Superintending Engineer's Office 4th Circle.

Coimbatore 13th Augt 1887.

No: 338
Ent

From,

COLONEL J. BEATTY R. E.,

Superintending Engineer,

Fourth Circle.

To,

The Chief Engineer,
P. W. Department.

Enclosure 1
1. Application.

Sir,

I have the honor to submit for sanction an application for English stores purchased in India, under clause 2 of the rules laid down in G. O. No. 1679 W dated 2nd July 1886, for works in the Nilgiri Division.

I have the honor to be,
Sir,
Your most obt Sert

J. Beatty. Colonel R.E.
Supg: Engr. 4th Circle

G.C. 1679 W. 2.7.86

No. 2260 W a/28. August 87

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Sanctioned
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W.C.W.
16.5.87

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18/8/87

(9)

FROM

COLONEL J. BEATTY R. E.,
SUPERINTENDING ENGINEER,
FOURTH CIRCLE.

Dated. } 13th Augt.
Recd: } 1887.

No: 338
Ew

ENCLO: 1

No. 2260 W a/28. August 87

English Stores for works in the Nilgiri Division

Submitting for sanction an application for —.

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23/8

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E. IV C.
Exr. P. W. Accts
with the Statement.
with the statement.
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II Progress of Works.

I. Imperial Military Works.

Bellary: The Apothecaries quarters (double) at Bellary were completed with the exception of painting the doors & windows. The estimate was exceeded owing to the reconstruction of old foundations and basement; to the provision of sill slabs over doors and windows, not provided for in the original estimates; flooring with slabs; and substitution of new doors and windows for old ones rejected. The outlay amounted to Rs 6262 against the estimate of Rs 6222. A revised estimate was submitted for sanction through the Military Authorities.

Stores and timber to the value of Rs 1084, were collected for the collar maker and wheelers shop at Bellary. Estimate Rs 5662. The contractor who undertook to spend Rs 3000 on the work before the end of the official year failed to do so, owing to the allotment having been given late in the year.

The following minor works were

were carried out :—

(i) The drainage system of the European Infantry Barracks was improved at a cost of ~~Rs~~ 1721.

(ii) The coffee shop of the Royal Artillery was re-roofed with Mangalore Tiles, at a cost of ~~Rs~~ 948, and a temporary forge and shoeing shed erected for the Royal Artillery at a cost of ~~Rs~~ 345.

Coimbatore :— The following minor original works were completed :—

(i) Constructing two cisterns to hold water for fire engines; ~~at the Remount Depôt Mattigiri estimate Rs 1330.~~ fixing at

(ii) fixing a weigh bridge and constructing a shed over it in the shod lines; ~~at the Remount Dept Mattigiri estimate Rs 172~~

and (iii) improving the Sepoy's lines at the Remount Dept Mattigiri. The estimates amounted to Rs 1330, 172 and 230 respectively.

(2) Improving the rest house at Podanur. Estimate ~~Rs~~ 1190.

~~The repairs~~

Repairs to the Military buildings at the Remount Dept at Mattigiri and to the rest houses at Podanur and Mettu-=pollium were carried out at an outlay

outlay of Rs 5660.

Nilgiris :— The following works were completed & in progress :—

(1) The Bakery at Wellington was nearly completed : Estimate ~~Rs~~ 35,830 expenditure Rs 30,074.

(2) ~~Additions~~ Two living-in-wards added were ~~made~~ to the Station Hospital at Wellington at a cost of ~~Rs~~ 2909 : Estimate Rs 3,036.

(3) Quarters for a Barrack Sergeant at Wellington were commenced. Estimate ~~Rs~~ 7348 expenditure Rs 3213.

~~(4) Improvements were made to the~~

(4) The Laurence Asylum Smildrup were improved at a cost of Rs 4595. Estimate Rs 5790.

(5) Repairs were executed ~~made~~ to the Laurence Asylum & the Military Buildings at a cost of ~~Rs~~ 2389 and ~~Rs~~ 7040 respectively

West Coast :— The entire project of accomodating troops at Malapuram was fully completed according to the revised estimates. The buildings finished & occupied during the year were :—

1. Block No 2 with outhouses
2. Ward for contagious diseases
3. All the covered passages
4. The drains
5. Converting the wood godown into a bakery
6. Cattle and sheep pen.

The allotment for several works in connection with

4/

with the barracks was Rs 8315 of which Rs 7,691 were expended, bringing the total expenditure at the end of the year to Rs 1,22,672 against the estimate of Rs 1,35,802

The following works were completed or in progress:—

(1) Improvements to the Elephant shed at Malapuram were in progress; estimate Rs 2061; expenditure Rs 810

(2) A store room for the Madras Infantry Regiment (sanctioned) at Cuttack was almost completed. Estimate 9334 against an outlay of Rs 6653.

