for providing Lightning Conductors to the Revenue board office

Estimate for laying piping in the Laundry Lyric-n Hospital.

Estimate for Carrying a pipe with tap from hot water cistern to the washing room

Plan and Estimate for constructing a new Town Magistrates Court at Madras

Estimate for replastering Ceilings of the Members and Secretarys rooms with cement.

Estimate for additions to the Post office Madras.

Sketch plans for combined office of the Inspector General of Registration District and Diocesan Registrar

Plans of Village Chavadies

Estimate for Connecting the large masses of iron in roof and water pipes in the Telegraph office with lightning Conductors

Do . Do Do to Post-office do

Estimate for restoring the roof of the Eastern block of the Revenue board Stables.

Revised front elevation for the Collectors Cutcherry at Cuddapah

Plan and Estimate for railing and gate at the South Entrance of the P.W.D offices at Chepâk

Estimate for forming a separate room with partition in the upper floor of the Revenue board buildings.

Estimate for Stove pipes at the Ophthalmic Hospital

Plan and Estimate for the Trevellyan Drinking fountain

Preliminary plans for a residence for the Collector of Ganjam at Chatrapur.

Plans and Estimate for placing an Electric clock in the northern verandah of the P.W.D offices

Estimate for providing Colored glass for the bathroom of the Superintendent in charge the Telegraph office.

Estimate for planting trees and laying Red Hills water to the grounds of Saint Andrews Church.

Plans and Estimates for accommodating the Government Press in the building occupied by the Director of Public Instruction on the Mount Road.

Plans of alterations and additions to be made to the building on the Mount Road occupied by the Director of Public Instruction to accommodate it for the Army Clothing Department

Estimate for plank ceiling for the Superintendents bed room Telegraph office.

Two Estimates for alterations and additions to be made in converting the late tracing room of the Survey office to fit up the Forest Museum.

Estimate for the preparation and Collection of materials required for the new High Court buildings.

Estimate and plan for additions to the Police Station under construction at Black Town.

Sketch plans of the new High Court

Court buildings to be erected at the fishing village Site.

J W Brassington
Consulting Architect
to Government.

E.1
No 5053/88

P. W. D

Consulting Architect's Office,
Chepauk, Madras,
29th May 1888.

No 339

From J. W. Brassington Esqr
To Consulting Architect
to the Government of Madras.

To

The Chief Engineer
Public Works Department.

Sir,

Enclosure. one

I have the honor to submit the following Report on the Administration of this office for the official year 1887-88.

General Remarks

The total amount expended on Original Works and Repairs was Rs 94,225 under the following heads:

Imperial Civil Works	Rs 3168
Provincial do	" 73332
do Mis: Public Improvements	" 14536
Local Excluded	" 3189
	Rupees 94225

College of Engineering

The completion of the additions to this building was retarded by the late arrival of the Iron girders from England and the failure of the Cast Iron Columns for the ground floor. Stone Columns had to be substituted which took time to obtain & dress. All the Columns & girders have been fixed in position and the tenoning of the floor completed, the work is now in active progress and is expected to be completed and ready for occupation by July next.

G.O. No 2547 of 29 Sept 1886

New Court House for the Presidency Magistrate

This work was commenced in January on the open site South of the Telegraph office on the Beach.

G.O. No 3440 W dy: 16 December 1887 Copy

Police Station, Vaccination Depot, Registration office and Fire Engine Shed.

This work was put in hand in February

Copy G.O. No 350 W dy: 30 January 1888

February with the amount contributed by the Municipality. It is situated at the junction of four Roads near Patchappas Hall and has been designed in keeping with its situation and will be a great improvement to the place.

Senate House.

The lightning Conductors of the Senate House have been refixed and the testing of them gave satisfactory results.

Combined Post & Telegraph Office

It was considered advisable to connect the masses of Iron in the roof and fall pipes in this building with the lightning Conductors

Improvements in the South Beach and Maintenance of the Chepak Park

Copy

The Extension of the Promenade along the foreshore from Elliots Road to St. Thome.

St: Thomé was completed in October as well as the cutstone wall along the side on the west side of the beach Road, between Pycroft's Road and the old Hindu Cemetery.

The planting in the Park and foreshore has been maintained and improvements made, where necessary. Rupees (1488) one thousand four hund & eighty eight were realized by the sale of hay, plants &c produced in the Park & old fishing village site and credited to Provincial Revenue.

Government Brick and Tile Manufactory.

8,26,740 Bricks, 15,900 flooring and 11,116 roofing tiles were supplied for Government works and 1,06,851 Bricks, 84,060 flooring and 79,773 roofing tiles for other than Government works chiefly the Madras Municipality, Town Hall & Mysore Government, at an advanced rate of 21½ per cent on Government rates.

The gross profits of the year were Rs 5005 & adjusted as follows:—

Rupees

Rupees 2946 being the amount of per centage charges realized was credited to Provincial Revenue, Rs 1514 was debited to Manufacture account towards periodical adjustment of Land & kiln charges and Rs 525 was also debited to the Manufacture account to cover the loss sustained by sale of old Stock articles.

A sum of Rs 500 was sanctioned for making experiments for producing decorative porcelain. The experiments made were, on the whole successful. A specimen panel was exhibited at the Fine Arts Exhibition held at Madras, was much admired. A quantity of this material is being prepared for the Exterior of the New Presidency Magistrates Court now under construction.

G.O. No. 2290 W dy. 25 August 1887.

Progress of Works

Imperial Civil Works

Major

Telegraph office Madras

Total sanctioned Estimate		Rupees 319969
Expenditure during 1887-88.	Rs 27	
Amount previously expended	" 317642	" 317669
Difference		2300

The small expenditure incurred was salary due to petty Supervision.

Minor

Post office - Madras

Total amount sanctioned Rupees 1196

Expenditure ——— 1149

Difference saving Rupees 47

Telegraph office. Madras

Total amount sanctioned — Rupees 2023

Expenditure during 1887-88 Rs 800

Amount previously expended " 819 — " 1619

Difference Rupees 404

Repairs

Post office - Madras

Amount sanctioned — Rupees 868

Expenditure ——— " 376

Difference saving Rs 492

Telegraph office - Madras

Amount sanctioned Rupees 880

Expenditure ——— " 816

Difference saving Rupees 64.

Provincial Civil Building

Major Works

Consulting Architect

Additions to the College of Engineering were nearly completed

Sanctioned Estimate ——— Rupees 90066

The Expenditure during the year was 1887-88 Rs 37738 and that upto date making a total outlay

Amount previously expended Rs 29281 was Rs 67019

Amount to be expended Rupees 23047

against an estimate of Rs 90,066.

The walls were completed to the full height, stone Columns in basement floor were set up and terrace floor laid, the Iron columns for the upper storey were fixed and iron girders set in position. Portion of the upper roof was also covered in.

New Court house for Presidency Magistrates.

Sanctioned Estimate ——— Rs 49830

Expenditure ——— " 6822

Amount to be expended Rs 43008

The foundations for the brain building were excavated and concrete laid, timber & other materials collected.

Police Station Vaccination Depôt
and Registration office

Sanctioned Estimate ____ Rs 12,000
Expenditure ____ " 2137
Difference to be expended Rs 9863

The work was completed up to basement level and materials for the superstructure being collected.

Constructing covered passages to the Ophthalmic Hospital - Madras

Sanctioned Estimate ____ Rs 11,010
Expenditure during 1887. 88 Rs 1664
Amount previously expended " 9192 ____ " 10,856
Difference saving Rs 154

This work was completed during the previous year with the exception of the painting & outer finishing which was done in May 1887.

amount was the balance due on account of the Brick presses received in the previous year and the rest chiefly for fire Engine appertenances.

The service books of the Employees of this Division are correctly maintained.

A list of plans & Estimates prepared in this Division during the year under review is appended.

J W Bassington
Consulting Architect
to Government.

P.W.C. No. 5053

Public Works Department.

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D

No. 339

Dated 29th May 1888.
Received 30.5.88

No. of Enclosures. one

Subject.

Submitting Administration Report of the Consulting Architect Division for the official year 1887-88.

Compiled
30.5.88

Comparative Statement showing the grant and outlay under all heads of service for the official years 1886-87 and 1887-88.

Heads of Service.		1886-87		1887-88	
		Grant.	Outlay.	Grant.	Outlay.
Provincial.					
Civil Buildings	Original works	2,15,856	1,92,048	1,75,313.	1,74,176
	Repairs	33,376	29,865	39,033	37,835
Communications	Original works	1,89,034	1,81,562	1,78,095.	1,78,388
	Repairs	49,360	48,821	49,758	49,558
Mis: Pub: Impts	Original works	1,46,030	1,28,358	51,797	46,988
	Repairs	1,915	1,577	1,081	1,061
Imperial					
Military	Original works	51,533	43,529	48,252	48,118
	Repairs	65,497	63,390	64,205	59,112
Other services	Original works	2,206	2,267	2,139	2,457
	Repairs	2,250	2,152	1,559	1,307.
Carried over		7,57,057	6,93,569	6,11,232	5,98,99

Heads of Service.	1888-86		1887-88	
	Grant.	Outlay.	Grant.	Outlay.
Brought forward	7,57,057.	6,93,569.	6,11,232	5,98,994.
Excluded Local.				
Mis: Pub: Impts — Original works	1,426	550.	1,538	1,148.
Mis: Pub: Impts — Repairs	"	"	5,659	5,008.
Incorporated Local.				
Mis: Pub: Impts — Original works	"	"	1,188.	1,096.
Mis: Pub: Impts — Repairs.	"	"	"	"
Estate works under the Administration of Court of wards	615	414	2,126	158
Total	7,59,098	6,94,533	6,21,743	6,06,403.

Supg. Engineer's office IV Circle
Camp Tripatore 25th May 1888

L. V. Beatty. Colonel R.E.
Superintending Engineer
IV Circle.

E2
PW Leg 23/88

Comparative Statement
Showing the grant & outlay
under all heads of Service
for the official years
1886-87 and 1887-88.

Administration Report
of the
Public Works Department
General, Buildings & Roads Branch.
Fourth Circle,
Madras Presidency.
for the year
1887-88.

I General Remarks.

1. Grants and expenditure.-

The original grant under Imperial Military works was Rs 1,01,185, the revised estimate was Rs 1,12,457 and the expenditure amounted to Rs 1,11,127.

Under Imperial Civil Works, the original grant was Rs 1,300 and the revised estimate was Rs 3,698, while the expenditure amounted to Rs 3,756.

Under Provincial the figures were; original grant Rs 4,60,688, revised estimate Rs 4,95,077, and expenditure Rs 4,88,029.

2. Cruz Milagre Dam, Cochin- remained in fair order. The only expenditure

Copy

was Rs 11 for the half yearly test soundings.

An estimate of Rs 330 for keeping the revetment up to its original height was prepared towards the close of the year and forwarded to the Port Officer for provision of funds with this office No 155 M of 9th May 1888.

The land adjoining the Cruz Milagre dam was objectionably meddled with by the villagers by cutting channels so as to endanger the safety of the Dam. This was brought to the notice of the Cochin Sirkar through the Political Department and the Sirkar gave prompt attention to the matter and stopped the irregular practices of the villagers and thus secured the safety of the Dam. Vide G.O. No 1380 M of 11th May 1888.

3. Mangalore Harbour.

No expenditure was incurred during the year. The annual report with a Chart of the Harbour, as it now is, was submitted to Government; the second or Northern mouth has closed, and there is but a single bar, where it used to be some 35 years ago, opposite the Naitravati River. Vide G.O. No 1167 M. of 18th April 1888.

4. Ootacamund water Supply.

The most important work in the Nilgiris during the year under review was the Ootacamund North water supply scheme. The pipes were received early in May and laying was commenced shortly afterwards, the work being entrusted to Messrs Wallace, Moonie Hoochannah and Co.

As 80 per cent of the pipes were turned and bored, it was decided to joint them with Portland Cement, the material usually employed for such pipes, because the recesses in the joints at bends are not sufficiently wide for a lead joint. It was confidently hoped that the system would be laid by the close of the year, but owing to the incapacity and inexperience of the Contractors the joints when tested were found to fail universally, and it has since been found necessary to annul the Contract and give the work to another firm. This has generally delayed the completion of the work and the entire System will not now be ready until October 1st 1888.

5. Adam Memorial Fountain.

The delay in the execution of the Ootacamund North water Supply Scheme has naturally affected the Adam Memorial Fountain which is to receive its supply from the new system. It will however, it is hoped, be formally opened on the Queen's birth day, 1888.

6. Wynaad Communications.

Reforming and metalling the Calicut Vayitri road made much progress during the year. The work from Calicut to 18th mile was almost, and the Tamracherry ghat entirely completed. Only the portion between the 18th mile to the foot of the ghat could not have its metal laid in the dry months and has to wait the 1888 South-West monsoon. Several culverts have been re-constructed.

Of the Iron Bridges, the Kadanga-poya bridge 2 Spans of 50 feet had the girders in place and would be open for monsoon traffic; the Ingapoya bridge foundations were laid and the materials collected for the Superstructure to a great extent. The foundations for the Vengari bridge were excavated and materials in part readiness at site. Two minor bridges of 20 feet and 15 feet Span respectively were put up.

Mile stones were fixed as far as the 26th mile and these stones carried to site at Vayitri.

The road was maintained during the year in order and kept open for cart traffic at a cost of Rs 18,934.

The total grant for the year for work on the Calicut Vayitri road including repairs amounted to Rs 1,55,000 while the expenditure was Rs 1,55,897. The total outlay on the road to the end of 1887-88 was Rs 3,10,925, against the revised estimate of Rs 4,11,965.

With regard to the Vayitri Gudalur Road a sum of Rs 7772 was expended against a grant of Rs 7584 on the Masonry and ap-proaches of the Sholadi bridge. The progress became so slow owing to departure of the Contractor that the work has been made over to the Nilgiri Division for completion.

7. Improvements at Ootacamund.

With the purchase during the year of that portion of the "Cedars" property, which adjoins the lake at a cost of nearly Rs 8,000, the Government have now obtained possession of the whole Lake margin at Ootacamund. It has been with the exception of the "Cedars" portion above mentioned, fenced in in 1887-88, and during the coming year the Government Botanist will direct the ornamental planting operations which are in contemplation.

8. The buildings on Mountstuart occupied by the Army Head Quarters Staff have undergone extensive improvements during the year and are now as habitable as it is possible to make them.

9. Military Church at Wellington.

The construction of a Roman Catholic Military Church at the station to contain 200 sittings was completed by the Roman Catholic Chaplain within the Government grant and was opened on April 22nd 1888.

Slight cracks having appeared in the walls of the tower, the Chaplain has been prohibited from proceedings with the construction of the Spire, which he is anxious to build out of private funds, until futher orders.

10. All Government buildings at Ootacamund have been supplied with Lightning Conductors on the most approved principles.

11. The (Ootacamund Mettupolayam) Coonoor Ghat, has been supplied with new mile and furlong Stones, and the distances corrected as follows:-

Ootacamund to Coonoor. Old distance Miles 12.
Corrected do do 11.

Ditto to Mettupolayam. Old do do 34
Corrected do do 32

Ditto to Gudalur distance 31.

Rs 41000 have been spent during the year in maintaining the ghat Road from Kallar to Gudalur with fair success. Collection of metal for remetalling was in active progress at the close of the year, and Rs 6239 were also spent on Repairing the Bridges on the Road.

12. New Magazine at Wellington.

A new Magazine has been built at

at Wellington for the use of the European Infantry now quartered there.

13. Bakery at Wellington.

Although it has been in use for baking for more than a year, is still not quite complete, as far as its grinding machinery is concerned. The Commissariat Depart-ment have charge of this and will complete it very shortly.

14. New Building for the Breeks' Memorial School, Coïacamund.

The building was opened by His Excellency the Governor in March 1888, and was pronounced a great success. The school was completed with an outlay of Rs 47,026, the expenditure in the year under review being Rs 25,276.

The old school building will now be very shortly converted into a Sub Judges' Court; an estimate amounting to Rs 10,000 was submitted for sanction of Government through the District Judge, Coimbatore

15. Coïacamund Government Brickfield.

It is so difficult to obtain a sound brick at a reasonable cost with the earth obtainable

E.1
P.W.4923/88

Administration Report
of the
Public Works Department
General, Buildings and
Roads Branch
Fourth Circle,
Madras Presidency
for the year
1887-88.

No: 193
Gen.

Superintending Engineer's Office, IV Circle,
Camp Tripatore 25th May, 1888.

From

Colonel J. Beatty, R.E.,
Superintending Engineer,
Fourth Circle.

To

The Chief Engineer,
Public Works Department.

Sir,

Enclosures 2
1st Administration Report
1 Comparative statement.

I have the honor to submit my Administration Report of the General Buildings and Roads branch of the 4th Circle for the year 1887-88 with a comparative statement showing the grant and outlay under all heads of service for the official years 1886-87 and 1887-88.

I have the honor to be,
Sir,
Your most obedient Servt

J. Beatty. Colonel R.E.,
Superintending Engineer, IV Circle.

A

P.W.C. No. 4923

From

Colonel J. Beatty, R.E.,
Superintending Engineer,
Fourth Circle.

To

The Chief Engineer,
P. W. Department.

Dated 25th
Desp.d
Rec.d 28
} May 1888.

No. 193
EW.

Enclosures. 2

Administration Report.
General Branch.
Submits the ——— for
1887-88.

Compile
WM
18.5.88
DW

Administration Report of the Superintending Engineer III Circle, (Buildings and Roads) for 1887-88.

1. General Remarks

1. The administration of the Circle devolved, during the year under review on Colonel H. Smalley R.E. in succession to Offg. Superintending Engineer Mr. C. J. Peters who was transferred to North Arcot Division in September 1887.

In the Bellary Division a Head Quarter Sub Division comprising the town, Cantonment of Bellary and Ramandrug Depot was constituted and placed in personal charge of the Executive Engineer, and the Northern Sub Divisional Officer was set free so that he might pay more attention to the supervision of Irrigation channels and other works in the Sub Division. This arrangement was sanctioned by Government in G.

No. 672 W. dated 27th February 1888.

In the Cuddapah Division, the Talugs comprising the Head Quarter Sub Division transferred to the charge of the Sub Divisional Office altering the designation from "Head Quarter Sub Division" to Western Sub Division. The Talugs of the Eastern Sub Division transferred to the charge of the Executive Engineer to form the Head Quarter Sub Division. This modification was necessary to suit the existing working staff of the Division and sanctioned by Government in G. O. No. 1262 W. dated 1st April 1888.