(3) The bomb proof roof of the Military Magazine at Cuttack was covered with an additional tiled roof to prevent the leakage frequently complained of. The lightning conductor of the Magazine was thoroughly renewed. The aggregate cost of the two works amounted to Rs 3,210 against an estimate of Rs 3,880.

(4) The old jailor's quarters at Calicut were improved; Estimate Rs 1,200 outlay Rs 1076.

(5). The family quarters of No. 2 Block of West Hill Barracks at Calicut were adapted for quarters for the Commissariat Sergeant and store-room Estimate Rs 650 outlay Rs 599.

(6).

p3

5/

(6) The lightning conductors on the Magazine at West Hill Barracks were renewed at an outlay of Rs 590 against an estimate of Rs 730

(7) The supplemental estimate of Rs 1170 for converting the old cells in the Cannanore Fort into a Double Magazine and providing shelves and racks &c was worked out, bringing the total outlay to Rs 3233 against the estimate of Rs 3590. The expenditure under Repairs Military amounted to Rs 32,307 against an allotment of Rs 33,497.

XXXI

XIII

Trichinopoly: A sum of Rs 6.62 was expended in repairing the Military Buildings and in paying compensation for grants in the other Divisions in the Circle.

The construction of public buildings for a Regiment of Native Infantry was continued, a Magazine and Cells having been under progress, the outlay was Rs 1756 against a grant of Rs 3593.

The construction of stone drains for the

new

(mentioned above)
(which were made construction for the use of
New lines for which a grant of Rs 6000 was
a regiment of Native Infantry)
~~sanctioned~~ given, could not be commenced, the
Estimate not having been sanctioned. The
construction of these drains has since been
ordered to be deferred.

II ✓

Vizagapatam: A sum of Rs 2573 was
expended on the maintenance & repair of
all Military buildings and roads in the
Cantonment of Vizianagram

III ✓

Godaveri (East) Repairs to the
Military buildings at Samalkot were
carried out at an outlay of Rs 692

IV ✓

Godaveri (West): A sum of Rs 80 was
disbursed on account of house-rent to the
Civil Apothecary

I ✓

Ganjam:- A sum of Rs 1358 was spent
in repairing Military Hospital, Cholera
and Small pox shed and the floor of
quarter guard at Berhampore and on
account of house-rent to Military
Medical Subordinates at Berhampore and
Chicacole

XXIII

Presidency and Bangalore:-

XII ✓

The following works were completed:-

(i)

(1). The conversion of A 4 block Family
quarters, Fort St. George, into single men's barracks
Estimate Rs 13,400 Outlay Rs 5,955.

(2) Additional work to the Coast
Batteries, and the maintenance of the Casuarina
plantations on the beach for the purpose of screening
the cost batteries, at a cost of Rs 1965. Total
outlay Rs 8,184; Estimate Rs 8,240.

(3) Guard rooms, Kitchens and Latrines
for the Coast Batteries, Estimate Rs 6,025;
Outlay Rs 5,870.

(4). Improvements to the Armament,
Fort St. George.; Estimate Rs 42,035; Outlay Rs
37,435.

(5) The re-construction of a wheel-wright
shop at the Gun Carriage Factory: Estimate
Rs 7,370 outlay Rs 6,712.

(6) Improvements to the wash houses at
the Parade Barracks, Bangalore; Estimate
Rs 12,500; outlay Rs 10,720.

(7). Additions to the Military prison
at Agram, Estimate Rs 8,325; outlay Rs 7478.

(8). Cavalry stables at Agram for 66
additional horses; Estimate Rs 5,930; outlay
Rs 5,360.

The following works
were in progress:-

(1). Conversion of Rachel Court
in

in Fort Saint George into a covered Gymnasium Estimate Rs 11,890.; outlay Rs 2600.

(2). Improving the water supply of Fort St. George, Estimate Rs 6,445; outlay Rs 6,298

(3) Public buildings for a regiment of Native Infantry on the Arab Lines plateau at Bangalore. Estimate Rs 21,636 Outlay Rs 15,188

Twenty one Minor New Works at the Presidency and thirty six at Bangalore were commenced and completed during the year at a cost of Rs 10,404.

Two hundred and ninety two Repair Works at the Presidency and two hundred and five at Bangalore were carried out during the year.

Payments amounting to Rs. 19,297 Rs were made to the Madras Municipality on account of house, water, and lighting taxes on Government Military Buildings outside Fort St. George. and Rs 6000 on account of maintenance and repairs to the Esplanade and Fort beach roads.