2. Grants and Expenditure:- The original grant under Imperial Military for the Bellary Division was Rs 20,399. the revised grant was Rs 19,198 and the expenditure amounted to Rs 20,133.

Under Imperial Civil Buildings figures were

Postal	Orig. grant	Revised grant	Outlay
Bellary	2242	2242	2604.
Cuddapah	"	"	"
Kurnool	"	"	"
Carried over	2242	2242	2604

Brought over	2242	2242	2604.
Telegraph	Orig. grant	Revised grant	Outlay.
Bellary	"	"	"
Cuddapah	"	"	"
Kurnool	"	"	"
	"	"	"
Total Postal and Telegraph	2242	2242	2604.

Under Provincial, the Original grant was Rs 1,55,116, the revised grant Rs 1,31,619 and the expenditure Rs 1,24,661.

Contract system — 3. The contract system is generally in force.

Rates — 4. There have been no appreciable fluctuations except in the Kurnool Division where they have risen owing to the progress of Railway Works in the District.

Season — 5. Throughout the Circle there has been an unusual amount of sickness during the year. Fever has been very prevalent in Bellary and Kurnool Division and has considerably interfered with our door and Office work. In the Cuddapah and Anantapur Districts works were

12th June 1888

delayed owing to cholera.

6. An ample stock is available in the circle vide G. O. No. 2787 S dated 7th November/84. — Reserve Stock of Tools for relief Works.

7. 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.

8. Service books have been maintained for all public servants for whom the books are authorised and they are brought up to date. — Service Books.

9. A portion of the roof of the native Cavalry Hospital fell in. The accident was due to the rafters having been hollowed out by white ants. This accident led to a careful examination of the Infantry and Cavalry Barracks all of which were found to be in a very unsatisfactory state.

The thatch roof of the European Infantry Plunge Bath was destroyed by fire caused it is supposed, by sparks from a passing engine. — Accidents to buildings

12th June/85

From P.W.D. 5020

The Supdg. Engineer
3rd Circle
Bellary

To

The Chief Engineer
P.W.D. Septe
Madras

Rated 28th Aug. 1888.
Recd 30th Aug. 1888.

Administration Report of the Superintending Engineer III Circle (Buildings) Cargo and Roads) for 1887-88.

III Circle.

Statement shewing the grants and outlay under Provincial, Local (Incorporation) and Local (excluded) Funds for the official year 1887-88.

Fund	Divisions	Civil Buildings				Communications				Miscellaneous Pub. Impts				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	10,310	7,557	1,340	1,448	-	-	-	-	-	-	500	539	12,150	9,544	500	-
	Kistna Western	1,615	1,113	1,275	673	-	-	-	-	-	-	-	-	2,890	1,786	100	-
	Nellore	5,161	6,739	3,000	3,090	-	-	-	-	-	-	-	-	8,161	9,829	1,500	-
	Buckingham Canal	-	-	-	-	-	-	-	-	2,000	1,934	-	-	2,000	1,934	-	-
	Total	17,086	15,409	5,615	5,211	-	-	-	-	2,000	1,934	500	539	25,201	23,093	2,100	-
Incorporated Local	Kistna Eastern	-	-	-	-	3,391	4,344	265	250	-	-	-	-	3,656	4,594	-	-
	Kistna Western	-	-	-	-	-	453	1000	881	-	-	-	-	1,000	1,334	-	-
	Nellore	-	-	-	-	-	-	600	567	-	-	-	-	600	567	-	-
	Total	-	-	-	-	3,391	4,797	1,865	1,698	-	-	-	-	5,256	6,495	-	-
Excluded Local	Kistna Eastern	-	-	-	-	-	-	-	-	-	-	1,736	1,736	1,736	1,736	-	-
	Buckingham Canal	-	-	-	-	-	-	-	-	564	669	1,000	755	1,564	1,424	-	-
	Total	-	-	-	-	-	-	-	-	564	669	2,736	2,491	3,300	3,160	-	-

Supdg Engineer's Office
12th June 1888

Compared.

J Hammett
Superintending Engineer
III Circle

II Circle

Statement showing the grants and outlay under Imperial Funds for the official year 1887-88.

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	"	"	"	105	"	-161	"	"	250	255	"	"	"	"	250	199	
Kistna Western	"	"	19	12	100	"	"	"	100	"	"	"	"	"	219	12	
Nellore	240	250	"	318	300	97	"	"	"	"	"	"	"	"	540	665	
Buckingham Canal	"	"	"	"	"	"	"	"	"	"	"	5193	"	"	"	5193	
Total	240	250	19	435	400	-64	"	"	350	255	"	5193	"	"	1009	6069	

Suply Engrs Office
II Circle
12th June 1888

Compared

J Hammond
Superintending Engineer
II Circle

E 1
M 5707/88

Administration Report

of the

Public Works Department

(General - Buildings & Roads Branch)

for the year

1887-88.

I General Remarks

Grant and outlay.

The grant under Military Repairs - Imperial - was Rs 240 and the expenditure Rs 250.

Under Imperial Civil works the grant was Rs 1,009 and the expenditure Rs 6,069.

Under Provincial the grant was Rs 25,201 while the expenditure Rs 23,093.

The grant under Incorporated Local Funds was Rs 5,256 and the expenditure Rs 6,495.

Under "Excluded Local" the grant was Rs 3,3 and the expenditure Rs 3,160.

2. Divisional charges

The following officers were in charge of the several Divisions during the year.

Kistna Eastern Division

Mr.

Mr C.H.B. Burlton from 1st April/87 to 8th August/87

Mr C.H.D Marjoribanks from 9th August/87 to 18th sept/87.

Mr J. Praill from 19th September/87 to 31st March/88.

Kistna Western Division

Mr S.D. Pears - in April and May/87

Mr C.W. Wood - in June and July 1887.

Mr J. Praill - in August and September/87

Mr A.B. Todd - from October to March 1888.

Nellore Division

Mr A.A.G. Malet - from 1st April/87 to 28th July/87.

Mr J.J. Whiteley - from 29th July 1887 to 24th Oct/87.

Mr A.A.G. Malet - from 25th October/87 to 31st March/88

Buckingham Canal Division

There were no changes in the charge of the Division during the year.

3. Sub Divisions.

The Northern and the Head Quarter Sub Divisions of the Kistna Eastern Division were amalgamated during the year, and some changes in the Sub Divisions of the Buckingham Canal Division were ordered, but not carried out as the orders were issued only at the close of the year.

4. Service Books.

These have been correctly maintained.

PWC № 5707

Rg 15.6.88
E.2
II Circle

Administration Report
of the
Public Works Department.
(General Buildings & Roads Branch)
for the year
1887-88.

Compiled

Administration Report-
(General, Buidings & Roads Branch)
for the year 1887-88-

First Circle-

I General Remarks.

1 The grants & Outlays under the various heads will be found detailed in Part II.

2. In the Ganjam District- the chief work was the Gopalpur Screw pile pier- which has been brought almost to completion- The revised estimate for Rs. 3,08,200 was sanctioned in G.O No. 1450 W. dated 27-5-87- The outlay in the official year under review was Rs. 61,342 out of an allotment of Rs. 97,104-

In the Vizagapatam District- the chief work was the construction of the "Potinghi-Korapet Road"- Estimate Rs. 2,81,940- The progress on this continued distressingly slow, owing to the same reasons as those given in last years report:- the unhealthiness of the locality & the consequent difficulty of keeping subordinate supervision on the work- It was visited

The outlay to end of the official year was Rs. 102196 and during the off. year was Rs. 71627 & the expenditure Rs. 24006 were incurred on account of iron bridge supplied from England.

by the Superintending Engineer in January 1888 and the state of progress is given in his Inspection Notes, dated 30-1-88. The iron work for two bridges on the Road was delivered at Bimlipatam in October.

A revised estimate for the whole work will have to be sent in shortly.

The Potinghi-Ghat road has been kept in good order; the traffic on it is great. no less than 28136 bandies passed over it in the official year.

The Surveying & levelling for a road from Koraput to Jagadalpur is still going on. the unhealthiness and wildness of the country and the impossibility of close supervision of the Surveyor make the work slow, the Executive Engineer however reports that in 1887-88, a survey has been made viz Jeypore to Barigumma, a distance of about 26 miles, and the original Survey has been pushed on, from Omerakota to within 15 miles of the frontier of the Central Provinces.

The changes in the Staff were not so numerous as in the previous year; the chief were:—

In the Ganjam Division, which from the 1st April 1887 was formed out of two Divisions "Rushikulya & Ganjam" of the previous year. Mr Haman gave over charge on 25-5-87 to Mr H. E. G. Evans who again gave over charge on 23rd August 1887 to Mr G. D. Wybrow, Executive Engineer 1st Grade

From 1st April 1888 the Division is again separated into two "Ganjam" and "Rushikulya". Mr J. W. S. Smyth Assistant Engineer 2nd Grade joined on 25th Dec. 1887.

In the Vizagapatam Division Colonel A. T. Fraser R. E. held charge till 16th November 1887 when he gave over to Mr C. J. Ussher.

In the Godavari Eastern Division Mr I. E. Paul has continued to hold charge during the whole year, but Mr J. F. Somers Eve Assistant Engineer had to go on sick leave from 5-9-87 and his place was not supplied till 21-2-88 when Mr F. J. Wilson joined & took charge of the Head Works Sub Division. Mr Mathew Loam Assistant Engineer 2nd Grade joined the Div. on 5-12-87.

In the Godavari Central Division Mr W. C. Lewis remained in charge the whole year with Mr R. A. Srinivasa Aiyangar as his assistant.

In the Godavari Western Division Mr W. C. de Morgan has remained in charge during the whole year with Mr J. Strode Wilson as his assistant.

Divisional changes. The Godavari Central Division which was a temporary one was made permanent, and the Head Quarters of the Division were removed from Dowlaishwaram to Palli vide PD No. 1684 W. of 23-6-87.

Administration Report Part II

statement shewing the outlay Compared with grant under Departmental Heads.

		Imperial								
		Military					Other Service			
		Original Budget grant	As modified after variation of Budget grant	Expenditure	Expenditure Compared with modifications		Original Budget grant	As modified after variation of Budget grant	Expenditure	Expenditure compared with modifications
					More	Less				More	Less
Original Works	Ganjam Division		"	"	"	"					
	Vizagapatam Do		"	"	"	"		1689	1746	57	"
	Godavari Eastern Do		"	"	"	"					
	Do Central Do		"	"	"	"					
	Do Western Do		"	"	"	"					
	Total		"	"	"	"		1689	1746	57	"
Repairs	Ganjam Division		450	958	508	"		"	141	141	"
	Vizagapatam Do		3200	3275	75	"		1100	696	"	404
	Godavari Eastern Do		1250	693	"	557		1280	675	"	605
	Do Central Do		"	"	"	"		"	"	"	"
	Do Western Do		"	"	"	"		"	"	"	"
	Total		4900	4926	583	557		2380	1512	141	1009

statements shewing outlay Compared with grants under Departmental Heads.

		Provincial										Local								
		General					Navigation					Incorporated					Excluded			
		Original Budget Grant	Augmentations after the Budget grant	Expenditure	Expenditure Compared with modification		Original Budget Grant	Augmentations after the Budget grant	Expenditure	Expenditure Compared with modification		Original Budget Grant	Augmentations after the Budget grant	Expenditure	Expenditure Compared with modification		Original Budget Grant	Augmentations after the Budget grant	Expenditure	Expenditure Compared with modification	
					More	Less				More	Less				More	Less				More	Less
Original Works	Ganjam Division		1050	1202	152	"												97,104	61,342	"
	Vizagapatam Do		103211	104104	893	.												225	341	116
	Godavari Eastern Do		19864	17910	"	1954							4000	3850	-	150			65	65
	Do Central Do		554	654	"	.							630	1880	1250	"		"	"	"
	Do Western Do		18950	23403	4453	.												"	"	"
	Total		143629	147173	5498	1954							4630	5730	1250	150		97329	61748	181
Repairs	Ganjam Division		3800	3378	"	422							400	413	13	"				
	Vizagapatam Do		9611	13678	4067	"							"	"	"	"		162	60	"
	Godavari Eastern Do		12000	12205	205	"							4803	4435	"	368		1520	749	"
	Do Central Do		300	13	"	287														
	Do Western Do		381	94	"	287														
	Total		26092	29368	4272	996							5203	4848	13	368		1682	809	"
Roads & Canals	Ganjam Division		"	"	"	"														
	Vizagapatam Do		1000	3703	2703	.														
	Godavari Eastern Do		"	"	"	"							50	45	"	5				
	Do Central Do		"	"	"	"														
	Do Western Do		"	"	"	"														
	Total		1000	3703	2703	"														

No II

statements shewing outlay Compared with grants under Departmental Heads

Funds	Class	Departmental Heads	Outlay	Total
Military	Ganjam Division	Head	"	"
	Vizagapatam Do		"	"
Original Works	Godavari Eastern Do		"	"
	Do Central Do		"	"
	Do Western Do		"	"
	Ganjam Division		958	"
	Vizagapatam Do		3275	8275
Repairs	Godavari Eastern Do		693	693
	Do Central Do		"	
	Do Western Do		"	4926
Roads & Canals	Ganjam Division		"	
	Vizagapatam Do		1946	1946
Original Works	Godavari Eastern Do		"	
	Do Central Do		"	
	Do Western Do		"	1746
	Ganjam Division		141	
	Vizagapatam Do		696	
Repairs	Godavari Eastern Do		675	
	Do Central Do		"	
	Do Western Do		"	1572
Provincial	Ganjam Division		1202	
Local Building	Vizagapatam Do		13353	
Original Works	Godavari Eastern Do		17910	
	Do Central Do		554	
	Do Western Do		23403	56422

Provincial Civil Buildings Repairs	Ganjam Division	3,378		
	Vizagapatam Do	2239		
	Godavari Eastern Do	3,954		
	Do Central Do	13		
	Do Western Do	94	9,678	
Communications Original Works	Ganjam Division	"		
	Vizagapatam Do	90,751		
	Godavari Eastern Do	"		
	Do Central Do	"		
	Do Western Do	"	90,751	
Repairs	Ganjam Division	"		
	Vizagapatam Do	11439		
	Godavari Eastern Do	8041		
	Do Central Do	"		
	Do Western Do	"	19,480	
Mis. P. Improvements Repairs	Godavari Eastern Do	210	210	
Tools & Plant	Ganjam Division	"		
	Vizagapatam Do	3703		
	Godavari Eastern Do	"		
	Do Central Do	"		
	Do Western Do	"	3703	
Incorporated Local Communications Original Works	Ganjam Division	"		
	Vizagapatam Do	"		
	Godavari Eastern Do	"		
	Do Central Do	1880		
	Do Western Do	"	1,880	
Repairs	Ganjam Division	413	413	

Other Incorporated Local Communications Original Works	Eastern Division	3850	3,850	
Repairs	Eastern Division	4435	4,435	
Excluded Local Civil Buildings Repairs	Eastern Division	558	558	
Do Mis Public Improvements Original Works	Ganjam Division	61,342		
	Vizagapatam Do	341		
	Godavari Eastern Do	65	61,748	
Do Repairs	Vizagapatam Division	60		
	Godavari Eastern Do	191	251	

No III

Statement showing outlay Compared with grants under Departmental & Service heads.

Subheads	Imperial										
	Military					Other Service					
	Original Budget grant	Modified grant	Outlay	Outlay Compared with modified grant		Original Budget grant	Modified grant	Outlay	Outlay Compared with modified grant		
				More	Less				More	Less	
Military	"	"	"	"	"		"	"	"	"	
Original Works Civil Buildings		"	"	"	"		1689	1746	57	"	
Original Works Communications		"	"	"	"		"	"	"		
Original Works Mis P. Improvements		"	"	"	"		"	"	"	"	
Total		"	"	"	"		1,689	1,746	57	"	
Military		4,900	4,926	26	"		"	"	"	"	
Repairs Civil Buildings		"	"	"	"		2380	1512	"	868	
Repairs Communications		"	"	"	"		"	"	"		
Repairs Mis P. Improvements		"	"	"	"		"	"	"	"	
Total		4,900	4,926	26			2,380	1,512	"	868	
Grand Total		4,900	4,926	26			4,069	3,258	57	868	

01

First Circle

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		Original Budget grant	Modified grant	outlay	Outlay Compared with modified grant		Original Budget grant modified grant	Outlay	Outlay paid with modified grant		Original Budget grant	Modified grant	outlay	Outlay paid with modified grant	
				More	Less				More	Less			More	Less				More	Less
Original Works Civil Buildings		50918	56472	5504	"						"	"	"	"					
Original Works Communications		92711	99751	"	1960						4630	5730	1100						
Original Works Mis P. Improvements		"	"	"	"										97329	61748	"	35581	
Total		143629	147173	5504	1960						4630	5730	1100		97329	61748	"	35581	
Repairs Civil Buildings		10481	9678	"	803						5203	4848	"	355	600	558	"	42	
Repairs Communications		15611	19480	3869	"										1082	251	"	831	
Repairs Mis P. Improvements		"	210	210	"														
Total		26092	29368	4079	803						5203	4848	"	355	1682	809	"	873	
Grand Total		169721	176541	9583	2763						9833	10578	1100	355	99011	62557	"	36454	

Statement Showing the outlay on Works under each Fund distributed by Divisions

Divisions	Imperial								Provincial		Local				Irrigation		Total	Establishment	Grand Total
	Military		Other Service		Other Public Works		Productive Public Works				Incorporated		Excluded						
	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs	Original Works	Repairs			
Ganjam Division		958	"	141	"	"	"	"	1202	3378	"	413	61,342	"	"	"	67,434		
Vizagapatam Do		3,275	1,746	696	"	"	"	"	104,104	13,678	"	"	341	60	"	"	123,900		
Godavari Eastern Do		693	"	675	"	"	"	"	17,910	12205	3850	4435	65	749	"	"	40,582		
— Do — Central Do		"	"	"	"	"	"	"	554	13	1,880	"	"	"	"	"	2,447		
— Do — Western Do		"	"	"	"	"	"	"	23,403	94	"	"	"	"	"	"	23,497		
		4,926	1,746	1,512	"	"	"	"	147,173	29,368	5,730	4,848	61,748	809	"	"	257,860		

10
12.

P.W.C. No. 5498

FROM J. E. Paul Esqr
~~THE SUPERINTENDING~~ Executive ENGINEER
In charge FIRST CIRCLE.

TO

THE CHIEF ENGINEER
~~FOR IRRIGATION.~~
D.P.W.

DATED 15th
DESPATCHED "
RECEIVED 11.6.88 } June 1888

~~No.~~

ENCLOSURES.

SUBJECT.

Administration Report.