At Bangalore Rs 1200 and Rs 6300 were paid to the Cantonment Municipality for the conservancy of the

the main sewer and the maintenance of the Military Roads.

The total outlay under Repairs was Rs 1,21,497 at the Presidency and Rs 49,001 at Bangalore.

The most important of the repair works that were undertaken in the Presidency during the year were:—

(1) Repairing and lime washing walls of European Infantry Barracks Fort St. George Estimate Rs 3,690 outlay Rs 1,409.

(2) Re-roofing mess house Fort St. George Estimate Rs 6400. outlay. Rs 4081.

(3) Repairing and lime washing public quarters at the Gun Powder Factory. Estimate Rs 3,570; outlay Rs 811.

(4). Thorough repairs to the Government Granary on the beach. Estimate Rs 8,800 outlay Rs 6897.

(5). General repairs and covering the floor of the Army Clothing Department Office with asphalte Estimate Rs 2670 outlay Rs 2,327.

(6) Supplying gravel to the Parade ground and Sepoy's court yards of the N. I. Lines. Perambur. Estimate Rs 6490 outlay 6308 Rs

The following repair works were carried out in Bangalore

(1). Painting doors and windows of Cavalry Agram Barracks: Estimate Rs 3,975

3,975 outlay Rs 3,918

(2) Painting doors and windows of R. Artillery Barracks. Estimate Rs 2,487 outlay Rs. 2,378

(3) Renewing filtering materials of the cistern at the Ulsoor Rock. Estimate Rs 1,783. Outlay Rs 1,742

(4) Renewing filtering materials of the cistern at Dhobie's Wells: Estimate Rs 1,577 outlay Rs 1,076

(5) Painting doors and Windows of Ulsoor Royal Horse Artillery Barracks. Estimate Rs 1,782 Outlay Rs 1,746

Chinglepat :— The following works in connection with the new Royal Artillery barracks at the Mount were completed :—

(a). Barrack, east block.
(b). Barrack, west block.
(c). Three wash-houses.
(d). Three Kitchens
(e). Wheelers shed
(f). Store-room
(g). Latrine.

The construction of a recreation-room, coffee-shop, plunge-bath, and drains was completed. at the barracks of the Artillery at the Mount was completed. The total outlay was Rs 1,37,694 against an estimate of Rs 1,46,910.

Granite stones were provided to the head & heel stones, and the construction of three gearing rooms were constructed in the six blocks of stables of the Royal Artillery barracks at St. Thomas' Mount. which were completed by the end of 1886. The total outlay was Rs 22,914 against an estimate of Rs 23,389

The construction of a coppe shop with kitchen for the Upper Storey Barracks St. Thomas' Mount, was in progress. Rs 2,165 were expended on an estimate of Rs 6,690.

Seven Minor new works were completed at a cost of Rs 1,232.

The expenditure on Minor new works and repairs was Rs 27,620; and the total expenditure under Repairs, including Barrack Master's petty repairs, compensation for quarters &c was Rs 36,236.

The principal buildings repaired were :—

(1) repairing, the white and the color washing the South Barracks at the Mount Estimate Rs 3,020. Outlay Rs 2,817

(2) to Garrison Store room in the Staff office at Bonamallee. Estimate Rs 340 outlay Rs 499.

(3) Station Hospital and out-houses at

at Poonamallee: Estimate Rs 860: outlay Rs 782.

(4). Three blocks of the West Barracks and its out-houses at Mount. Estimate Rs 1,360; outlay Rs 1,305.

(5) Station hospital and its out-houses at Mount. Estimate Rs 910; outlay Rs 882

(6). Roof of Serjt. Majors quarters at Poonamallee Estimate Rs 790: outlay Rs 742.

North Arcot: No major or Minor Works were carried out during the year.

A sum of Rs 2977 was spent under Repairs, including the usual annual contribution of Rs 1000/- paid to the Municipality on account of the maintenance of the Vellore Cantonment Roads.

South Arcot:— Rs 420 were spent out of a grant of Rs 444 on account of compensation for quarters for three Military apprentice overseers and rent of quarters for the Sergeant Instructor of the S. I. R. Volunteer Rifle Corps.

Progress of Works.

ii. Imperial Civil Works.

Bellary:— The walls of the Post office at Anantapur were raised to a height of eleven feet, and out houses nearly finished, but the work was suspended pending sanction to the construction of a Telegraph Office Room which it was proposed to attach to the Post office. The expenditure amounted to Rs 1922 against the estimate of Rs 4051.

Presidency and Bangalore:— The combined Post and Telegraph Offices were completed by the conversion of the Commissariat Mule Stables on the foreshore into stables for the Post Office Mails, and the construction of quarters for the Sergeant in charge of the Mails. The total expenditure on the combined offices amounted to Rs 6,89,931 and the Estimate to Rs 6,92,094.

Under Minor Works, an estimate of Rs 2790 was sanctioned for additions to the Lightning conductors of the Post and Telegraph Office to bring them into accordance with the new Code of Regulations, and other minor additions required by the Departmental

Departmental Offices. (Contd on pages 5 and 6)

Nellore: A sum of Rs 842 was spent on the construction of quarters for the Postmaster at Gudur, the estimate was ~~Rs~~ 1265 against a grant of ~~Rs~~ 1232. The work was almost completed || The Post Offices at Kavali and Krishnapatam were repaired during the year, but ~~but~~ the repairs of that at Gudur could not be commenced till the quarters for the Postmaster were finished. || new para

Krishna, East:- A well in the compound of the Bezwada post office was constructed during the year. The estimate amounted to ~~Rs~~ 280 against an outlay of ~~Rs~~ 307. After three fourths of the work had been completed, the Estimate required revision, owing to clay having been met with. The repairs to the Telegraph Offices at Bezwada & Masulipatam were executed. ~~A sum of Rs 110 was spent on illuminations on the Queen's jubilee day, the grant amounted to Rs 500. This expenditure was incurred only in the Krishna Eastern and Western Divisions~~

Krishna West:- Rs 804 were expended in completing the Duggirala Post Office: Estimate ~~Rs~~ 900: allotment ~~Rs~~ 757. The Telegraph Office at Guntur was repaired.

Coimbatore: Repairs to five Post Offices were carried out during the year at an outlay of Rs 762

Nilgiris. The Ootacamund Telegraph Office was repaired at a cost of Rs 564 and the Wellington Post Office at an outlay of Rs 158

West Coast:- Certain vacant buildings in the Fort at Tellicherry (late District Jail) were converted into a Post Office and Post Master's quarters. The estimate amounted to Rs 1810 and the expenditure to Rs 1788. The work was completed. ~~Rs 637~~ Rs 637 were spent in repairs to eight Postal Buildings

Tanjore: Out of an allotment of Rs 1292, Rs 1079 were utilized. The chief item on which short outlay was incurred was the extension of Kumbakonam Post Office. The work was practically completed. but payment deferred ~~pending inspection~~.

Triplicane: Slight improvements were carried out to the Post Office at

at Teppacolum, and the Sub Post office at Trichinopoly at a cost of Rs 45 and Rs 20 respectively.

Madura:- The Construction of ~~It~~ a Post office at Buttagundu was proceeded with. Out of the grant of Rs 955, Rs 920 ~~have been~~ were spent and the work was nearly completed.

An outlay of Rs 109 was incurred in repairing the Post offices at Kovilur and Ammayanaickanur.

Tinnevelly:- ~~A sum of Rs 16 was incurred in providing a Punkah to the Telegraph office at Tuticorin~~

An expenditure of Rs 437 was incurred on repairing the Post Offices at Palamcottah and Srivaikuntham. The former was completed and the latter is in progress.

Ramnad:- The grant of Rs 757 was fully spent in completing the additions to the Post office building at Ramnad.

Godaveri (East): Repairs to the Telegraph buildings at Cocanada. Sbut amtg Rs 647. The repairs to these buildings were

~~were not put in hand pending the completion of the improvements to the same.~~

A sum of Rs 735 (of which Rs 306 was spent in the previous year) was expended on improvements to the Post office building at Bhadrachalam against an estimate of Rs 830. The work was fully completed

An Estimate amounting to Rs 34,135 was sanctioned for the construction of quarters for signallers to the Telegraph department at Cocanada. The work was completed at a total cost of Rs 39,449, the expenditure being Rs 5329.

Improvements to the Telegraph Office at Cocanada were carried out at a total cost of Rs 3696, the expenditure amounting to Rs 758 against an Estimate of Rs 4000.

Vizagapatam:- Repairs to the Post offices at Vizagapatam, Narsipatam and Konapet were completed.

The construction of a Post Office building at Salur for which an Estimate of Rs 2000 was sanctioned, was in progress. The outlay amtd to Rs. 598

Presidency and Bangalore:-

No work of any importance was carried

See next page

6/

~~carried out~~; a few petty works were ~~undertaken~~ executed

The following repairs were carried out.

(1) Repairing and white washing walls of the Mylapore Post and Telegraph Offices — Estimate Rs 155; Outlay Rs 152.