General Buildings and Roads branch for the Year 1887-88 of I Circle.

No. 2805W dt 10-9-88.

Compile
11.6.88

EXAMINER
No. 1394
1 AUG 1888
ENCLOSURES 1
P.W. ACCOUNTS

No. 2874C ~~#~~

Government of Madras.

PUBLIC WORKS DEPARTMENT,
~~Ootacamund,~~ Madras 31st July 1888.

OFFICE NOTE.

From W

To C

For the opening para of the Administration Report General Branch, for 1887-88, please supply a statement in the attached form.

26/7/88
W

Cu

P.T.O.

B. 25.7.88 R. 31.7.88.

P.W.C. No 7872

To W. No. 2032 of 8-8-88

Herewith the statement you require.

2. The outlay on Provincial Civil Works is subject to modification after the accounts have been finally closed on or about the 15th. Instant.

Encl

Rec'd 9-8-88

C.

Ag 8/8.

Enc. one.

Grants & Expenditure

	Original grant	Revised Estimate	Expenditure
Imperial - Military Works	-----	-----	----
Imperial - Civil Works	-----	-----	----
Provincial, Civil Buildings, Communications & Miscellaneous Public Improvements	-----	-----	----
Local - Incorporated funds	-----	-----	----
Local - Excluded funds	-----	-----	----
Estate Works	----	----	----

No. 2874 C.

Government of Madras,

PUBLIC WORKS DEPARTMENT,

Chepâk, 31st July 1888.

OFFICE NOTE.

From

W

To

C

For the opening para of the Administration Report General Branch for 1887-88, please supply a statement in the attached form.

(Sd) J. O. H.
26/7/88
W.

B 8/31/7

D 1/8

Sd 9/8

R

VIth Circle

General, Buildings and Roads Branch.

Administration Report of the Sixth Circle for the Year 1887-88.

I. General Remarks.

Administration of the circle.

1. Lt: Col: J. Pennycuick R.E, who resumed charge of the Circle on the 28th March 1887, having been posted as Superintending Engineer, Periyar Project, the charge of the Circle devolved on Mr: J. W. Rundall from the 29th December 1887, the date on which the former was re:leived.

Grants and outlay

2. The original grant under Imperial Military works was Rs: 11,195, the final or revised grant was Rs: 7,430, and the expen:diture was Rs 7,547.

Under Imperial Civil works, the original grant was Rs: 2,425, the final grant was Rs: 3,480, and the expenditure was Rs: 3,512.

Under Provincial the sums were: Origi:nal grant Rs. 109007, final grants Rs: 171816 and outlay Rs: 1,66,498.

Under Incorporated Local Funds the figures were: Original grant Rs: 1,33,248, revised

revised Estimate Rs: 1,35,923, and expendi:
:ture Rs: 1,36,214.-

Under Excluded Local Funds, the amounts were: Original grant Rs: 6,530 final grant Rs: 5,378, and outlay Rs: 4,719.-

3. For the construction of the Stone drains for New Lines, at Trichinopoly, Rupees 5,140 were granted in the Final Budget, under class A, Military works, but as it was subsequently decided by His Excellency the Commander-in-Chief to abandon this pro:
:posal, the amount was withdrawn in G. O. No. 2000. W. of 26th July 1887.-

Drains for New Lines at Trichinopoly

4. In G. O. No. 3247. W dated 12th December 1887, Mr: G. E. Manson Assis:
:tant (now Executive) Engineer, was appointed to investigate the Scheme for Improving the Negapatam water Supply and Drainage, his reports on the Subject, with the Superintending Engineer's opinion thereon, were Submitted to the Chief Engineer with No. 2172 T. J, dated 29th February 1888.-

Water Supply and Drainage Scheme Nega:
:patam.

Copy

5. With reference to order No. 188. W. dated 17th January 1888 on His Excellency the Governor's minute on his tour in the Western and South:
:ern Districts, the Executive Engineer's report on the scheme for Tuticorin water Supply was Sub:
:mitted to the Chief Engineer, for Irrigation, with the

Water Supply for the Towns of Tinnevelly and Tuticorin.

the Superintending Engineer's opinion, in No. 111. T.N dated 30th April 1888, and the Executive Engi:
:neer's report on the Scheme for Supply of water for the Town of Tinnevelly was forwarded to the Chairman of the Municipal Council, with Lt: Col: Pennycuicks No: 630. T.N, dated 30th November 1887.-

Divisional and Sub Divisional changes.-

6. The Grand Anicut Sub Division in Tanjore has been, during the year, amalga:
:mated with Head quarter Sub Division under G. O. No: 2051. W dated 1st August 1887.-

Cause of Short outlay.

7. The Short outlay of Rs: 4,518 under Provincial with reference to the final grant was chiefly due to the amounts given not being fully utilized on the 4. Works:- Taluq Catcheri, at Mayavaram, in the Tanjore Dn; District Munsiffs Courts at Mannargudi, and Trivalur in the Negapatam Division, and repairs to the Sea Custom Office at Devi:
:patam, in the Ramnad Division. In the case of the first, although work was done to the extent of the grant, the Bill for the same was not sent, in time, by the Sub-Divisional Officer; as regards the Second and third, they were delayed partly by the Car feasts in the places, and partly by the failure of Contractor, and by rain and cholera;

the

the contractor for the last failed to complete the repairs by the end of March 1888.

The Short outlay under Excluded Local Funds, was owing to the great difficulty experienced in the execution of the work of Constructing a Light House at Manapad. No Contractor would take it up for a long time owing to the inaccessibility of the Situation, it being very difficult to obtain labor, and to convey materials. Hence, from the grant of Rs: 1,300 only Rs 809 have been utilised, in laying concrete foundations, and raising walls of lower Story to a height of 8 feet. Estimate Rs: 1,300.

Service Books

8. Orders regarding the correct maintenance of Service Books are reported to have been observed, except in 3 cases of Conservancy Lascars, in the Negapatam Division, whose Service Books are being verified for Completion, and of a few individuals newly appointed in the Madura Division.

Casualities.

9. During the year the Department suffered the loss by death of Honorary Lt: and Assistant Engineer D. Falvey, who went on 3 months Privilege leave and died at Ootacamund on the 21st March 1888.

II. Progress of Works.

I. Imperial Military works.

10.

VI^y Circle. P.W.D.

Ramnad Zemindari

Wards Estate works.

Administration Report for the year 1887-88.

I. General Remarks.

Changes in Division and Officers.

1. The Ramnad Division, which was reduced into a Sub Division at the end of the preceding year, was again formed into a regular Division from the 1st May 1887. Mr: C. B. Target Executive Engineer, took charge of the Division from Mr: W. S. Harington on the 3rd June, and the former was relieved on the 10th February 1888 by Mr. W. Jopp.

Grants and Expenditure.

2. Civil Buildings. The original grants were Rs: 11,000 under Ain, 23,000 under Devastanam and 6,000 under Chuttram, the revised grants were Rs: 14,154, 21,346 and 14,260 respectively, ~~which~~ while the Expenditure was Rs: 7,418, 9,941 and 9,722, respectively; showing a total short outlay of Rs: 23,679, with reference to the total revised grant.

37

3. Agricultural works. The original grants were Rs: 79,000 under Ain, 17,000 under Devastanam and 4,000 under Chuttram, the revised grants ~~being~~ were Rs: 59,366, 9,712 and 1,427, while

39

The

the expenditure amounted to Rs: 43,626, 4,874 and 1,142, respectively, showing a total short outlay of Rs: 10,863, with reference to the total revised grant.-

Cause of short outlay.

4. The revised grants shewn above were sanctioned in G.O. No: 805 W dated 12th March 1888 on the modifications of grants proposed by Mr: Target, but in proposing these modifications this Officer does not appear to have given due consideration to the circumstances of the Division. The works are numerous though generally petty and scattered over the whole Estate.-

The short outlay under Buildings was due (1) to failure of Contractor, (2) to scarcity of labor and (3) to inspection by the Executive Engineer of Temple works in progress being refused by temple authorities. The short outlay under Agricultural was due (1) to early and heavy rains by which Tanks were filled for an unusually long period (2) to scarcity of labor which was almost all engaged in extended cultivation and harvesting operations (3) to want of sufficient Estimates for works entered in the Budget, which also do not appear to have been prepared by the former Executive Engineer so as to have enough

Survey operations for Estimates for Tanks and channels.

enough Estimates on hand to utilise the grant.-

5. Survey operations in connection with the proposals for improvements to the Regumatha Cannery channel were in hand during the year and rough estimates were under preparation. The levels taken are reported by Mr: Dopp to be all wrong and useless.-

One new Estimate of Rs: 1100 sanctioned during the year under this head, levels were completed and Estimate sanctioned for one Tank, levels were completed and Estimate was under preparation for another, levels were completed for 9 Tanks, and levels were partly completed for one, and the outlay on these was Rs: 880.-

accidents to works.

6. Although numerous petty repairs were rendered necessary by the heavy rains, yet no serious accident resulted to any irrigation work.-

II. Progress of works

Civil Buildings Major works.

38

1st Constructing an Office for the Superintendent of Devaslanam - Expenditure was Rs: 1733 during the year, total expenditure was Rs: 3,847 against the Estimate of Rs: 5,920. The work was not completed owing to some misunderstanding with Contractors and to difficulty in carting materials to site, as there was a large breach on the Road.-

an outlay of Rs 429 was incurred in

8. Constructing a Granary at Rajasinga:
:mangalam - Outlay was Rs:429 and
Estimate Rs:3070. Work was actually started
in January 1888 and could not be proceeded
with vigorously owing to scarcity of labor. -

9. The following minor works were completed: - Minor works

(1). Constructing a hall in front of the Resi:
:dence building of the 4th widow's quarters
in the Palace at Ramnad. Expenditure
Rs:1,367 Estimate Rs:1370.

(2). Constructing a Granary at Zemally -
outlay Rs:1274, Estimate Rs:1230. -

(3). Improving Estate building at Kamudy,
outlay Rs. 593 against Estimate of Rs:600. -
Some arrears remain to be paid. -

(4). Constructing an enclosure wall with
gate to the west block of Mallanjwari chat:
:tram at Trichuli - Expenditure Rs:206.
Estimate Rs: 223. -

(5). Reconstructing the Dillair Cooli at
Kamudy, outlay was Rs:272 and Estimate Rs:297. -

10. The following works were in progress: -

(1) Constructing a granary at Maravanthai, Expen:
:diture was Rs:62. Estimate Rs:1,815

(2) - do - Divisional Kacheri at Sayalgudy -
Expenditure was Rs:148, Estimate Rs:440. -

(3). - do - Samabandy Kacheri or granary at
Kamudi

38

Kamudi - Expenditure was Rs:456, Estimate
Rs:1,725. -

(4) Improving the Taluq Kacheri Kalagra:
:mam - Expenditure Rs:358, Estimate Rs:900 -

(5) Constructing Stable and cook room
near Travellers Bungalow at Kamudi, outlay
Rs 15, Estimate Rs:47. -

(6). Reconstructing Elephant Shed at Tiru:
:pallani - outlay Rs:82. Estimate Rs:265

Repairs. 11. The following repairs were in
progress during the year; under Devastanam,
but all of them had to be stopped owing to
inspection of Executive Engineer being refused
by Temple authorities: -

38 (1). Repairing Temple at Tirupallani - Expen:
:diture Rs:1221 Estimate Rs:4,585. -

(2) do. Temple at Kamudi, outlay Rs:85
Estimate Rs:5,370

(3) do. do. at Kannangudy, outlay
Rs:332, Estimate Rs:2700

(4) do. do. at Aekalur - outlay Rs:1302
Estimate Rs:2,500. -

Net of 58 works in progress under different
heads under Repair 28 were fully completed

Agricultural Major works 40 12. (1) Improvements to Ramnad large
Tank - Expenditure during the year was
Rs:9,103, from the grant of Rs:10,000 and

total

total expenditure Rs: 13,956 against the Estimate of Rs: 20,040. — Total expenditure Rs. 13,956.

13. (2) Improvements to Rajasingamangalam Tank. Outlay during the year was Rs: 9,077 from the grant of Rs: 10,000 total expenditure Rs: 12,668 against the Estimate of Rs: 18,650. Total expenditure Rs 12,668.

14. (3) Improvements to the Kalari Tank — outlay was Rs: 3094 from the grant of Rs 5000 and total outlay Rs: 5321 against the Estimate of Rs: 17,610. — Total expenditure Rs 5321. The short outlay was due to the failure of the Contractor and to the scarcity of labor. —

40

15. (4) Improvements to the Anaikulam Tank. Expenditure was Rs: 6,367 from the grant of Rs: 8353 and total outlay Rs: 6,367 against the Estimate of Rs: 14,085. Total expenditure Rs 6367

16. (5) Raising and Extending the Gundar Dam. Expenditure during the year was Rs 775 against the Estimate of Rs: 13,600. Expenditure Rs. 775. The work was commenced about the middle of March 1888, on a task work System, as no Contractor would come forward to take up the work.

Minor works

17. The following works were also in progress during the year: —

(1) Constructing a Surplus weir and Sluice in Parayur Tank. Expenditure Rs: 950. Estimate Rs: 2,460. —

(2) Constructing a Surplus weir and Sluice in Kallagudi Tank, outlay Rs: 174. Estimate Rs 1,825

(3) Improvements to Kallicollai Tank. Expenditure Rs: 41. Estimate Rs. 1,090. —

4. Constructing a weir and flush escape in Pullungudy Tank. Outlay Rs: 25, Estimate Rs 1,269. —

(5) Constructing a Sluice in Kamudy Tank. Outlay Rs: 97. Estimate Rs: 235. —

(6) Constructing a Sluice in Kandrangalam Tank, outlay Rs: 112. Estimate Rs: 422. —

(7). Constructing a Sluice in Pullangudy Tank. Outlay Rs: 116. Estimate Rs: 318. —

(8). Constructing a Sluice in Thirupathuvangudy Tank. Outlay Rs: 134. Estimate Rs: 570.

(9). Improving masonry works in Tiruchuli Tank. Outlay Rs: 435. Estimate Rs: 1,755. —

A dry Stone flush escape at Sadayavanthal Tank and revetting the end of bund of flush escape of Pasumbare Tank were also Completed at a Cost of Rs: 195.

41

18. Most of the requisitions of the Estate authorities under this Head, were complied with. Out of 131 works in progress during the year 44 were Completed

19. The change of Officers render it difficult to blame any one in particular for the unsatisfactory progress of work, more

especially

especially as the Executive Engineer has many difficulties to contend with.

First. The large area and want of Roads preventing speedy travelling

Secondly. The apathy of people themselves, There is no doubt a scarcity of labor, but none are willing to come and work on their own irrigation works although there is now a chance of the works being put into fair order, which they have never had before. -

Thirdly - The inefficiency of the Subordinate Staff. There is one Supervisor and four Overseers in the Division, and they all seem to be working in the most unsatisfactory manner. I am about to request the immediate removal of one man and on his case a Separate report will follow. -

Fourthly. The Executive Engineer is put to great personal inconvenience in not having a house or any accommodation, he is therefore working under the disadvantage of never having any personal comfort. The Estate authorities have been asked to erect a temporary house, but whether they will be energetic enough to get anything done seems doubtful. -

Trichinopoly
29th May 88

I. W. Rundall
Superintg Engineer
VI. Circle

P.W.C. No. 518

From

The Supt. Engineer
6 circle.

To.

The Chief Engineer
P.W.D.

No. 106 R.N.
Dated 29/31 } May 1888.
D
Recd

B. No. 2805 W & 10-9-88

Ramnad Zemindary.
Wards Estate Works.

Administration Report
for the year 1887-88.

Vide Cu. 5122

Compile
Cu
4-6-94

II Progress of Works.

I Imperial Military. Works.

Ganjam Dn.

The expenditure under Minor original works was Rs. 132 & repairs Rs. 958.

Vizagapatam Dn.

The expenditure on repairs amounted to Rs. 3,275 against an allotment of Rs. 3,200.

Godavari Eastern Division.

Repairs were carried out to the Military buildings at Samulcotta at an outlay of Rs. 512 against a grant of Rs. 1,250.

II Imperial Civil Buildings. Works.

Roads & Services.

Vizagapatam. The Post Office at Salur was completed and handed over to the Postal Department. The cost in all Rs. 2,057 against an estimate of Rs. 2,000. The expenditure in the year was Rs. 1,746.

Repairs were executed to the Post offices at Vizagapatam & Narsipatnam at a cost of Rs. 274 & to the Telegraph office at Vizagapatam at a cost of Rs. 422.

Godavari Eastern Division.

The telegraph Office at Cocanada was repaired at a cost of Rs. 982, and the telegraph office at Rajahmundry at a cost of Rs. 219. A sum of Rs. 165 was spent on the Post office at Tuni.

The short expenditure was due to the cement manufactures at Madras running short of cement.

III Provincial Civil Buildings.

Ganjam. A building at Russelkonda was purchased for Rs. 1000 as an office for the Deputy Collector. Liabilities amounting to Rs. 154 was expended on the work "condemned cells in the District Jail at Berhampore".

Repairs to the following works were executed during the year.

1 Collectors house at Chatrapur.
2 Police Magazine at Do
3 Sub Divisional office at Russelkonda.
4 Out houses of Collector's Bungalow at Chatrapur.
5 Improvements to the Treasury Room at Chatrapur.

The total cost of repairs was Rs. 2620.

Vizagapatam. The Bungalow & outhouses for the Assistant Supt. of Police Irypore was completed at a cost of Rs. 15,416 against the revised estimate of Rs. 15,350. The outlay during the year was Rs 348. The building was finally handed over to the Police Department on 31st March 1888.

The following works were in progress:—

1. Additional accommodation to the Huzur Treasury at Vizagapatam Estimate Rs. 9,360 including a supplementary estimate of Rs. 490; outlay Rs. 9196; a second supplementary estimate for Rs. 535 was prepared according to the instructions of the Superintending Engr. and has since been sanctioned.
2. The Police Station at Koraput, an incomplete work of the previous year, was

completed with the exception of the Asphalte flooring to the two cells & some other trifling work. The total expenditure was Rs. 4,426 against an estimate of Rs. 3,895, the outlay for the year being Rs. 2,347, against an allotment of Rs. 2,100.

3. Additions and alterations to the Deputy Tahsildar's Office at Palcondah & constructing a second class Police Station house in the compound. The work was completed, but accounts were not fully closed. The estimated cost of the work was Rs. 4920. previous outlay Rs. 1876. Outlay during the year under review Rs. 2769; no allotment was given vide G.O. No. 1797 W. 6-7-87 for this work on account of the Executive Engineer not having applied for funds in proper time.
4. Constructing an Hospital at Gumpuram revised estimate of Rs. 4,020. Expenditure Rs. 2,040: This was expended on the woodwork, building was not commenced as the site was not settled until the end of the year. Sanctioned in G.O. No. 1421 W. 6-2-88.
5. Constructing 34 reserve Police huts at Koraput Estimate Rs. 14,800: expenditure Rupees 1,128.
6. Completing the Sub Magistrate's cutcherry with Sub Jail at Potinglie. an iron roof was purchased for Rs. 3,316. against an allotment of Rs. 3400.
7. Second class Police Station house at Komarada Estimate Rs. 1520. The work was completed at a cost of Rs. 1,506. Rs. 1080 was expended during the year.

8. Additions to the Dy Talukdars office at Bindipatam were completed at a cost of Rs 1125 against an estimate of Rs 1040- outlay during the year Rs 178-

9. An iron safe for the Treasury at Potinghi was made at a cost of Rs 274; outlay during the year Rs 24-

10. Alterations were carried out to the kitchens & latrines of the Lunatic Asylum at Waltair at a cost of Rs 176 against an estimate of Rs 192-

Repairs.

The Lunatic Asylum at Waltair was repaired at a cost of Rs 1525 and six minor works at a cost of Rs 714-

Godavari Eastern Dn.

Additions to Collector's Cutchery Cocanada-

The work was practically finished during the preceding year- The old buildings near the Collector's Cutchery were dismantled and the sale proceeds which amounted to Rs 1272 were credited to the work- The total cost of the new buildings was Rs 36861 against an estimate of Rs 31870-

New Court House Rajahmundry-

Some furniture was purchased at a cost of Rs 1077- The total outlay on the Main building and Subsidiary works amounted to Rs 41938 against an estimate of Rs 42200-

The Sub Magistrate's Cutchery Pittapuram was completed during the year & formally handed over in December 1887- The total cost of the building was Rs 10656 against an estimate of Rs 8983- Rs 1080 was expended

during the year-

The Sub Magistrate's Cutchery at Tuni was completed and handed over to the Sub Magistrate in December 1887- The cost of the building was Rs 9692 against an estimate of Rs 9436- Rs 2436 was expended during the year-

Church at Cocanada-

The outlay to end of the year against the Government grant in aid of Rs 6000 was Rs 5199- Rs 242 was expended during the year.

Water Supply & Improvements to the existing drainage of Central Jail, Rajahmundry-

The improvements were finished with the exception of roof over the well which was in progress in Dowlaishwaram Workshops. The expenditure to end of the year was Rupees 31391 against the Estimate of Rs 33030- Rs 643 was expended during the year-

A Bath room for the principal of the Provincial College Rajahmundry- was completed at a cost of Rs 427 against an estimate of Rs 450-

The Main building of the Dispensary at Bhadrachellam- was completed and the out houses were almost finished- A well was dug to a depth of 33 feet- The outlay during the year was Rs 2470 against the estimate of Rs 4246-

Quarters for the Hospital Assistant P. W. D. at Dowlaishwaram were

completed at a cost of Rs. 610. against the estimate of Rs. 605- Rs. 70 was expended during the year-

The Registrar's office Cocanada. was completed during the year & handed over to the District Registrar- The cost of the building was Rs. 4,802 against Rs. 4700. Rs. 205 was expended during the year.

The Main building-Residence for the Executive Engineer, Dowlaishwaram- was completed- The kitchens & Servants Quarters were provided for in the revised estimate which was submitted for sanction in ~~May~~ 1888- The total expenditure amounted to Rs. 14,927 against the estimate of Rs 12500, a revised estimate has since been submitted, Rs. 5816 was expended during the year-

A well for the Superintending & Executive Engineers houses- was completed during the year at a cost of Rs. 562 against the estimate of Rs. 500-

Major Brockman's house & land at Dowlaishwaram- were purchased during the year for Rs. 2,500-

A portion of the roof of Trinity Church at Rajahmundry was repaired & some minor repairs were carried out to some other buildings.

Godavari Central Division.

The Sub Registrar's Office at Razole was completed & at a cost of Rs 2759 against

the estimate of Rs. 2750 & handed over. Rs. 554 was expended during the year-

Repairs.

The Sub Division office at Gunnaram was repaired-

Godavari Western Division.

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

		Estimate	Outlay
1.	Sub Registrar's office at Pentapad	2710	2694
2	Cook house to Executive Engineer's Bungalow at Chettipett completed	500	536
3	Constructing 1st class Taluq Cutcherry at Tamuku nearly completed. Revised estimate submitted for sanction	21420	23239
4	Do Do at Bhimavaram Do	22650	24307
5	Do Do at Narsapur materials were collected and foundations dug, work stopped for want of sanction to revised estimate submitted for sanction	22900	13496
6	Sub Registrar's office at Tamuku nearly completed	3090	2978
7	Do Do at Ellore- materials being collected wood work being prepared in shops- work not commenced for want of sanction to revised estimate	2540	1858
8	Necessary repairs executed to officers Quarters at Chettipett completed	381	94

IV. Provincial Communications.

Vizagapatam-

New Potinghi Ghat Road- Estimate Rupees

4,56,581. outlay upto end of current year was Rs. 4,48,993- Budget grant for the current year was Rs. 10,000, which was supplemented by Rs. 3,000 vide G Os Nos 878 W. dated 16th March/88 and 939 W dated 22nd March 1888 making a total grant of Rs. 13,000 against which an outlay of Rs. 14,401 was incurred as follows-

	Rs.	
Cost of Iron Girder Bridge of 1 Span 76 ft for Sunki Bridge supplied by India Office and advised by the General Superintendent of P.W. Stores Madras	10,035-	
-Do- of materials collected for Sunki and Rallagedda bridges	4,366	
		14,401

The iron work for the bridge over the Sunki River was landed at Bimlipatam in the month of October, and considerable difficulty and delay was experienced in getting the material carted to Itikavalsa at the foot of the Ghat- Building materials have been collected both at Sunki and Rallagedda- A revised plan has been submitted to the Supt. Engineer and when returned approved work will be commenced-

Road from Potinghi to Koraput Estimate- Rs. 2,81,940- outlay to end of current year was Rs. 1,02,196- The Budget grant for the current year was Rs. 50,000 which was supplemented by Rs. 27,000 vide GO No. 878 W. dated 16th March 1888 making a total grant of Rs. 77,000, against which an outlay of Rs. 71,627 was incurred as follows:-

Cost of Iron Girder Bridges supplied by India Office and advised by General Superintendent of P.W. Stores Madras 1 Span of 76 feet and 2 side spans each 30 feet	Rs. 17,041	
1 -Do- of 60 feet	6965	24,006
Do of formation of road collecting materials &c a		47,621
		71,627

The distance between Potinghi & Koraput along the line selected for the road is 30 miles At the Potinghi end the earthwork has been completed for a distance of 4 miles, of which about 2 miles have been metalled & gravelled-

At the Koraput end earthwork has been completed for 7½ miles, and is in progress for 2¼ miles further; metal has been spread on the road for 2 miles, and almost the full quantity of stone has been collected at the road side for 6 miles-

Five small under tunnels have been built and four more are in progress.

A large quantity of building stone has been collected at most of bridge sites, and also lime stone-

A considerable quantity of road metal has been collected along the line of road where earthwork has not yet been commenced-

The progress made with this work is necessarily slow owing to the great difficulty experienced in procuring even ordinary cooly labor in such an out of way, unhealthy, and thinly populated line of country. It is found impossible to induce any number of low country coolies to remain on the work

so that it is necessary to rely mainly on the hill people who have, hitherto been unaccustomed to such work. No masonry works (other than small 2' culverts) have as yet been undertaken, but it is hoped that two 15' span bridges will be constructed this working season. The iron work for two girder bridges has been received from England.

Surveying road from Koraput to Buster aggregate estimate Rs 4,385 sanctioned in G.O. No 583 W. dated 25th February 1887 and 2647 W. dated 10th October 1887. Outlay during the year was Rs 4,379 against an allotment of Rs 2711 granted in G.O No 3471 W of 19th December 1887.

The Survey was completed as far as Omerkote in 1886-87 a distance of 75 miles from Koraput. In 1887-88 a Survey has been made via Seypore to Barigumma a distance of about 26 miles, and the original Survey has been pushed on from Omerakote to within 15 miles of the frontier of the Central Provinces. The progress of the work is greatly delayed on account of thick jungle and sickness.

Repairs.

Maintenance of Potinghi Ghat Road. Budget grant for the year was Rs 10,000, which was reduced to Rs 6211 vide G.O No 1667 W. of 21st June 1887 Outlay during the year was Rupees 10766.

The Ghat (21 miles) has been maintained throughout the year in good repairs.

Repairs to Potinghi-Koraput fair weather

Road taken over under G.O No 2254 W. of 23rd August 1887. Rs 1400 allotted for its maintenance during the year (in G.O No 3068 W. of 14th November 1887) outlay against this allotment was Rs 674.

When this work was taken over from the Agency it was found that the rough wooden bridges over the numerous streams and Nullahs were in very bad repair. Efforts were made to remedy this state of things, but owing to the difficulty and delay in procuring planks &c not much was done up to close of the official year. The road itself is a Capital fair weather road, but is almost impassable in the rains.

Godavari Eastern Division.

Repairs.

The Navigation works at Dummagudem were maintained at a cost of Rs 8044 during the year. The refixing of the Tail lock lower gate of Dumagudem was in progress at end of the year. The trade is rapidly decreasing only 445 boats passed through the Canal against 650 of the previous year. The canal was closed from 15th March 1887 to 13th June 1887. Since the scouring sluices were ruined in 1886, the head of the channel that leads from above the Anicut to the head lock and scouring sluice has been seriously eroded & in time may endanger the Anicut, an attempt was being made at the end of the year to lessen this danger by throwing a

stone bund across the fallen scouring sluices & to protect the Margin of the channel on the Anicut side with stone-

19

Local Incorporated-

Ganjam Division-

Repairs.

In GO No. 1747 W of 30th June 1887 Rs. 400 were sanctioned for the maintenance of Aska and Surada Road and the amount was fully utilized during the year under review- The expenditure under this head was Rs 413.

Godavari Eastern Division-

Original works.

27

The earthwork of the Kovur Manjair junction Canal was finished at a cost of Rs 55,057 against an estimate of Rs 52,345- Outlay during the year was Rs 2,300-

5 Cattle crossings on the Canal were finished during the year at a cost of Rs 558. Outlay during the year was Rs 265-

The cut stone coping for Aqueduct over Tooliabhaga Drain and fixing iron railings and stanchions were finished during the year. The cost of the Aqueduct was Rs 46,216 against the estimate of Rs 40,000. The excess was principally due to alterations in the original design- Outlay during the year was Rs 501

The Tooliabhaga New Cut was finished during the year under review- Total outlay Rs 8,923 against the estimate of Rs 9,200. Outlay

during the year was Rs 784-

27

The total expenditure up to end of the year on the Kovur Manjair Junction Canal works amounted to Rs 1,43,090 against an estimate of Rs 1,45,525- & the outlay during the year was Rs 3850.

Repairs.

All necessary repairs to the Kovur Manjair Junction Canal were carried out during the year-

Materials were collected for 3 stone stop dams to be constructed on Kovur Manjair Junction Canal in the event of either of the banks breaching, they gave signs of doing so several times during the year-

The improvements of the Sanitary condition of Dowlaishwaram village was transferred from Public Works Depart to Dowlaishwaram Major Union-

Godavari Central Division-

A sum of Rs 1880 was adjusted during the year under review on account of contribution from the Local funds for the following works with reference to GO No. 302 I of 2nd May 1887 & GO No. 387 I of 28th June 1887.

Bolitippa channel Sluice	Rs	250
Mogalikuduru —— Do ——	"	250
Podalada —— Do ——	"	250
Mukkamala Surplus weir-	"	1,000
Chintalapalli, Sompalli & Betamallipudi Savaram channels Sluice	"	130
		1,880

Against this an allotment of Rs 630 was sanctioned in GO No. 387 I of 28-6-87 and the remainder was not allotted-

VII Local Excluded.

30

Ganjam Dn

Mis: Public Improvts

Constructing an Iron Pier at Gopalpur. In GO No. 1908 W. d/ 15 July 1887 Rs. 97104 were allotted for expenditure during the year. The Outlay was Rs 61342 or Rs. 35762 less than the grant. The Short outlay was due to the Pier being not quite completed, in a few details, by the end of March, and the final bill was consequently not paid.

The Pier has been virtually completed during the year under review, and was handed over at the beginning of April, to the Marine Department. An approach to connect the Pier with the road, was sanctioned by the Supr. Engineer from contingencies of the Estimate, and this will be completed in April.

Vizagapatam Dn

Fixing 2nd order Light to the Santapilly Light house. A Lightning Conductor was put up at a cost of Rs. 341.

Repairs.

Repairs to buildings attached to the Light house at Santapalli Estimate Rs. 162. vide GO No. 14 W dated 5th January 1887. Rs. 60 were expended for emergent repairs.

Godavari Eastern Division.

30

Setting up a new fourth order dioptric light at the Hope Island Light House was

8

30

set up

finished during the year at a cost of Rs. 1097 against an estimate of Rs. 954.

Repairs.

Stripping of tar and sand mixture & replastering the terrace roof of Marine Vella completed during the year at a Cost of Rs. 558.

Repairs to Vakalapudi & Hope Island Light houses were in progress at end of the year.

Most of the Division Officers report that Service Books in their Divisions are complete & upto date.

The service books in this Office are complete up to date.

Supr. Engr. Office 1st Circle
Dowlaishwaram
5th June 1888.
Recd 5/6/.

Ex Engr. in ch: 1st Circle.

5 Nellore Public Works Workshops.

This Institution continued to work satisfactorily The outturn during the year was Rs 16,081-7-3 against Rs 13,660 in the preceding year- A profit of Rs 512-4-0 was obtained, and this Sum was credited to Provincial Revenue in the accounts for March 1888-

6. Rates & Prices-

These remained stationery, there being no difference in them over those of last year in all the Divisions except in the Buckingham Canal Division where the rates paid for work were in some cases reduced owing to the use of Madras Portland Cement instead of English Portland Cement-

II Progress of works.

Imperial Military works

Nellore Division-

7- The grant under this head was only under Repairs, and was allotted for payment of house rent to the Military Apothecary in charge of the Hospital at Ongole in the Nellore District- There was a slight excess of Rs 10 over the grant-

Imperial Civil Works

Kistna Eastern Division

Kistna Dist.

8. The work "Construction of a well in the compound of the Post office at Bezwada" was completed during the year at a cost with an expenditure of Rs 105. The estimate amounted to Rs 280 while the Expenditure to Rs 412. The excess is due to pumping water in the well by steam, owing to clay being met with, to enable the work being proceeded with. This is an item not provided for in the Estimate.

9. The Telegraph Office at Bezwada and were Masulipatam have been maintained in good order.

Kistna Western Division

10. Iron bars were fixed to the windows of the Duggirala Post office at a Cost of Rs 12.

11. No repairs have been found necessary for either Postal or Telegraph Buildings.

Nellore Division.

12. Sub Postmasters Quarters ~~&c~~ at Gudur were completed, and the Post office at the same place improved ~~with an outlay~~ of Rs 27.

13. The Post offices at Kistnapatam and Gudur were repaired during the year.

Buckingham Canal Division.

14. The Covelong bar was opened on emergency in May 1887 on the requisition of the Salt Department without an allotment of funds, but the expenditure incurred was defrayed by a contribution from that Department. The estimate amounted to Rs 6,599 while the expenditure was Rs 5,193.

Provincial Civil Buildings

Kistna Eastern Division

15. Repairs to the Collector's Residence at were Masulipatam are in progress. Estimate Rs 14,305. Expenditure Rs 6,313. Out of an allotment of Rs 7,000 only Rs 4,404 were expended for wood work, which however did not reach Masulipatam in time to be put up during the year. Work was also retarded owing to non-receipt of Portland Cement which the Madras Company informed they Could not supply till May 1888.

16. Constructing 2 Head Constables, and 10 Two 10 Constables huts at Bezwada are completed and All masonry work was done, Tiles and bamboos were procured. Roofs of 2 huts put on. Estimate Rs 4,538, ~~expenditure up to date~~ Rs 2,411. The expenditure during the year was Rs 2,003 against a grant of Rs 2,000.

17. Constructing Treasury office in front of

Treasury Room in the Compound of the Gudivada Talug Cutcherry was completed. Rs 1,149 were spent against an estimate of Rs 1,300 ~~and a grant of Rs 1,310.~~

18. The following buildings were repaired during the year.

(1) Kistna Eastern Division office

(2) Superintending Engineers Residence & office

(3) Northern Sub division office.

(4) Bangalow on Col. Orr's Hill at Bezwada

(5) Dutch graves, Tomb stone of Dutch chief French Cemetery.

Kistna Western Division

19. Sub Registrars office at Bapatla - Rs 1,000 were spent against a ~~grant of Rs 1,500~~ in Collecting materials for the

The lapse was due to the difficulty in getting proper bricks.

20 for the Karempudi District. Munsiff's Court house. Materials to the extent of Rs 406 were Collected during the year. The allotment was given late in the year.

21. Trees were planted in the Division office compound. Estimate Rs 115 - and repairs to the Division office were attended to.

13

13

Nellore Division

11

22. The following works were completed during the year.

(1) Improvements to the Sub Collector's Bungalow, Ongole.

(2) Horse stable with coach house at the Division office.

23. The District Jail at Nellore. was in progress.

~~There was an excess of Rupees 1,772 over the grant~~ was exceeded by Rs 1772, owing to of Rs 2,948. ~~This was due to~~ trusses having been ordered in the workshops in anticipation of sanction to additional ~~of more~~ funds, which were, however, not made available.

24. Repairs to the following buildings were attended to.

(1) Police station house at Naidupett.

(2) Assistant Superintendents Bungalow at Ongole

(3) Hill Bungalow at Ongole.

(4) Sub Collector's Bungalow at Ongole.

(5) Talug cutcherry & subsidiary jail at Kundukur.

(6) Collector's Bungalow at Nellore.

(7) Bungalow at Kodavalur.

(8) Christ church, Nellore.

(9) Assistant Superintendents office at Ongole

Provincial Miscellaneous Public Improvements

Buckingham Canal Division

25. Training the banks of the Adyar River was sanctioned for Estimate Rs 17,496. Allotment Rs 2,000 and the expenditure amounted to Rs 1,934. Some groynes were constructed and a diversion channel was cut. Both answered their purpose very well.

Kistna Eastern Division.