(2) Repairing and white washing the Shoolay Post and Telegraph Offices Bangalore. Estimate Rs 186; outlay Rs 172.

North Arcot :— A sum of Rs 76 was spent on the construction of a well for the Punganore Post office.

Rs 350 were spent on repairs to Postal Buildings and Rs 42 on repairs to Telegraph Buildings

South Arcot :— A sum of Rs 148 was expended on repairs to Postal buildings

.. Progress of Works ..

iii .. Provincial Civil Buildings.

IX

Bellary :— The second class Salvage office at Sirugappah was completed during the year; but final payment was not made owing to the delay on the contractor's part in rectifying defects in the roof which caused the measurements to be postponed until too late. The expenditure ~~up to date~~ amounted to ~~Rs~~ 12771 against the estimate of ~~Rs~~ 12680.

The Collector's office at Anantapur was completed with the exception of a stair case to the upper story, parapets, second coat of plaster, and wood oiling, fitting doors and ventilators; laying slabs to upper verandah, and substituting iron railing for masonry parapet walls. The progress of the work ~~has~~ was not ~~been~~ quite satisfactory owing to the contractor's failure to make proper arrangements. The expenditure on the work amounted ~~to Rs~~ 49,902. against the estimate of ~~Rs~~ 53,000.

The Head Assistant Collector's Office at Penukondah was completed and handed over. The expenditure amounted to

~~Rs~~

~~Rs~~ 16,091 against the estimate of ~~Rs~~ 16,682

The second class Taluq Office at Boodapatam was completed and occupied during the year. The expenditure amounted to Rs 12,777 against the estimate of Rs 12,200.

The old structure in the Collector's residence at Anantapur was removed; but nothing more could be done as no contractor came forward to take up the work; and it was not possible to arrange for the execution of the work departmentally within the short time left to close the official year. The expenditure on the Work amounted to ~~Rs~~ 15,997 against the estimate of ~~Rs~~ 28,190.

Improvements to the Collector's Office Bellary were carried out. The Walls of the rooms in east and west wings were completed to a height of ~~18~~ eight feet above basement level; and door and window frames were fixed. The expenditure amounted to ~~Rs~~ 8518 against the estimate of ~~Rs~~ 47,540.

The undermentioned Minor New Works were carried out:—

(i) Enlarging the Collectors Printing Office at Bellary; estimate ~~Rs~~ 1745. outlay ~~Rs~~ 1719.

(ii) A Police Hospital ~~was built~~ at Nospell at a cost of ~~Rs~~ 653.

(iii) A Sub Registrar's office ~~was built~~ at Hadgally for ~~Rs~~ 2,353.

(iv) A Sub Registrar's office ~~was built~~ at Hospet at an outlay of ~~Rs~~ 2,167

(v) The Civil Cemetery at Bellary was provided with a gate way, and robing room at a cost of ~~Rs~~ 430

(vi) Out houses ~~were built~~ for the Head Assistant Collector's Bungalow at a cost of ~~Rs~~ 460 and:—

(vii) A strong room ~~was built~~ in the Taluq Office at Kudligee at a cost of ~~Rs~~ 603.

XI

Kurnool:— The Taluq Office at Nandyal was in slow progress owing to difficulty in procuring labor on account of extensive Railway Works. The expenditure amounted to ~~Rs~~ 15,662 against the estimate of ~~Rs~~ 34,676

The Sub Divisional Officers Quarters at Cumbum were completed on the revised estimate of ~~Rs~~ 4,794, the expenditure amounting to ~~Rs~~ 4,770.

Kuddapah

14

Cuddapah: — The construction of a Salug Office at Voyalpaud was in fair progress. The expenditure amounted to ~~Rs~~ 9910 against the estimate of Rs 25,700.

~~work was in progress~~ The Collectors office at Cuddapah: ~~→~~ .... ~~The~~ foundation and basement to the Printing Office were finished, and the superstructure was in progress. The foundation to the main buildings was nearly completed. Estimate ~~Rs~~ 143,741. Expenditure ~~Rs~~ 32,603. ~~It is expected that about Rs 7500 will be adjusted in the supplemental accounts on account of P.W. Workshop Bills.~~

Of the sanctioned additions and alterations to the District jail at Cuddapah, the female ward was almost completed and the Male Ward No 1 completed except flooring and painting. The expenditure amounted to ~~Rs~~ 14,741 against the estimate of ~~Rs~~ 31,900.

The number of wells below Rs 2500 that were carried out during the year was fifteen; ~~and~~ the outlay being ~~Rs~~ 6057.