26. The repairs to the Sea Dyke at Masulipatam were carried out.

Local Incorporated

Communications

Kistna Eastern Division.

(27) Landing stage at Bezwada. Rs 4,344 were spent against a grant of Rs 3,391. The Sub Division Officer explains that the excess was due to the collection of more material than was necessary. This will be transferred to other works in due course. This work has been completed except the return wall which was recently sanctioned. This is in progress.

28. The ferry road at Bezwada was repaired during the year and the Local Fund Quarries made safe at a cost of Rs 210, against an estimate of Rs 225.

Kistna Western Division

29. The construction of the culvert under the good water channel at Nujampatam, estimate Rs 900, was nearly completed. The expenditure during the year amounted to Rs 453. This work having been undertaken at the request of the Local Fund Department, that Department was asked to place the necessary funds at the disposal of this Dept. through the Examiner of P.W. Accounts and the

Accountant General. The fact of the necessary funds having been placed at the disposal of this Department was, however, not Communicated to this office.

30. The river and canal banks used as roads ~~have as usual been~~ were maintained in proper order at a Cost of Rs 881, against a ~~grant of Rs 1,000~~

Nellore Division

31. The Penner Anicut road way was gravelled ~~during the year~~ and materials to the extent of Rs 122 were Collected for the next years repairs. The total expenditure was Rs 567 against a grant of Rs 600.

28

Local Excluded

Miscellaneous Public Improvements.

Kistna Eastern Division

32. The Salt creek from below the tidal lock at Masulipatam to the village of Gilakaladindi was cleared of silt at a cost of Rs 1,736. ~~The expenditure incurred was~~ against a grant of the same amount.

31

Buckingham canal Division - Nellore

33. The Construction of lines for lascars attached to the Armeghon light house were completed at a Cost of Rs 1,889 against an estimate of Rs 1,890. ~~Expenditure during the year Rs 563.~~ A new lightning conductor in the place of the old one was fixed to the Armeghon light house at a Cost of Rs 190 ~~against an estimate of Rs 90.~~ The excess is due to the charged for the Copper tape by the P. W. Stores

34. The following repairs were carried out.

Nellore Circle

(1) Repairs to Superintendents Quarters and out houses of Armeghon Light hme - Rs 91

(2) Repairing damages to Armeghan Light hme Column ——— Rs 71

cfd 162

13

Bfd — 162

(3) Repairs to the Armeghan light house — Rs 83

(4) Repairing thatched storeshed of the Armeghan Light house — Rs 30

Rs 275

Sydapett Circle.

(5) Repairs to Pulicat Light house — Rs 236

(6) — Do — to Superintendent quarters of — do — Rs 239

Rs 475

The two light houses were efficiently maintained during the year.

Supt. Engineer Office
II Circle
12th June 1888

J Hannen
Superintending Engineer
II Circle

Compd. [illegible]

31

14

II. Progress of Works.

I. — Imperial — Military Works.

Bellary Division

10. The Apothecaries' quarters (double) at Bellary were finally completed and handed over for occupation. The outlay amounted to Rs 7984 against the revised estimate of Rs 7856.

11. The Collar makers and Wheelers shop at Bellary was finally completed during the year. Liabilities not yet fully adjusted. Estimate Rs 5663 and the outlay Rs 5663.

25

12. of a New Gun Shed for the Royal Artillery:— The Foundations were partly excavated and materials collected. Estimate Rs 11,560, outlay Rs 3975.

13. of the Workshops for the Arsenal at Bellary. The Foundation were excavated and concrete to a depth of $1\frac{3}{4}$ feet laid throughout. Materials were collected and work was in good progress. The Expenditure amounted to Rs 6888 against ~~the~~ an allotment of Rs 6858. The estimate ~~is~~ was under revision on account of certain alterations desired by the Military Authorities.

14. The undermentioned minor new works were completed.

		Outlay
1.	Fitting up new gate and raising compound wall of Lock Hospital	600
2.	Store room for the Forge S/1 R.A	147
3.	Cistern to receive drainage European Infantry Barracks	164.
4.	Urinary for Canteen G. 2 R.A	110.
5.	Teakwood gratings for wash house of the European Infantry Barracks	110.

15. The total outlay under Repairs Military was Rs 31,600. 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.

16. The post office at Anantapur was completed and handed over to the Postal Department. The expenditure amounted to Rs 4414 against the estimate of Rs 4051.

17. A compound was built to the Post office at Adony at a cost of Rs 113.

III. Provincial Civil Buildings

Bellary Division

18. The Collector's Office at Anantapur was completed and handed over to the Revenue Department in January 1888. The accounts have not yet been closed as some checks required by the Collector have yet to be supplied. The expenditure on the work amounted to Rs 63427 against the estimate of Rs 64290.

19. Improvements to the Collector's office at Bellary are in progress. Walls of the upper story in both wings raised to full height and door frames fixed. The work was much delayed on account of Contractor's timber being detained for a long time at Guntakal junction Railway Station

20. The superstructure of the Collector's residence at Anantapur was raised to about 6 feet above basement, and door and window frames were fixed. The expenditure amounted to Rs 23,758 against the estimate of Rs 28,190.

21. The Police Huts at Vanavole have been brought up to basement level and

materials collected. The Expenditure amount-ed to Rs 600 against the estimate of Rs 2928. The work was for some time at a stand still owing to sickness amongst work people who deserted the work.

22. The Sub Registrar's Office at Hindu-pur was not put in hand but a sum of Rs 406 was debited to it being the value of wood and bricks transferred to the work from another work amount of estimate is Rs 2910.

23. The undermentioned minor Dew. Works were carried out:-

1. Additional out houses for the Head Assistant Collector's bungalow. Estimate Rs 640, outlay Rs 114.
2. Reroofing a portion of the storeshed at the Engineer's yard. Estimate Rs 1500, outlay Rs 1710.
3. Harbury's Patent privy for the Com-bined Executive Engineer's and Supty. Engineer's office in the Fort. Estimate Rs 185, outlay Rs 179.

24. The Munsiff's Court at Penukondah, the Roman Catholic Chapel, the Roman Catholic Cemetery, the Garrison Church, the Military Cemetary, the Fort Church, the Taluq kutcherry at Penukondah and several other civil buildings were repaired during the year at a total cost of Rs 6960.

25. Eradication of vegetation and minor repairs were attended to on archaeologi-cal buildings at Hampi, Chelukyan temple at Nelagunda and the temple at Heraikadgally - Outlay Rs 120.

Cuddapah Division

26. Of the sanctioned additions and alterations to the District Jail at Cuddapah, 3 male wards, the fourth was also completed except flooring and painting, walls built, gratings and iron doors put up to the 5th. The expen-diture amounted to Rs 23,903 against the revised estimate of Rs 31,900. A revised estimate is under preparation for this work on account of certain additional buildings applied for by the Inspector General of Jails.

27. The Collector's Office at Cuddapah is in progress. Interior arches have been

built and verandah arches commenced. All walls ~~are~~ were built 14 feet high and girders ~~are~~ were being raised. The expenditure amounted to Rs 81731 against ~~the~~ an estimate of Rs 143741.

28. The walls of the Registrar's Office at Cuddapah ~~are~~ were built and beams and joists put up for the roof. Roofing ~~has been~~ was commenced and doors and windows ~~are~~ were ready. Estimate Rs 5192, outlay Rs 3899.

29. Roofing to the Talug Office at Vayalpand has ~~been~~ was completed except the Sub jail. Wooden tower, fixing of doors and windows, painting and wood oiling remaining to complete. Expenditure amounted to Rs 19915 as against ~~the~~ an estimate of Rs 25,700.

30. Materials ~~are~~ were being collected for the Talug Office at Rajampett. The original allotment of Rs 10,000 for this work had to be reduced to Rs 2,700, owing to the prevalence of cholera which prevented the commencement of the work. Work shop bills for Rs 2404-1-10 for wood work have been received and

14

17

will be adjusted in the supplemental accounts for March 1888. The expenditure during the year amounted to Rs 1070. The estimate has been forwarded for sanction.

31. The Talug Office at Sulivendla was completed ~~and completion report sent~~ in January/88. The expenditure amounted to Rs 23610 against ~~the~~ an estimate of Rs 23443.

32. The undermentioned minor new works were carried out during the year:—

	Estimate	Outlay
1. Sub Registrar's office Vayalpand	2435	48
2. — do — at Chitwail	2040	259
3. Improvements to Nandalore Munsiff's Court	992	726

33. The outlay under Repairs to Civil buildings amounted to Rs 725.

Kurnool Division

34. Work on the Talug office at Nandyal ~~is~~ was in progress. The expenditure amounted to Rs 24637 against ~~the sanctioned~~ an estimate of Rs 34676.

35. Nine ~~9~~ Constable huts at Sattikonda

were
are in progress. The outlay during the year amounted to Rs 1298 against the sanc-
-tioned an estimate of Rs 2903.

IV. Provincial Communications.

Under G O No 1496 V dated 3rd June/87, the following roads were re-
-transferred to the charge of the P.W.D

I. Road from Ramandrug to Sondur frontier on the Hospett side - 8 miles.

II. Road from Ramandrug to the junction with the Sondur Gettin-
-hatty road - 13 miles.

A sum of Rs 1370 was spent on towards repairs to these roads against the esti-
-mate of Rs 9653.

H Hadley Colr. E
Superintending Engineer
3rd Circle

Supt.g Engineer's office
3rd Circle
Camp: Bellampalle
28 May 1888

To
The Chief Engineer
P.W.D
Madras

obtainable at this brickfield, that it has been practically decided to abandon it and the years operations have therefore been restricted to actual requirements.

The out turn has been 176877 bricks and the expenditure Rs 5336 or Rs 30/per 1000. This includes a debit of Rs 6 to Land and Kilns. The bricks were charged off at Rs 27 so that there has been a nett loss on the years manufacture of Rs 717 due to the excessive cost of moulding.

16. Accidents.

A peat bog subsided into Marlimmud Reservoir in November and has undoubtedly affected the quality of the water. The subsidence was caused apparently by heavy rain; it might possibly have been foreseen, but under no circumstances could it have been prevented. Its effect on the capacity of the Reservoir is in-
-appreciable.

There were nearly a hundred slips on the Coonoor ghat in the month of December, owing to heavy rain, which have cost Rs 1000 to remove and repair.

No damage was done to life or property.

17. Estate works ~~under the administration of the Court of Wards~~.

The raising of the bank and repairing the sluice of Eramaputty tank were completed ~~as an~~ and the outlay during the ~~year was~~ was Rs 158.

A sum of Rs 1626 was allotted for the Elagiri estate works in ~~G.O. No 8602~~ of 15th March 1888, but the G.O. was received in the Division Office on the 31st March 1888. Consequently there was no expenditure.

18. Service Books. The orders with respect to the due and correct maintenance of the service books of public servants appear to have been carefully attended to generally by the officers of the Public Works Department.

see 9" page in guide for this

II Progress of Works.

(I) Imperial Military

19. Nilgiris. The following works were completed or in progress

progress.

(1) The Bakery at Wellington was almost completed at a cost of Rs 35,088, against an estimate of Rs 35,850. The final completion ~~is still~~ was delayed owing to defects and omissions in the machinery sent out from England. Bread has been baked since March 1887, with flour supplied from Madras, and it is hoped that grinding will commence in May.

(2) Quarters for a Barrack Sergeant at Wellington ~~was~~ were completed at an outlay of Rs 7,100; estimate Rs 7,348. A supplemental estimate of Rs 346 has ~~since~~ been sanctioned and executed.

(3) A new Magazine at Wellington was constructed. Estimate Rs 5,225; Expenditure Rs 4,867.

(4) Minor works. Expenditure Rs 3,902; allotment Rs 3758.

The principal works ~~are:~~ were

Laying pipes from drinking water Cistern to Station Hospital. Outlay Rs 686.

Providing Stands for 250 ammunition boxes. Outlay ——— Rs 435

Making a Flag staff for General Officer Commanding Southern District. outlay ——— Rs 268

Alterations to Wellington Barracks. outlay ——— " 909.

Constructing a masonry drain from Barracks Square to Engineer's office Wellington — " 475.

(5) Repairs were executed to the Lawrence Asylum and the Military Buildings at a cost of Rs 4,567 and Rs 23919, respectively.

24. Coimbatore. ~~The~~ Farrier Sergeant's ~~E. Candy's~~ house at the Remount Depôt Matigiri was purchased for Rs 1,570 ~~sanctioned in G.O. No 2903 M. dated 15th October 1883.~~

The following minor original works were completed during the year.

(1) Adding a linen room and verandah to the Hospital at the Remount Depôt, Hosur. Estimate Rs 216; Outlay Rs 162.

(2) Improvements to the Hay

Hay Shed attached to the Farm Stables at the Remount Depôt. Estimate Rs 1260; outlay Rs 997.

(3) Improvements to Mrs Maddocks' quarters and out houses at Matigiri. Estimate Rs 550; outlay Rs 513.

(4) Constructing 6 water troughs in the Remount Depôt ~~Matigiri~~. Estimate Rs 432, outlay Rs 417.

(5) Rebuilding partition walls between the stall of horse stables at the Remount Depôt, ~~Matigiri~~, Estimate Rs 890, outlay Rs 866.

(6) Constructing two tent lascars' huts at the Mettupolayam Rest house, Estimate Rs 335; outlay Rs 332.

(7) Repairs to Military buildings at the Remount Depôt ~~at Matigiri~~ and to the Rest houses at Podanur & Mettupalayam were carried out at an outlay of Rs 5,331.

24. West Coast. During the year supplemental estimates amounting to Rs 46,34 in connection with the project for accommodating troops at Malapuram were sanctio

for (1) a new third block of barracks with wash house and latrine, (2) improvements to the Canteen and (3) Constructing drains.

The walls of the barracks were raised 10 feet and arch work Commenced; the walls of the wash house were raised 7 feet and the latrine was being roofed. The main walls of the Canteen were raised to full height and roofing of verandah was in progress. 50 feet of open drains and 3 Covered drains were finished. The total grant of Rs 17,000 for the year was utilized.

The following incomplete works of the previous years were Completed.

(1) Improvements to the Elephant shed at Malapuram. Estimate Rs 2060; outlay Rs 1916.

(2) A store room for the Madras Infantry Regiment ~~stationed~~ at Quilon. Estimate Rs 9334; outlay Rs 7,299.

Eighteen minor works were Carried out during the year at a Cost of Rs 8411, the principal ones being:-

(1) Constructing Markers' and Stop butts of the European Infantry at West Hill, Calicut. Estimate Rs 320; outlay Rs 273.

(2) Deepening a well in the Camping ground, Malapuram. Estimate Rs 410; outlay Rs 308.

(3) Improving the well below married quarters, West Hill Calicut. Estimate Rs 376; outlay Rs 362

(4) Improving the Park Sergeants quarters, Cannanore. Estimate Rs 806; outlay Rs 731.

(5) Alterations and Additions to the recreation room and Canteen block of British Infantry at Cannanore. Estimate Rs 1183; outlay Rs 1185.

(6) Reconstructing a well in the Madras Infantry lines, Mangalore. Estimate Rs 467; outlay Rs 225.

(7) The expenditure under Repairs Military amounted to Rs 23,939 against an allotment of Rs 28,369. The apparent short outlay ~~is~~ was mainly due to the expenditure incurred on the Cantonment roads at Quilon by the Chief Engineer Travancore viz: Rs 3937, not having been brought into account. This will however be done in the

~~Supplemental accounts for March 1888.~~
There were also trifling savings on Completed works.

II Imperial Civil works.

24. Coimbatore. The Late Munsiff's Court house at Dharmapuri was converted into a Post Office and Post-master's Quarters at an outlay Rs. 636; Estimate Rs. 652.

Repairs to three Post offices were carried out during the year at a cost of Rs. 102.

25. Nilgiris. Improvements to the Post office at Kotagiri were carried out at a cost of Rs. 790 against an estimate of the same amount.

Rs. 590 were spent on Repairs Postal and Rs. 117 on repairs Telegraph buildings.

26. West Coast. Certain vacant buildings in the Fort at Tellicherry (late district Jail) were converted into a Post office and Post Master's Quarters at an outlay of Rs. 2613 against an estimate of Rs. 2335.

The expenditure in the year under report being Rs. 525.

The windows and doors of the Post office at Vayitri were iron barred at a cost of Rs. 172.

Rs. 497 were spent in repairs to six Postal buildings.

III Provincial Civil Buildings.

27. Nilgiris. Rs. 14,077 were spent on additions and improvements to the Government House at Ootacamund. The principal items of expenditure being:-

Furniture	Rs.	4,671
General Horticultural improvements	"	970
Providing Lightning Conductors	"	1,130
Additions to Coach House	"	4,217
Erecting screen walls to Servants quarters	"	1,081
Piping water supply	"	1,785.

28. Good progress was made during the year on the repairs to the Mount Stuart property and an outlay was incurred of Rs. 9139. The total outlay up to date is Rs. 16,646 against an estimate of Rs. 19,945. The balance on this estimate viz: Rs. 2299 is being rapidly worked out.

29. The combined Bench Magistrates Court at Kotagiri was completed during the year at a cost of Rs. 8620 against an estimate of Rs. 8060. Expenditure during the year Rs. 3,179.

30. The new building for the Breek's Memorial School, for which a revised estimate had to be submitted, was also completed and opened in March, Outlay for the year Rs. 2,276

31. A new Police Station was built at Neduvattam. The Expenditure during the year was Rs. 3,076. Total outlay up to date Rs. 4,031 against an estimate of Rs. 4,110.

32. The Roman Catholic Church at Wellington was completed for the amount of the Government grant. The expenditure during the year was Rs. 16,863. The Total outlay was up to date Rs. 23,863 against an estimate of Rs. 33,576.

33. Other important works were:-

(1) Improving Police Station and Huts at Masinguḍi. Estimate Rs. 3,020. outlay Rs. 2,833.

(2) Repairing Curators House in Government gardens, Ootacamund. Estimate Rs. 2,805, Outlay Rs. 2,823.

(3) Alterations and improvements to the District Jail at Ootacamund for the accommodation of Public Offices and for the Apothecary attached to Army Head Quarters. Estimate Rs. 2,950. Outlay Rs. 2,205.

(4) Rs. 3,000 were spent in collecting materials for the conversion of the old Breek's Memorial School into a Sub Judge's Court.

(5) The outlay on minor works during the year was Rs. 15,140. The following are the principal works:-

Providing Lightning Conductors to

1. St. Stephen's Church, Ootacamund	Rs.	720.
2. Mount Stuart buildings — " —	"	680.
3. Government Office Stone house — "	"	801.
4. Council Chambers — " —	"	365.
5. St. Thomas' Church Ootacamund	"	537.
6. Enclosing Wellington Cemetery with a wire fence	"	660.
7. Extending & improving Police huts at Pykara	"	1,593.
8. — Do — Do — at Kulhutti	"	1,300.
9. Improving the roof of St. Stephen's Church, Ootacamund	"	1,318.

10. Supplying partitions and record racks to Offices on Mountstuart Rs 1117.

11. Widening & raising the clock turret on Stone house hill. " 1011.

12. Renewing roof of Clerks' Offices on — do — " 1456.

34. A sum of Rs 23,841 was spent on Repairs, the Chief items being:-

(1) Repairs to Police lines at Cotacamund Rs 3161.

(2) Repairs to Government House " 10,991.

35. Coimbatore. The following works were completed:-

(1) Constructing a District Forest office at Coimbatore. Estimate Rs 10,110; outlay Rs 9,450.

(2) Constructing close prison at Coimbatore. Estimate Rs 19,582; Expenditure Rs 12,054. The outlay during the year was Rs 337.

The apparent saving is due:-

(1) to Convict labor supplied by the Jail Department free of cost estimated at Rs 6,461.

(2) Purchase of locks in England by the Inspector General of Jails Rs 912.

3. Additions and Alterations to the Quarters of the Superintendent of the Central Jail at Salem. Estimate Rs 3,600; Expenditure Rs 3,727. The outlay during the year was Rs 1,123.

4 Constructing quarters for the Deputy Jailor attached to the Central Jail at Salem. Estimate Rs 3,660. Expenditure Rs 3,691. The outlay during the year was Rs 839.

5. Improvements to the Central Jail at Coimbatore. Estimate Rs 5,745. Expenditure Rs 5,148. The outlay during the year was Rs 674; this is exclusive of Convict labor estimated at Rs 740.

6. Rebuilding a portion of the District Munsiff's Court house at Namkal. Estimate Rs 3,595. Expenditure Rs 3,734. The outlay during the year was Rs 1,220.

7. Purchase and improvements of a building at Tirupatur for a residence for the Assistant Superintendent of Police Estimate Rs 4,768. Expenditure Rs 4,768. The

outlay during the year was Rs 95.

8. Constructing a Sub Registrar's Office at Hosur. Estimate Rs 2970. Expenditure Rs 2871. The outlay during the year was Rs 275.

36. The following work was in progress.

Constructing a Sub Registrars Office at Kollegal. Estimate Rs 2630. Outlay Rs 900.

37. Fifteen minor new works, on which a sum of Rs 5538 was spent, were in progress, of which 10 were completed viz:-

1. Supplying and fitting iron safes.
   1. Coimbatore taluq treasury Rs 410
   2. Palladam — do — do — " — 870
   3. Collegal — do — do — " — 438
   4. Bhavani — do — do — " — 435
   5. Karur — do — do — " — 869
   6. Pattiamangalam do — do — " 881
   7. Uttengaray — do — do — " 243
   8. Yerkad — do — do — " — 226
   9. Improvements to the new Treasury room at Salem — " — 90
   10. Constructing a Sub Registrar's Office and Compound wall at Erichengode Estimate Rs 2,265. Expenditure Rs 2,288. The outlay during the year, Rs 626.

38. A sum of Rs 5,966 was spent on Repairs, the Chief items being:-

1. Repairing the women's ward of the Central Jail, Coimbatore. Outlay during the year. Rs 719.
2. Repairing the Hospital and out houses attached to the Central Jail, Coimbatore. Outlay during the year Rs 2,543.
3. Repairing the out houses attached to the Collector's bungalow at Salem. Outlay during the year Rs 1027.
4. Repairs to the Taluq Cutcherry at Tripatore. Outlay during the year Rs 267.
5. Repairs to the Sub Collector's bungalow at Erode. Outlay during the year Rs 300.

39. West Coast. During the year Supplemental estimates amounting to Rs 13,494 were sanctioned for completing the Law Courts at Calicut bringing the total of the revised estimate to Rs 1,20,200. The only items of the years grant (3188) allowed to lee taken up were, Strengthening the Vakeels' Chambers;

Constructing Surplus drains, and Collecting materials for Sun Shades; The aggregate expenditure up to date being was Rs 1,07,107.

~~10~~ The New Public offices at Ponani were completed except the Latrine, of which the Superstructure to the level of 2 feet above the Crown of arches was finished. The outlay during the year, Rs 14,599.

The main buildings were made over to the respective departments.

~~11~~ The Residence for the Assistant Superintendant of Police at Melapuram, begun in the previous year was completed with the exception of ~~putting up~~ punkhas and mats and deepening the well, ~~all in progress.~~

The year's outlay was Rs 5,378, bringing the total expenditure to Rs 12,600. against an estimate of Rs 13,660.

~~12.~~ The following works were completed.

1. Improving the Government Church, Cochin. Estimate Rs 20,680. outlay Rs 20,177.

2. Sub Registrar's office at Chevayur, Estimate Rs 3,020. Outlay Rs 2923.

3. Sub Registrar's office, Puthur. Estimate Rs 3,120; outlay Rs 3,097.

4. Sub Registrar's office, Udipi. Estimate Rs 3,514; outlay Rs 3,514.

5. Sub Registrar's office Mannar-ghat. Estimate Rs 2,450; outlay Rs 2,338.

6. Additions to the Old Jail buildings in the Fort at Tellicherry to fit them for use as Sub Collector's Cutcherry. Estimate Rs 2,710; outlay Rs 2518.

7. Improvements to the Munsiff's Court at Perpanangadi. Estimate Rs 1534; outlay Rs 1467.

8. Supplemental work to the Conversion of Sweepers' quarters into patients' wards at the Lunatic Asylum, Calicut. Outlay Rs 4135. against an estimate of the same amount.

9. Providing Lightning Conductors to the Turret of the District Munsiff's Court, Tellicherry. Estimate Rs 360. Outlay Rs 341.

10. Improving the Clerks' room, District Munsiff's Court, Tellicherry. Estimate Rs 495. Outlay Rs 544.

11. Improvements to Palghat Treasury room. Estimate Rs 247; outlay Rs. 245.

12. The following works were in progress.

1. Sub Registrar's office at Kodavayur. Estimate Rs 2,940; outlay Rs 1,471.

2. A new Sea Custom's house at Cochin, Estimate Rs 17,940. Outlay Rs 5,791.

3. Additions and improvements to the office of Superintendent of Police at Mangalore, Estimate Rs 10,383, outlay (including previous years expenditure) Rs 8,849.

14. Furniture was designed by the Executive Engineer for the Malapuram Church towards the close of the year and a few items of it ordered from Madras, the rest being made at the Mission Carpentry establishment locally. Rs 383 were expended against an estimate of Rs 600.

15. A sum of Rs 8,025 was spent on Repairs and the following are the principal works being buildings affected

1. Divisional office Calicut. Rs. 510.
2. Lunatic Asylum Calicut. " 1,429.
3. Protestant Church, West Hill Barracks, Calicut " 102.
4. Repairs to roof of the New Sea Customhouse, Calicut " 1400.
5. Repairs to the Roof of St. John's Church at Cannanore " 1,617.
6. Rebuilding the Turret of the District Munsiff's Court at Tellicherry " 308.

IV Provincial. Communications.

16. Nilgiris. Under this head the following works were completed:-

1. Constructing Overseers Rest House at Cherambadi at a total cost of Rs 6,387. The outlay during the year being Rs 3,387.

2. Constructing a wooden bridge at Purlyar on the Kotacamund Mettapalayam road at a total cost of Rs 6,226. The outlay during the year being Rs. 1,999.

3. Constructing a new road on Mountstuart at a total cost of Rs 10,025 against

an estimate of Rs 10,855. The outlay during the year being Rs 1,398.

4. Constructing 8 Cart Stands on the Cotacamund Kullar Road at a Cost of Rs 4721. The outlay during the year, Rs 3579.

47. Two toll houses on the Kullar Gudalur Road were completed and a third nearly so at a cost of Rs 1235, and the mile stones between Cotacamund and Mettupalayam were renewed, the outlay for the year having been Rs 1,094 against an estimate of Rs 1,520.

V. Provincial. Miscellaneous.

Public Improvements.

48. Nilgiris The fencing of the Cotacamund lake with the exception of the portion round the "Cedars" was completed. Outlay Rs 2996.

Rs 31,902 were spent on improving the water supply of Cotacamund, lying north of the Lake.

Rs 1444 were expended on completing the Adam Memorial Fountain.

The raised foot path from Charing Cross to the Market at Cotacamund was completed at a cost of Rs 1,107.

Under Repairs a Sum of Rs 582 was spent on repairing the bund of Marli-Mund Reservoir. The Cotacamund Lake was kept clear of weeds at a cost of Rs 384.

49. West Coast. The revetment for the protection of the town of Ponani undertaken in the previous year was completed with an expenditure of Rs 3963. against an estimate of Rs 4,280. The outlay during the year being Rs 668.

50. The Sea terminations of the groynes 5 in number, near the Light house at Cochin were raised to a uniform level of 6 feet above the high tide level for the protection of the Light house and its neighbourhood. Estimate Rs 4,610; outlay Rs 4,022.

VII Local Excluded.

51. West Coast. The Light Houses at Calicut and Cannanore were

provided with Lightning Conductors at a cost of Rs 255 and of 218 respectively and ~~along~~ with those at Tellicherry and Mangalore, were repaired and painted at an aggregate cost of Rs 935.

52. Materials for a wire fencing round the Light House at Calicut were ordered and the thatched roof of the Watch man's shed improved with tiles at a cost of Rs 319.

53. Rs 52 were spent in repairing the Cranes at Vypeen and Cochin.

32

F. Beatty - Colonel RE,
Superintending Engineer, 4th Circle.
25th May 188

Al

29

Of the short outlay of Rs 852 in South Arcot Division under Provincial Civil Buildings Original works Rs 260 is the saving on works completed and Rs 592 remained unspent as the Rangur-pet Police Station was not completed in the year as expected.

Rs 2000 shown as unspent under Provincial Communication Repairs is the Grant for the Shatiatope Anicut Bridge. It will be adjusted in the Supplemental account for March, expenditure in manufacturing bricks for the Bridge works having been incurred to the extent of that amount. The unexpended balance of Rs 3790 under Miscellaneous Public Improvements Original works is due to Compensation for lands taken up for the embankments of the Cadelam River for the protection of the town of Tirupapuliyur from flood, not having been adjusted by the Revenue Department.

Imperial
Military Buildings

Madras.

Presidency

Works on the Conversion of the Racquet Court in Fort St. George into a Covered Gymnasium was Continued this year and nearly Completed at a cost of Rs 9454.

The Conversion of A. Block Family Quarters Fort St. George into Single men's Barracks &c was also Continued and the work Completed at a cost of Rs 15325 on the Estimate of Rs 15877=
The outlay during the year was Rs 9369.

The Conversion of Sergeants Mess and adjacent godowns into Latrine and Lavatory for the above Barrack was in progress on an Estimate of Rs 3820.

Improvements to the Water Supply of Fort St. George which had been nearly Completed in 1886-87 were Carried out to Completion, and there has been an expenditure of Rs 198 in the year on the works.

The Conversion of Staff Sergeants Quarters into a School house for the Native Infantry Perambore has been in progress and Rs 1265 were spent in the year.

Alterations and improvements to the drains at the Body Guard Lines Madras were Carried out at a Cost of Rs 1286.

A Verandah was Constructed to the Officers Mess Fort St. George at a cost of Rs 362 and Servants Quarters were built to each of the Commissariat Sub. Conductors Quarters at the Ordnance Lines Madras at an outlay of Rs 1048

Bangalore

The additions to the Wash houses at the Parade Barracks Bangalore were continued and the works were Completed at an outlay of Rs 11737 on the Estimate of Rs 12500. The year's expenditure has been Rs 1017-

The Construction of Public Buildings for a Regiment of Native Infantry at the Arsal Lines was Continued and works Completed. The outlay has been

Rs

Rs 21903 on an Estimate of Rs 21636. The
years expenditure was Rs 6715.

The Construction of Station
Butchers Quarters was in progress on an
Estimate of Rs 3860. The Work has been almost
Completed at an outlay of Rs 2120.

Twenty five Minor New Works
at the Presidency and twenty three at
Bangalore were Commenced and Completed
during the year at a Cost of Rupees 12,173

136 Repair works at the
Presidency and 185 at Bangalore were
Carried out during the year. Payments
were made to the Madras Municipality of
Rs 15284 on account of House, Rates and
Lighting taxes on Government Military
Buildings outside Fort St. George and of
Rs 6000 on account of maintenance repairs
of the Esplanade and Fort Beach Roads.

At Bangalore Rs 1200 and Rs 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.

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 Rs 94521 at the Presidency and
Rs 66,488 at Bangalore.

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

—Madras—

Repairing the walls and floors of the
Military Prison Fort St. George. Estimate
Rs 2845. Expenditure Rs 2665.

General repairs to the Perambore
Native Infantry Lines. Estimate Rs 5540.
Expenditure Rs 5656.

Thorough repairs to the Officers
Mess House Fort St. George. Estimate Rs 4945
Expenditure Rs 2154.

Repairing Ceilings of the Armoury
Grand Arsenal Fort St. George Estimate
Rs 3100 Expenditure Rs 1649.

Making thorough repairs to
the

the Government Granary of the Commissa-
-riat Department

Estimate Rupees 8800.

Expenditure — " 1105 —

Plastering with Cement the exterior
face of the Enceinte of Fort St. George
from North to St. Georges Gate

Estimate Rs 2970 —

Expenditure Rs 2679 —

Bangalore.

Painting doors and windows of the
Parade Barracks, Bangalore Estimate Rs 7280
Expenditure Rs 5871.

Whitewashing the Buildings in
Parade Barracks Estimate Rs 2990 Expenditure
Rupees 2830.

Whitewashing and wood oiling
all buildings at the Agaram Cavalry
Barracks Estimate Rs 5090 Expenditure
Rs 4541

Substituting Basel Mission Tile
roof for ordinary tiled roof to one single
and one double row of stalls at the
Agaram Cavalry Barracks Estimate Rs 3645
Expenditure Rupees 4371.

Whitewashing

Whitewashing and wood oiling
the Agaram R.A. Barracks Estimate
Rs 3710 Expenditure Rs 3087 —

Chengleput.

A Coffee shop with Kitchen
for the Upper storey Barracks at St.
Thomas Mount, Commenced in 1886-87,
was completed this year at an outlay
of Rs 4704 on an Estimate of Rs 6690.

Eleven Cook houses attached
to the Family Quarters of the P/1st and
Q/1st Royal Artillery Mount were taken
down and rebuilt on an Estimate of
Rs 2970 and the work was completed
at an outlay of Rs 2986.

Alterations and Improvements
to the Barrel Racks at the Reserve
Powder Magazine Mount were
Commenced and an expenditure of
Rs 882 was incurred. The work had
to be deferred pending removal of the
Powder ~~of~~ by the Military Department

Seven Minor New Works were
completed

Completed at a Cost of Rs 1601

Repairs to 15 Buildings and Several minor repairs Costing less than Rs 500 each were Carried out at a total expenditure of Rs 17206, and the Roads in the Cantonments of Mount, Pallaveram and Ponamallee were maintained at an outlay of Rs 3814. The total expenditure under Repairs, including Barrack Masters Petty repairs, Compensation for Quarters &c has been Rs 28316.

The more important of the repairs were.

1. Repairing the roof of 11 Barracks at Pallaveram Estimate Rs 1025. Expenditure Rs 979-

2. Repairing Station Hospital and its out houses Ponamallee. Estimate Rs 910 Expenditure Rs 818.

3. Repairing the new Sheds in the Family Quarters No 20 and 24 of 2/1st R.A. Mount Estimate Rs 915— Expenditure Rs 873.

4. Repairing the S.S. Lines Stables at Mount Estimate Rs 1340 Expenditure Rs 1254.

5. Repairing. white and Colorwashing West Barracks and out houses of 2d Brigade R.B. Mount. Estimate Rs 3880 Expenditure Rs 2279.

6. Repairing white and Colorwashing No 66 Female Hospital Mount Estimate Rs 1135 Expenditure Rs 1054—

North Arcot Division—

No Major works were Carried out in the year.

Two Minor New Works were Carried out at a total Cost of Rs 225.

A sum of Rs 2438 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 173 were Spent on account of rent of Quarters of the Sergeant

Sergeant Instructor of the South Indian Railway Volunteer Rifle Corps.

—Imperial Other Services—

Presidency.

No works of any importance was Carried out, a few small works were undertaken Viz.

Adding a room to the Imperial Post Office at Guntur. Rupees 142 spent on an Estimate of Rs 148.

Improvements to the Mysore Post Office Rs 850 were spent on an Estimate of Rs 1195.

The following repairs were Carried out.

1. Whitewashing and repairing the Telegraph Office Bangalore. Estimate Rs 320 Expenditure Rs 492.

2. General repairs to the Telegraph Stores Black Town Madras Estimate Rs 704. Expenditure Rs 639.

3. Whitewashing the General Post Office Bangalore. Est. Rs 274 Expenditure Rs 244.

Under

North Arcot

Under Original Works the extension of the present Post Office at Chittur was carried out. The expenditure has been Rupees 353.

A sum of Rupees 291 was spent on Completing the repairs to the Post Masters Quarters in Vellore Fort, and on repairs &c to the stipend Pay office building in the Vellore Fort to adapt it for the use of the Combined Post and Telegraph Office.

South Arcot

Quarters for the Deputy Post Master at Tindivanam were Commenced and completed at an outlay of Rs 579. on an Estimate of Rs 630.

Rupees 164 were spent on Repairs to the Office of the Superintendent of Post Offices Cuddalore Division.

—Provincial—

—Civil Buildings—

Presidency—Madras—

A Racquet Court and Swimming Bath were Constructed at Government

House

House Madras at a cost of Rs 2434 and 3351 respectively on Estimate of Rs 2700 and Rs 4100

An Upper Storey was built and improvements were carried out to the Aide-de-Camp's Quarters at Government House Madras at a cost of Rs 12901 on an Estimate of Rs 13100.

The Construction of City Reserve Police Lines at Pudupet Commenced last year was continued and carried out to Completion. The outlay during the year was Rs 21500. The total outlay has been Rs 26961 on the Estimate of Rs 24785.

The Construction of an Upper Storey to the Office of the Deputy Commissioner of Police was Completed, the year's outlay was Rs 7321 and the total expenditure Rs 9859 on an Estimate of Rs 10290.