Presidency and Bangalore: — An expenditure of ~~Rs~~ 4419 was incurred on materials for the alterations to the roof of

XIX

XVIII

of the North and South wings of the Public Works Offices at Chepauk. The sanctioned estimate was ~~Rs~~ 5,035. The work was ~~successfully~~ completed during the year. ~~and has greatly tended to improve the appearance of the building~~ The saving was chiefly due to the utilization of materials in the old roof.

An estimate of ~~Rs~~ 5764 was sanctioned for the construction of tiffin rooms for the clerks of the Revenue Board Offices and Students of the College of Engineering. The old tiffin rooms which stood on the south side of the College of Engineering, an old Carnatic building, a part of which was in a dilapidated state, were pulled down to make room for the extensions to the College of Engineering and a new range of tiffin rooms was constructed on another site. By utilizing a large quantity of the serviceable materials belonging to the old tiffin rooms a saving was effected on the Estimate. The total expenditure amounted to ~~Rs~~ 5215.

Additions were made to the College of Engineering Madras, — the walls were raised ~~(2)~~ twenty feet above the ground level.

level and a great portion of the materials collected and worked. Further progress in construction had to be delayed owing to the non arrival from England of the rolled Iron girders which were indented for through the Indian Office.

The construction of covered passages at the New Ophthalmic Hospital at Madras was completed. The outlay amounted to Rs 9,192 against an estimate of Rs 11,010. An expenditure of Rs: 616 was incurred to the payment of the bill to the Agri Horticultural Society for laying out the grounds with plants and shrubs. An separate estimate of Rs 11,010 was sanctioned for the construction of covered passages to this hospital, which was completed. The expenditure amounted to Rs 9,192.

A total expenditure of Rs 10,640 was incurred on repairs to the Lying-in-Hospital at Madras. The general repairs chiefly consisted in replastering the lower portions of wards with Portland cement, painting wood and iron works, washing &c. The Special repairs consisted in

taking up and relaying the tiled roofing with a lining of Willesdon paper. The buildings were placed in excellent order.

The construction of a latrine, on the banks of the Buckingham canal, west of the Senate house, which was commenced in 1885-86, was completed; expenditure Rs 6390; estimate Rs 6605.

The fishing villiage on the south side of the Presidency College was removed to the west side of the Canal. The work was successfully completed at a cost of Rs 35,715, against the estimate of Rs 36,158.

The work of constructing cook houses and fencing the compounds of the several quarters attached to the College of Engineering was completed; expenditure Rs 3,851; estimate Rs 3,872.

An estimate of Rs 2,946 was sanctioned for alterations and additions to the Presidency College, especially to the physical Science Department. The outlay amounted to Rs 2,775. The estimate amounting to Rs: 27,139 for improvements to the roads and maintenance of trees and plants was carried

~~carried out~~ was worked out.
in the Chepauk Park.; Most of
the ~~Estimate was worked out as in the previous~~ Expenditure was incurred
in ~~year~~ 1886-87; ~~estimate Rs 27,129, outlay 27,802 Rs~~ and the total outlay amounted to Rs. 27,802.

An estimate of ~~Rs~~ 2,455 was sanctioned for the repair and maintenance of the roads in Chepauk Park, the expenditure amounted to ~~Rs~~ 2463. ‖fresh para

A sum of ~~Rs~~ 10,529 was spent during the year for minor (Original) works ~~which chiefly consisted in making~~ principally:-

(i) Making a road in the open land North of the Ophthalmic Hospital

(ii) cleaning and levelling the site of the old fishing village ~~and other minor additions to buildings.~~

Rupees 17,717 was spent on repairs to buildings during the year ~~to buildings~~ including the maintenance of the foreshore and ride at the South Beach ~~Roads at Chepauk~~, and the repairs executed to the old Eye Infirmary ~~a private building when it was vacated on the terms of the lease;~~ also ~~Rs~~ 4,809 were paid on account of Municipal Taxes for the Public Walls Department Offices and Government Brickfields.

(Continued on page 27-

~~S. No.~~ VI

a 2/ Kristna Eastern Division:- Construction for the construction of a Residence and Office for the Superintending Engineer ~~Kistna~~ was completed with the exception of the cabinets; estimate ~~Rs~~ 26,775 expenditure ~~Rs~~ 27961. Out of an allotment of Rs 1,000 for raising the compound round the Superintending Engineer's residence, ~~Rs~~ 401 were spent.

An allotment of Rs 1170 was granted for the addition of a room to the new treasury in the Gudivada Taluq office. Nothing was spent during the year, owing to the late receipt of the allotment.