At the Medical College Madras the Construction of a Lecture Theatre Hall, Estimate Rs 7170, and of a Dissecting Shed, Estimate Rs 6005, were Commenced and Completed during the year. The expenditure has been Rs 6620 and Rs 6459.

At the Madras Penitentiary, a New range to the close Prison Cells, Estimate Rs 11200, a new workshed, Estimate Rs 3200, and Quarters for two Hospital Assistants, Estimate Rs 5774, incomplete works were Completed during the year at a total outlay of Rs 9147, Rs 2892 and Rs 5201.

The new Gate to the St. Mary's Cemetery Madras Commenced last year, was Completed at a total cost of Rs 6136 on the Estimate of Rs 6285. The year's expenditure has been Rs 2834

There has been an expenditure of Rs 409 on account of new seats provided last year for the Church of St. Mathias, at Vepery.

The Ornamental Railings of St. George's Cathedral Commenced last year were completed at an outlay of Rs 2486 on the Estimate of Rs 2711.

A sum of Rs 5020 was spent on Furniture for Government Houses at Madras

Madras Grundy and Cotacamund.

32 minor new works were Carried out at a Cost of Rs 7975.

Rs 936 were paid on account of Compensation for Sittings provided for Roman Catholic British Soldiers in the Cathedral at Madras during 1885-86 and Rs 333 on account of Compensation for Sittings provided for 6 to British Soldiers and their families in the Wesleyan Chapel at Bangalore during 1886-87.

127 Repair works at Madras and 15 in Bangalore were Carried out.

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

The following were the principal repair works Carried out in Madras.

Repairs to Banqueting Hall and Marine Villa with out houses. Estimate Rs 5700. Outlay Rs 5710.

Plastering with Cement the outside of the Government Secretariat Office Fort St George Estimate Rs 11070 Outlay Rs 7362.

Repairing Tombs in St. Marys Cemetery Estimate Rs 2685 Outlay Rs 2352.

General repairs to the Civil Orphan Asylum Buildings Estimate Rs 16540 outlay Rs 7224.

General repairs to the P. W. Workshops and Stores Estimate Rs 9292 Outlay Rs 4499—

General repairs to the General Hospital Madras Estimate Rs 3025 Outlay Rs 2886—

Chingleput.

A Lightning Conductor to the Agricultural College at Saidapet was Constructed at a cost of Rs 2240. The whole expenditure on the College, the Upper story of which (except towers) had been completed at the end of 1886-87. has been Rs 18336. to end of the year.

Improvements to the Laboratory of the Agricultural College were not Carried out as originally sanctioned owing to a proposal from the Director of Public Instruction to Construct an Upper story this involved a deviation of the sanctioned improvements.

A plan and Estimate of Rs 9995 for the proposed Upper story was sent to the

to Director of Public Instruction on the 28 March 1888.

The Construction of Waiting and Retiring rooms for the Students of the Agricultural College was in progress on an Estimate of Rs 3500, and Rs 2556 were spent during the year.

6 Minor New works were Completed at a total cost of ~~Rs 2986~~ 2988.

New Buildings at Government House Trincomalee Park and other Buildings, Churches &c, have been repaired at a total outlay of Rs 15,586.

North Arcot

The Sub-Magistrates Cutcherry with Out houses at Arkonam Commenced in 1886-87 was Completed this year. The expenditure has been Rs 14733 on the Estimate of Rs 14285. The year's outlay has been Rs 6547. The excess of Rs 488 over the Estimate was spent on certain additional Items found necessary during the execution of the work.

Improvements to the Sub-Magistrates Office at Punganoor also Commenced in

16

in 1886-87. were Completed this year. The expenditure has been Rs 3799 on the Estimate of Rs 4480; the Saving being due to an existing Sub-jail being utilized, instead of building a new sub-jail provided for in the Estimate.

Four Minor New works were in progress of which three were Completed two of the works were Commenced last year The year's expenditure has been Rs 2641.

Seven Repair works were Carried out at a Cost of Rs 1916.

South Arcot.

The Sub Registrars Office at Villupuram Commenced in 1886-87 was Completed at a Cost of Rs 2460 on an Estimate of Rs 3244.

Four petty Minor New works Costing less than Rs 500 each were in progress of which two were Completed.

The total outlay incurred on these was Rs 1283.

Repair works were Carried out at

16

at an outlay of Rs 943 to buildings for which rent is Collected by the P. Tr. Department besides other petty repairs.

— Provincial —

— Communications —

Presidency —

The widening of the Elephant Gate Bridge Estimate Rs 20200 was Commenced in December 1887, and Considering the short time the work was put in hand in the year, the progress made was all that could be desired as the work was almost completed by the end of the year. The year's outlay has been Rs 9506 out of an allotment of Rs 10000.

A sum of Rs 9058 was paid to the Madras Municipality for the mainte-nance of the roads leading from the Fort to the Mount and Poonamallee, Rs 3381 and Rs 1062 were also paid to the Municipality for repairing the structures of bridges over the Cooum and the Buckingham Canal.

Rs 152 was expended in clearing silt from Channel leading from the Canal to the Government Lime Kilns.

38

South Arcot.

The piers of arches of the Bridge over the Shatratope Anicut were raised to the Anicut crest level. The Manufacture of bricks was put in hand. There was a grant of Rs 2000 given for this work in G.O. No. 3408 Tr. dated 14 December 1887 —

22

Provincial —

— Miscellaneous Public Improvements —

Presidency —

Rupees 834 were spent on the Conservancy of the River Cooum, and Rs 601 in closing the Cooum bar.

25

Chingleput —

On the experimental Artesian boring in the Kortellier basin, work was Commenced at the end of June 1886 and the boring was Carried out to a depth of 153 feet in December 1886. An Estimate for Carrying the boring to a depth of 200 feet was then sanctioned which depth was reached at the end of 1886.87. Further boring

boring down to a depth of 300 feet was sanctioned in G.O. No. 1701 Fr of 24 June 1887 — this depth was reached in August 1887 when it was considered desirable to continue the boring to a depth of 420 feet, for which the Estimate amounting to Rs 8745 was sanctioned in G.O. No. 3147 Fr of 21st November 1887. At the end of 1887-88 the depth ~~was~~ of 371 feet was reached. the soil passed through is still alluvial and Mr. De Closets expects that some other kind of stratum may be reached before long. The total expenditure incurred to end of 1887-88 amounts to Rs 6027.

South Arcot.

The embankment of the Gaddilum river for the protection of the town of Tirupapuliyur from floods, which was nearly ~~completed~~ finished in 1886-87 was ~~fully~~ completed ~~this year~~ and the drainage sluice in it ~~is~~ was almost finished. The ~~year's~~ outlay ~~has been~~ was Rs 790 — ~~the total outlay has been~~ Rs 6812 on the Estimate of Rs 8550.

— Special —

Local Excluded

— Special —

— Civil Buildings —

39

Presidency —

An Estimate of Rs 1020 was sanctioned for repairs to the Light House Madras. but the grant was made too late in the year 21st March, to admit of any work being done.

Chingleput —

The Light House at the seven Pagodas ~~a work of last year has been~~ was in progress on an Estimate of Rs 8165 ~~sanctioned in G.O. No. 2708 Fr of 15 October 1886~~

The Work consists of

1. Constructing a stone platform for a fourth order light
2. Constructions of Superintendents Quarters —
3. Do — Lascars Lines —
4. Do — two Sentry boxes —

the expenditure to the end of the year ~~has been~~ was Rs 6253 — ~~the year's expenditure has been Rs 2072~~ and the work has ~~been~~ was nearly completed.

Communications —

South Arcot

Local Incorporated

The roads along the Coleroon bank

bank, Veeranam Tank bank and Perumaul Tank bank were kept in repair at an outlay of Rs 1599, 1283 and 290.

Sand was collected for the road along Khan Saibs Canal bank at a cost an outlay of Rs 349.

The Earth work was executed to give the full top width of 8 feet to the road passing over the Perumukal Tank bund at an outlay of Rs 274.

— Contributions —

Presidency —

Rupees 400 were contributed by the Secretary to the People's Park Committee towards the Construction of a lodge in the Gymnasium enclosure Peoples Park which was completed at a cost of Rs 755.

The repairs to the Military Female Orphan Asylum Madras for which a sum of Rs 3422. 6. 5 was received during March 1887 were completed. The outlay during the year was Rs 3008.

P. W. Stores.

Mr Joyce has been in charge of the P. W. Stores during the year. The whole

Consulting Architect — the provision of an

40

Intermediate floor in the Library of the Presidency College was commenced on an

Sanctioned Estimate of	Rs 7,651
Expenditure	" 827
Balance to be expended	Rs 6,824

and Rs 827 were expended.

17

The foundations for the columns to support the floor have been were laid and the columns were indented for through the India office.

Alterations & additions to the Ameer Mahal were carried out at a cost of

Sanctioned Estimate	Rs 3983
Expenditure	" 3760
Difference saving	Rs 223

These additions were completed in February 1888.

Minor Original Works

Rupees 5196 were spent on twenty nine minor works under this head the most important of which consisted in renewing the ornamental parapet on the North side

of the Revenue Board office with stone, Providing a second boat made of wood for the floating Latrine, and Constructing a shed at the School of Arts.

Provincial Repairs — Civil Buildings

Rupees 15,150 were spent under this head for the annual & general repairs to the buildings in charge of this Division. The amount also includes the Charges for conservancy of the floating & Senate House Latrines and Municipal taxes on certain P. W. Buildings.

Provincial
Miscellaneous Public Improvements.
Major Works

Extending the South Beach Marina from opposite Elliots Road to St. Thome ——— Rs 12,353

Expenditure during 1887-88. Rs 1466.

Amount previously expended " 7837. 9303

Difference saving Rs 3050.

This work was completed in October 1887 and affords an uninterrupted promenade from the Kuum River to St. Thome, a distance of over 2 miles, Continuing the stone dwarf wall along the western side of the Beach Road from Pycroft's Road to the burning ground

Sanctioned Estimate ——— Rs 11,834

Expenditure during 1887-88. Rs 818

Amount previously expended " 9334 " 10,152

Difference Saving Rupees 1682

This work was completed in October 1887.

Watering plants &c in the Chepak Park

Sanctioned Estimate ——— Rs 3,444

Expenditure during 1887-88. Rs 232

amount previously expended " 3201 " 3433

Difference saving Rupees 11

Minor Works

Rupees 556 was spent under this head which chiefly consisted in the levelling of the old Fishing village & Sewage farm sites on the South Beach

Local Excluded.

Original Works.

Rupees 381 were expended under this head in fixing a new lightning conductor and repairing the other conductors of the Senate House, and certain additions to the Senate House Latrine.

Repairs

Rupees 2808 were spent under this head in repairing the Senate House.

Manufactures

Rupees 31,298 were expended at the Government Brickfields in the manufacture of bricks and tiles and Rupees 422 in making experiments for producing decorative porcelain

Tools & plant

Rupees 1279 were expended on new supplies, tools & plant, a great portion of this

Trichinopoly. 10. Construction of Public Buildings for a Regiment of Native Infantry - The magazine and cells, which were incomplete at the close of the preceding year, have been completed at an outlay of Rs: 2,495 against a grant of Rs: 2,340. The whole work was completed at a cost of Rs: 20,310 against the Estimate of Rs: 20,155. -

Rupees 149 in providing Ammunition boxes, and Rs: 3835 in maintaining Cantonment Roads and repairing Military Buildings were spent. -

11. In the Tanjore, Negapatam, Madura and Tinnevelly Divisions Rs: 1,068 were spent in paying Compensation for quarters.

II. Imperial. Civil Works.

Trichinopoly. 12. Improvements to the combined Post Office at Trichinopoly Fort and to the Post Office at Musiri have been carried out at an outlay of Rs: 343. -

Tanjore. 13. The Addition of a Ball room and Verandah to the Post Office at Tanjore was completed at a cost of Rs: 260, and the Extension of the Post Office at Kumbaconam for accommodation of Telegraph Office was completed at a cost of Rs: 1,028, of which Rs 874 were

were Spent during the preceding Year. The Post Office at Tanjore was also repaired at an outlay of Rs: 110.-

14. Repairs to the Post Offices at Pattukolla and Mimmesel were Completed at a cost of Rs: 558. — Negapatam.

15. Rupees 634 were Spent in Completing the new Post Office at Pullagunder, on which Rs: 939 were laid out in the preceding Year against the Estimate of Rs: 1340. A Police Station house at Vadasunder was converted into a Post Office at an outlay of Rs: 75. The British Post Office at Peermede and Postmasters quarters at Periakalaw were repaired at a cost of Rs 83.- — Madura

16. Telegraph Office at Tuticorin was repaired at a cost of Rs: 468, and Post Offices at Tenkarai, Sattur, Nagarcoil, Vasudevanallur, and Srivaikuntham were repaired at an outlay of Rs: 826.- — Tinnevelly

III. Provincial - Civil Buildings.

17. Construction of the District Jail at Trichinopoly made during the Year very Satisfactory progress. - Block No: 3A (36 cells) Superstructure, arches and Concrete to Spandrils were completed. No. 3.B. (22. cells) Superstructure raised to an average of 3 ft:; Entrance gate, Superstructure raised to 3 ft:; Iron railings fixed, two gates fixed in position, and cut stone work in the Side of — Trichinopoly

of gate in progress. Expenditure during the Year Rs: 18,938, against the final grant of Rs: 18,594, and total outlay Rs: 70,405 against the revised Estimate of Rs: 85,244.-

18. Quarters for the European Chief Constable, Central Jail, Trichinopoly, which was nearly Completed. Expenditure Rs: 1,695, Estimate Rs: 1860.-

19. A Compound wall for the District Munsiffs Court at Kulittalai was Completed at a Cost of Rs: 1,455, against an grant and Estimate, Rs: 1,450.-

20. A Compound wall and Latrine for District Munsiffs Court at Arijalur - Work Commenced but not finished owing to failure of Contractor. Expenditure Rs: 388- Estimate Rs: 1,230.-

21. Rupees 465 were spent in completing certain repairs to the central Jail on which Rs: 2,745 were laid out in the preceding Year against an Estimate of Rs: 3,470.-

22. The Combined Court House for District Munsiffs of Kumbaconam and Valangiman was in good progress. Lower Story was completed with the exception of plastering inside work, and the upper Story was in rapid progress. Expenditure Rs: 24,470 of which Rs: 7,608 were Spent in the preceding Year. Estimate Rs: — Tanjore.

Rs: 34,342. -

23. First class Taluq Cutcheri at Kumba=
=conam. No work was done owing to the site
of the old building not having been vacated
by the Judicial Department, but some material
were collected. Expenditure Rs: 3962 in ad=
=dition to Rs: 249 spent in the preceding year;
Estimate Rs: 19,240. -

24. Improvements to the Taluq Cutcheri
at Mayaveram was in progress during the
year, but the work was for a long time de=
=layed, partly by the failure of the South
Indian Railway to supply trucks for con=
=veying timber from Negapatam, and partly
by the obstruction of the Municipality to the
construction of the Verandah; subsequently when
masonry work was carried out to the extent
of the reduced grant, the Sub Division
Officer failed to send in the Bill in time
for payment. Hence Expenditure of Rs: 4907
from a grant of Rs: 7,000. Estimate Rs: 11,680. -

25. The Police Station House at Kumbaconam
was extended at a cost of Rs: 2748 against
an Estimate of Rs: 2,700. -

26. A building for the Police Office
at Tanjore was purchased at a cost of Rs: 5,750. -

27. The construction of a Latrine with 5 seats
of

of Horbury's pattern and Compound wall to
the Police Station house at Tanjore was
nearly completed. Expenditure Rs: 552. Esti=
=mate Rs: 700.

28. Fixing Iron gratings and doors to
the Office of the Superintendent, District
Jail, Tanjore was completed at a cost of Rs: 411-
Estimate Rs: 432. -

29. On account of Land Compensa=
=tion for Police huts at Nandalar and Vela=
=gudy Rs: 294 were paid, but works were
not Commenced for want of grants. -

30. On repairs to the District Court, Taluq
Cutcheri at Shiyali and Sub jail and Latrine
at Nannilam. Rs: 3862 were spent.

Negapatam 31. Alterations to the Saint Josephs
College buildings at Negapatam. The
buildings were purchased in the preceding
year for Rs: 30,000, and Estimates amounting
to Rs: 22,490 were sanctioned during the year
for alterations to adapt the buildings to
accommodation of the several public offices.
The following Improvements were completed.
(1) Improvements to the rooms allotted for the Dis=
=trict Munsiff. -
(2) — do — for Office of Assistant Superintendent of
Police. -

(3) Improvements to the Executive Engineers Office
(4) ___ do ___ Sub Judge's Court.
(5) ___ do ___ Sub Magistrate's Office
(6) ___ do ___ Sub Registrar's Office.
(7) ___ do ___ to Tems Sheds.

The following alterations were in progress:-
(1). Office for Assistant Commissioner Salt and Abkari Revenue.
(2) Police Station.
(3) Office for Head Assistant Collector
(4). Gate and Compound wall
(5) General improvements to Main building

The Expenditure during the year was Rs: 7,879 against a grant of Rs: 8000 total expenditure Rs: 37,879. against the total Estimate Rs: 52,490.-

32. District Munsiff's Court at Tiruvalur.- On the collection of Materials Rs: 4061 were laid out from the grant of Rs 5000, total Expenditure being Rs: 5133, against the Estimate Rs: 12,970

33. Improvements to the District Munsiff's Court at Mannargudi were in progress. Expenditure Rs: 3959 from a grant of Rs: 4910- Estimate Rs: 5010.-

34. The Government cemetery at Negapatam was extended at a cost of Rs: 1317, (of which Rs: 459 were spent in the preceding year) against the Estimate of Rs: 1,200.-

35. The alteration of the Executive Engineers Office at Kadambady into a dwelling house was completed, with the exception of fencing the compound, leaving a liability of Rs: 78 to be settled in 1888-89. Expenditure Rs: 1741, Estimate Rs: 1950.-

36. Rupees 654 were spent on the repair of Mannargudi Sub jail and Compound of Saint Joseph's College Buildings and for Municipal tax for the College buildings and old P.W.D. Office at Kadambady and Mannargudi.-

Madura

37. Tirumal Naicks Palace at Madura

The total Sanction for the restoration of this building and its adaptation for public Offices amounts to Rs: 3,35,109 and the Expenditure up to 31st March 1887 was Rs 3,11,469. The works in progress, or completed during the year were on the undermentioned Estimates:-

(a) Completing restoration ___ Rs: 1,01,500.-
(b) Locating the Collectorate ___ Rs: 44,640
(c) Providing wooden record racks to the District Court. — Rs: 2,830

(d)

(d). Providing Lightning Conductor in dome of South East turret. _____ Rs: 294.

Of these the first was completed at an outlay of Rs: 1,04,217, of which Rs: 1,02,502, were spent up to the preceding year and the rest were almost completed. Outlay during the year Rs 21,976, and total outlay on the Palace works to the end of 1887-88 was Rs: 3,33,445.-

38. The following works were completed during the year: -

(1). Sub Magistrate's Kacheri at Madura. Expenditure Rs: 4,492 in addition to Rs: 14,889 spent up to the preceding year Estt Rs: 17,889.-

(2). A second class Police Station house and 1 Head and 5 Constables huts at Kapur - Expenditure Rs: 2691 in addition to Rs. 2086, up to 1886-87 - Estimate Rs: 4,850.-

(3). A second class Station House and 1 Head and 5 Constables huts at Ammayanaicka: = nur - Total expenditure Rs: 3,630, of which Rs: 570 being of the preceding year, Estimate Rs: 3850.

(4). Improving Deputy Tahsildar's Office at Tiru: = chuli. Expenditure Rs: 4136 of which Rs 1000 being of 1886-87 - Estimate Rs: 4240.-

(5) Repairs to the Taluq Kacheri at Dindigal - Expenditure Rs 3319, of which Rs: 1155 were spent

18

spent in the preceding year. Estimate Rs 3,200.

(6). Improving the District Jail at Madura - Ex: = penditure Rs: 2,865 - Estimate Rs: 2,820.-

39. The following buildings were in pro: = gress: -

(1). Sub Registrar's Office at Tirumangalam. Expenditure Rs: 2405, including Rs: 950 spent in the preceding year. Work completed with the exception of a small quantity of pointing, wood oiling and flooring. Esti: = mate Rs: 2864.-

(2) A third class Police Station house and one Head and 5 Constables huts at Veera: = pandy - Expenditure Rs: 1955 - Estimate Rs: 2930.- Huts were completed & materials for Station Collected.-

(3). A third class Station House and 1 Head and 5. Constables huts at Samianallur. Ex: = penditure Rs: 2041. Estimate Rs: 2690 - Walls of the Station House and huts nearly finished.

4. District Jail at Madura - Providing iron railing to the roof Ventilators of Blocks and removing and renewing the existing Palisades - Expenditure Rs: 369 - Estimate Rs: 4482. From this Estimate the portion for making good and

and plastering the coping of the Compound wall was carried out on emergency, on the requisition of the Inspector General of Jails.—

(5). Sub Division Officers Bungalow at Uthamapaliem was almost completed. Expenditure Rs: 1,466. Estimate Rs: 1,500.—

40. Rupees 1,059 were spent in maintaining the garden and improving the earth connection of the Lightning Conductor in Tirumal Naick's Palace at Madura, in repairing P.W. Office building and Sub Collector's Bungalow at Dindigal, Storeshed at Periakulam, Taluq Catcheri at Meyluz, Deputy Tahsildars Catcheri and Sub Registrar's Office at Uthamapaliem, and in paying municipal tax for the Government buildings at Dindigal.

41. ~~Constructing~~ a new record room ~~to~~ Tinnevelly and ~~improving~~ improvements to the District Court House at Kockarakulam. ~~Work~~ were completed according to the Original Estimate. Expenditure Rs. 16,893, including Rs: 12,183 spent up to 1886-87. Revised Estimate Rs: 21,030.

42. The following Minor Works were completed during the year:—

(1) Additions and alterations to the Huzur Treasury at Kokarakulam. Expenditure Rs 2,017 Estimate Rs: 2070.

(2).

18

(2). Sub Registrar's Office at Radapuram. Expenditure Rs: 2,202, including Rs: 100 spent in the preceding year. Estimate Rs: 2,330.—

(3) Improving the Sub Magistrate's Office at Tuticorin. Expenditure Rs: 1,536, Estimate Rs: 1,580.—

(4.) Strong room for Tinnevelly Taluq Catcheri. Expenditure Rs: 290, Estimate Rs 290.

(5) Compound wall to the Police Station House at Singikulam. Expenditure Rs 260, Estimate Rs: 260.

43. A Sum of Rs: 1,612 was spent in repairing the Executive Engineer's Office at Palamcotta, (Rs: 382) in reconstructing strong room of the Huzur Treasury at Kockarakulam (Rs: 800) and in repair of two other buildings.—

IV. Provincial Communications.

Madura

44. Completion of the Road from Cumbum to the foot of the Poermade Ghat Road — Kooruvanuth Bridge — Little was done to this bridge until the beginning of the year under review. The work was pushed on vigorously during the last nine months, one arch was completed, centering for the 2nd also completed and arch started, ~~during the last 9 months~~, wings raised on an average of 7' above springing line of arch and

North

North approach almost completed.

Road. Out of 10 miles 6 have been metalled and gravelled, and metal collected for completing the remaining 4 miles, which although incomplete, are practicable for traffic. Approaches to Seerugan Adai uneased at a Cost of Rs: 300.

The outlay was Rs 55,578 up to 1886-87 and Rs: 19,922 were spent in 1887-88, making a total of Rs: 75,500, against the Estimate of Rs: 90,507.

V. Provincial. Mis. Public Improvement. Madura

45. Surveying and Estimating the proposed System of Roads &ca at Kodaikanal. Work Completed. Expenditure Rs: 787, was incurred on Estimate Rs: 500.

VI. Local Incorporated.

Constructing a Bridge over the Vaigai river at Madura. Madura

46. At the commencement of the Official year the foundations of 6 of the 14 piers of the Vaigai Bridge had been completed and the next four partially executed. Work progressed steadily during the ensuing months, piers and both abutments were finished, with the exception of the 10th & 11th piers in the deep bed of the river. The cut stone piers were commenced in June and steadily progressed throughout the year that they were nearly completed to springing level throughout. Arch work was commenced in January; the first arch was completed by the 3rd March, and second keyed on the last day of the Official year. Considerable difficulty was experienced throughout in obtaining satisfactory bricks for arch work. Rupees 1,20,759 were spent during year against a grant of Rs: 1,20,000. Rs: 75,246 were expended up to the end of the preceding year, making the total outlay of Rs: 1,96,005, the Estimate being Rs: 3,21,460.

47. Ten miles of the road from Cumbum to the foot of the Gudalur Peermade Ghât were repaired at an outlay of Rs: 1623.

48. The construction of a rough stone retaining wall to the lake at Kodaikanal was completed at a cost of Rs: 470, of which Rs 406 were spent in the preceding year.

Tanjore. 49. A new road around Elathoor, in lieu of the eroded portion of Road no: 70, was completed at a cost of Rs: 1690, against an Estimate of Rs 1760, and 121 miles of roads on River Banks were maintained at cost of Rs: 6,781.

Negapatam. 50. 45½ miles of Roads on River banks were

were maintained during the year at a cost of Rs: 3939.-

51. Twenty miles of Road No 20 from Sanganur to Lower Anicut were kept in order at an outlay of Rs: 987.- Trichinopoly

VII Local Excluded.

52. (a) Diverting the Town drain, and (b) filling in the Boat Basin at Negapalam were in progress during the year; but owing to rains and necessity for extension of Jetty wall above face of boat basin, these works could not be completed. Expenditure Rs: 2036 and 1174 respectively; Estimates Rs: 2900 and 2284.- Negapalam

53. Repairs to the Jetty wall at Negapalam were in progress and Rs: 636 spent thereon from the Estimate of Rs: 730.-

54. A New earth plate was to the Lightning conductor attached to the Light-House at Kare Island, towards which Rs: 7 were spent in 1886-87 were completed at a further outlay of Rs: 35, and an outlay of Rs: 29 was also incurred in testing the Lightning Conductor.- Tinnevelly

VIII Miscellaneous Estate works Deposit Contributions.

55.- Gundamanaickanur Zemindari Estate works - Estimates amounting to Rupees 9734 were Sanctioned in G.O. No. 1047, dated 14th April 1887; these works were put in hand in July, but several of them were stopped at the request of the Collector. The total Expenditure during the year was Rs: 4566.-

56. Cunnivady Zemindari works - all the works were completed except two, and Rs: 3192 were spent during the year.-

Trichinopoly
28th May 1888.

I. W. Rundall
Superintg: Engineer
VIth Circle.

P.W.C. No. 5122

From

The Supr. Engineer
6th Circle.

To

The Chief Engineer
P.W.D.

No. 449 T.J.
Dated 28/. } May 1888.
D 30/.
Recd. 1.6.88

General Buildings
& Roads Branch:—

Administration
Report of the Sixth Circle
for the year 1887-88.

Compile
1.6.88

EXTRACT of Proceedings of the TRUSTEES of the HARBOUR of MADRAS, at a Meeting held at the Offices of the Board on Friday the 4th day of May 1888.

x x x

3. Read letter from the Engineer Harbour Trust Board No. 110 dated 23rd April 1888, submitting Administration Report of Works connected with the Madras Harbour for the year 1887-88.

Read minutes by the Chairman and Captain H. A. Street.

Resolved that this report be submitted to Government.

x x x

(True Extract)

C. Pinsent

Secretary
Harbour Trust Board.

No 110.

From

The Superintendent

Madras Harbour Works.

To

The Secretary

Harbour Trust Board

Madras.

Madras 23 April 1888.

Sir

I have the honor to forward herewith my Administration Report for the year 1887-88 as asked for in your letter of the 17 instant No. 179.

I have the honour to be

Sir

Your Most obedt. Servt.

Sd. F. N. Thorowgood.

Engineer

Harbour Trust Board

(True copy)

C. Pinsent

Secretary, Harbour Trust Board.

HARBOUR TRUST BOARD
9 - MAY. 88
MADRAS.

C.3
M 4834/88

E 2
PW 4834/88

Administration Report of Works Connected with Madras Harbour 1887-1888

The progress in the Construction of the Madras Harbour during the official year 1887-88 was not Satisfactory, the reason why so little work was done being due to the fact that the question of the ultimate design of the Harbour was unsettled up to March 31st 1888.

2. At the North pier of the Harbour 12 blocks were Set in the Superstructure advancing the work by a length of only 6 feet, and making the present termination of the Pier at this date 2525 feet from the Commencement of blockwork. There were 575 blocks deposited in the wavebreaker of the North Pier, making this work nearly complete to the full Section except at the extreme end where only the Titan crane (turned a quarter round) is able to form the

Screen

Screen of blocks of a width of 28 feet instead of the full 40 feet width which the special crane alone can reach to. On april 28th 1887 the Titan crane was drawn home and has been on shore ever since that date

3. There were 905 tons of Stone deposited in the base and fore shore of the North pier, but practically the whole work has been at a standstill awaiting a decision as to the design.

4. Unfortunately the unsettled state of the entrance question made itself felt over all parts of the work, and no where more Seriously than in the making of Concrete blocks. The number of blocks made in the past year was only 1133 which if both piers were in full work, might be used up in little over two months. In Some measure this Shortcoming in Quantum of blocks was also due to the want of energy in the Contractor who Supplied the Labour from April 18th 1887 to January 1888, and there is no doubt that in September and October 1887 more blocks might have been made. But this slackness is a mere trifle compared with the more Serious cause of delay, namely want of Portland Cement, and there is no doubt that the delay in Supply of the Cement was owing to the fact that the Consulting Engineer to the Secretary of State advised Suspending fulfilment of an Indent until the question of design was Settled.

5 On July 22 1887 there were 1000 tons of Cement in Store and 1000 tons under Supply and on July 23rd 1887 an Indent for another 2000 tons was Submitted. There was clearly no delay in

in despatching the Indent, but no cement arrived on that Indent till after the close of the official year. The bad effect of this want of cement has already been felt at the South pier and will be apparent for months to come.

6. At the Pallaveram Quarries work was necessarily slack and irregular as from April 1887 all work in advance of the North Pier was stopped, nor could the last 300 feet of the South pier foundations be touched for this same reason of doubt as to design. The total quantity of stone received from Pallaveram during the official year was 36,427 tons in 6335 wagons. The Quarry lines were maintained in excellent order and the only derailments that occurred were evidently owing to the act of some malicious person and were in no way attributable to the condition of the line. The cases in question were taken up by the Police but as yet with no satisfactory result.

7. The accumulation of Stone at the Quarry is very great but within the limits of what will be required to carry out the proposed North East Entrance.

8 At the South pier the progress was very good until the supply of wavebreaker blocks gave out, when work was brought to a standstill. During the year 684 blocks were set in the South pier of which more than half were set in the month of February. The length advanced was 417 feet. Another 200 feet of pier might easily have been built if there had been enough wavebreaker blocks. There were 443 blocks dropped into the wavebreaker and 12,675 tons of

stone

stone deposited in the base and foreshore of the work.

9. For the remaining portion of the South Pier superstructure the Screen of wavebreaker blocks should be ultimately 40 feet in width, to form which either a new disposition of existing cranes will be necessary or a fresh crane similar to one at the North pier will be required. The Setting of this point, of the very first importance, again depends much on what the future design of the Harbour is to be.

10. The general depth of water inside the Harbour remains about the same as heretofore. What slight changes are found are mostly on the side of shoaling but there is deepening in spots. There is no conspicuous change either within or without the Harbour.

The

11. The total expenditure on the works during the past year has been Rs 3,92,718 made up as follows.

Works	Rs	3,63,695
Establishment . .	"	65,283
Tools & Plant . .	"	7,602
		4,36,580
Deduct Suspense account		43,862
		3,92,718

The total expenditure upto the end of the year was Rs 24,24,930 the total estimated cost being Rs 45,90,057.

12. The question of the position of the entrance was referred by the Secretary of State for India to a special committee presided over by Admiral Salmon V.C. assisted by Admiral Sir George Nares and Sir John Coode K.C.M.G. Many witnesses were examined before this committee, amongst others being the late Master Attendant of Madras the Superintendent of the Harbour Works, the Senior Government

Pilot

Pilot for Madras and two
leading Towmen off the Harbour
Works. The Committee recommended
a North East Entrance on the plan
previously approved by the Harbour
Trust Board, but to the date of
writing no orders for actual work
on this plan have been received.

13 During the past year the
post of Superintendent of the
Madras Harbour Works was joined
to that of Engineer to the Harbour
Trust, and a great number of small
works were carried out for the
benefit of the landing and shipping
of goods, regulation of traffic on
the Iron pier and on the beach &c.
in accordance with Suggestions
of the Harbour Trust Board. Incomplete
as the carrying out of these Suggestions
now is the benefit of them is nevertheless conspicuous. Amongst other
things 2520 feet of railway lines

lines were laid in on the foreshore
to relieve traffic on the Iron pier and
cranes were erected Commanding
these lines. a portion of the shore was
levelled, revetted and rammed down
on the Surface to Serve as a "Coal Hard",
and as Such it is used. Twenty nine
cranes were put into good order and
the Iron pier itself was taken in hand
for thorough repair, an Embankment
being Substituted for timber and Iron
work for a length of 230 lineal feet.
One goods shed and platform chiefly
for export cargo, was completed and
others will soon follow at places
Suggested by the Harbour Trust Board.
Additional railway lines branching
off to the North and South from the
Iron Pier will shortly be made, when
notwithstanding the still exposed
state of the shore within the Harbour
there can be no doubt that the facilities

for

for disposing of cargo will be increased in an immense degree.

Sd. F. N. Thorowgood
M. Inst. C. E.
Engineer
Harbour Trust Board

Madras Harbour Works office
23 april 1888

E.1
PH 4834/88

HARBOUR TRUST
9 - MAY. 88
MADRAS.

True copy
C. Pinsent
Secretary, Harbour Trust Board.

Mar Cus 384/88

Harbour Trust Board Office,

MADRAS, 8 May 1888

No. 570

FROM R. W. Barlow Esquire C.S.
CHAIRMAN, HARBOUR TRUST BOARD,
MADRAS,

To The Hon: Mr. H. E. Stokes. C.S.
CHIEF SECRETARY TO GOVERNMENT,
Marine Department.
Ootacamund.

Sir

I have the honor to submit herewith for the information of Government, copy of a letter from the Engineer Harbour Trust Board, No 110 dated 23rd april, forwarding his administration report upon the Madras Harbour Works for the official year ending 31st March 1888, and beg to solicit the attention of Government to the close of para 2, and to para 9, in reference to the wavebreaker Screen, and the removal

of

of the wavebreaker crane reported in my No 312 dated 25 April 1888.

Despatch in the Press.

I have the honor to be
Sir
Your most obedt Servt

[illegible]
Chairman
Harbour Trust Board

P. sec

× Cr 340/00
Transfers to
[illegible]
11/5/88
This paper [illegible]
[illegible]
[illegible]
[illegible]

Mp 259 – 14 – 7 – 87
p 173 – 22 – 4 – 87

SECRETARY TO GOVERNMENT, P.W. DEPARTMENT, MADRAS. 19 MAY 88

d/ 19 May 188

Transferred to the Public Works Department (By order)

W. S. Meyer
Asst Secretary

P.W.C. No 4834
~~Current No 384~~

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,
HARBOUR TRUST BOARD,
MADRAS,

To

THE CHIEF SECRETARY TO GOVERNMENT,
Marine Department.

Colacamund

DATED 8 } May 1888.
RECEIVED 11 } 23.5.88

ENCLOSURE (2) 3

No. 570

CHIEF SECRETARY 11 MAY 88 MADRAS

SUBJECT.

Submitting with remarks for the information of Govt. copy of letter No 110 dated 23 April 1888 from the Engineer H.T. Bd. forwarding administration report upon the Madras Harbour Works for the year 1887/88.

~~Recorded~~

Sub up previous reports

12/5

No. 2805 W

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 10th Septr 18

READ the following

From the Superintending Engineer, I Circle, H.E. No — of 5th June 1888
" — Do — " II " — " No — of 12th June 1888
" — Do — " III " — " No — of 28th May 1888
" — Do — " IV " — " No 193/Ew of 25th May 1888
" — Do — " V " — " No 963 of 8th June 1888
" — Do — " VI " — " No 449 TJ of 28th May 1888
" — Do — " do " — No 106 R.N. of 29th May 1888
" Consulting Archt. to Govt. No 339 of 29th May 1888
" Examiner, P.W. Accounts No 2031 of 8th August 1888
" Do — do — No 2032 of 8th August 1888
" Marine department dated 19th May 1888

Administration Reports for the year 1887-88.

Recorded.

MCM
8.9.88

Cu

C.A.W.

There does not appear to be any disposal on C. No 4834.

BP
30/11/88

AC
This paper was disposed of by the Administration Report.
Please put it in the bundle containing the other disposing of the circle

SW 13/9

Dw