~~An estimate for Rs 4308 was sanctioned~~ A sum of Rs 800 was allotted for the construction of Head Constables' and ~~two~~ Constables' (~~four~~) huts at Segwada. Rs. 408 was spent in collecting materials and the work had then to be stopped owing to the refusal of the Church Mission Society ~~to~~ to give up the land in their School Compound, where it was proposed to build the huts.

Repairs to ~~two Collectorate houses~~ following ~~places~~ were completed:-

(1) the Collector's house
(2) St Mary's Church.
(3) Eastern Division Office
(4) Northern Sub Division Office.

~~S. No.~~ VII

Kristna Western Division:-

Trees were planted in the compound of

and a sum of
of the Division office, Rs 83 ~~was~~ spent on
their maintenance against a grant of
Rs 115. ~~There are now 448 trees of 26 Kinds in the compound~~

Slight repairs to the Division office at Duggirala and the jail buildings at Guntur were carried out.

Nellore:- The following works were completed during the year:-

1. Sub Registrar's office at Gudur.
2. Police huts at Kandukur.
3. Extension of the Sawyer's shed, Nellore Workshops.

~~The Sub Registrar's~~ of the Sub Registrar's office at Addanki was in progress.

Under repairs the following buildings were attended to:-

1. Hill Bungalow at Ongole
2. Sub Collectors " " "
3. Police Asst Superintendents bungalow at Ongole.
4. Kodaiconlur Bungalow
5. Collectors Bungalow. Nellore
6. Taluq cutcherry and Sub jail at Kandukur
7. Police Station house at Naidupett
8. ~~By~~ Tahsildar's cutcherry and Sub jail at Venkatagiri
9. Taluq cutcherry at Atmakur

VIII

10. District Jail. Nellore.

XII

Coimbatore:- A new room for the Anzur Treasury at Salem was constructed at a cost of Rs 2876.

XIII

The following works were in progress:-

(1) Alterations and additions to the quarters of the Superintendent, Central Jail, Salem; estimate Rs 3605; outlay ~~up to date~~ 2604 Rs.

(2) Construction of quarters for the Dy. Jailor attached to the Central Jail, Salem; estimate Rs 3660; outlay up to date 2,852 Rs.

(3) Reconstruction of a portion of the District Moonsiff's Court at Ramakal Estimate Rs 3595; outlay up to date 2574 Rs.

(4) The purchase and improvement of the Police Assistant Superintendents residence at Tripatore; Estimate Rs 4768; outlay up to date Rs 4,673

(5) The construction of a close prison at Coimbatore: Estimate Rs 19582 Expenditure of the year Rs 1534.

(6) Improvements to the Central jail at Coimbatore. Estimate Rs 5745; expenditure up to date Rs 4,474.

Five Minor Works were undertaken and fully completed during the year on an outlay of Rs 1892

12/

thirty five repair works were carried out during the year at a cost of Rs 3,482

Nilgiris:- A sum of Rs 3866 was spent on providing stone steps to the terraces, and guttering to the roof with masonry drains ~~in connection to~~ Govt House, Ootacamund. ~~Estimate Rs 7,780.~~

The Protestant Church at Wellington was completed during the year within the amount of the revised estimate (Rs 47,870) the outlay for the year amounted to Rs 9,574.

A Bench Magistrate Court at Kotagiri was commenced and nearly completed. ~~The~~ Estimate Rs 8,060 Expenditure Rs 5,642

Of the undermentioned works the first 5 were completed; the rest were in progress:-

(1). Construction of an exercise yard for European convicts in the Ootacamund Jail: Outlay Rs 4,472: Estimate 5790 Rs.

(2). The conversion of Rowe's Bungalow into a police Station; the outlay for the year being Rs 5178. The total expenditure amounted to 9186 Rs against an estimate of Rs 9170.

XIII

XII

(3) Improvements to the Executive Engineer's Office at Ootacamund

(4) Provision of drains to the Police lines at Ootacamund and to the Coonoor cemetery

(5) Repairs to Government House and which a sum of Rs 9177 was spent.

(6). The new buildings for Breek's Memorial School were in progress: Estimate Rs 38,180 outlay Rs 20,149.

(7) The construction of a Roman Catholic Church at Wellington Estimate Rs 30,526 Expenditure up to date Rs 7,000.

(8) Construction of a new Police Station at Neduvattam.

Four Minor Works ~~under this board~~ were carried out ~~Constructed~~ during the year and

the buildings on Mount Stuart at Ootacamund were repaired at a cost of Rs 4011.

XIV

West Coast: The District Moonsiff's Court and the Record Room at Calicut, which remained incomplete at the end of the previous year, were finished; and with these buildings the whole project of the Law Courts at Calicut as originally designed was completed at a cost of Rs 96,43

96433 against an estimate of Rs 95,240.
The ~~accounts~~ were handed over to the Judicial Department.

Improvements to the Government Chunch Vara at Cochin, which were commenced in the previous year but stopped pending formal sanction to the Estimate; were resumed. Rs 14,616 (which includes an outlay of Rs 5,579 incurred in the previous year) were spent against an estimate of Rs 20,680—

Satisfactory progress was made with the new public offices at Sonaini. The years allotment, Rs 20,000, was fully expended; the total expenditure up to the end of the year amounted to Rs 50,784 against the estimate of Rs 74,521. ~~The Masonry of the lower story was completed.~~

The following works were in progress:-

(1) ~~The construction of~~ A residence for the Assistant Superintendent of Police at Malapuram. Estimate Rs 13,665. Expenditure Rs 7222.

(2) ~~The construction of~~ A Sub Registrar's Office at Chevayur: Estimate Rs 3020 expenditure Rs 1400

(3) Improvements to the Moonsiff Court at

at Betalnad; allotment Rs 2000 was fully worked out. Estimate Rs 4295.

(4) Additions and improvements to the Police Superintendents Office at Mangalm: the full allotment of Rs 3000 was spent. Estimate Rs 9200

(5) ~~Construction of~~ A Sub Registrar's Office at Puthen and another at Vadipi Expenditure Rs 1000 & 1200 and Estimates Rs 3120 and 3370 respectively.

(6) ~~Construction of~~ A Sub Registrar's Office at Mannarghat for which an Estimate of Rs 2450 was sanctioned.

The Head Assistant Collectors residence at Cundapur, an incomplete work of the previous year, was fully completed and handed over to the Revenue Department. The total expenditure was Rs 16,680 against an estimate of Rs 17000; the outlay for the year being Rs 8915 against an allotment of 9235 Rs.

The following works were completed:-

(1) ~~Alteration~~ The conversion of a vacant building in the Fort at Tellicherry (late jail) into a residence for the Sub Collector's Cutcherry. Outlay amounted to Rs 1665

(2) Additions and alterations to the

District

District Monsiff's Court House at Payyad commenced in the previous year. The total outlay was Rs 15 09 against an Estimate of Rs 1,520.

(3) The conversion of the Sweeper's quarters at the Lunatic Asylum, Calicut, into a patients ward. The expenditure amounted to Rs 2268 against an Estimate of Rs 2740.

(4) The erection of a temporary shed for the accomodation of 36 patients at the Lunatic Asylum at Calicut for Rs 850.

~~Under Repairs Provincial~~ A sum of Rs 6683 was spent on these repairs ~~Expended~~, the chief items being:—

(1) repairing the roof of St John's church at Cannanore. ~~for~~ Rs 1,715

(2) rebuilding the tunnel of the District Monsiff's Court house at Tellicherry. ~~outlay~~ Rs 475

(3) repairing the record room of the Huzur ~~Cutcherry~~ Cutcherry at Calicut. ~~outlay~~ Rs 572

(4) repairing the Malapuram church and belfery. ~~outlay~~ Rs 650.

(5) repairing the Taluq cutcherry at Manjeri. ~~outlay~~ Rs 1580 —

Trichinopoly. The construction of a District jail in Trichinopoly for which a grant of Rs 11500 was sanctioned, was in progress. The expenditure amounted to Rs 11,131.

The Sub Registrar's Office at Manaparai was completed at a cost of Rs 2152. The sanctioned Estimate being Rs 2,090.

The following repairs were carried out:—

i — Re-roofing block No 1 Central Jail. The repairs were nearly completed and at an outlay of Rs 2586.

ii — District Monsiff's Court at Arjalur on which a sum of Rs 490 was spent.

Tanjore:— The following works were completed

(i) A ~~The construction of the~~ District jail at Tanjore ~~was completed~~. Estimate Rs 2,11,100 Outlay 2,02,771

(ii) A Police Station house at Tanjore Estimate Rs 6,760 Expenditure Rs 7,113.

(iii) - Compound wall - walls of the Warder's huts attached to the District Jail, at a cost of Rs 1255 against an Estimate of Rs 1620

XIX

(iv) Alterations to a portion of the old Taluq Cutcherry for the accomodation of the Sub Registrar's office at Trivaur. Estimate Rs 1120 outlay Rs 1220.

The following works were in progress:-

(i). The construction of a combined Court House for the District Munsiffs at Kumbakonam and Valangiman. Estimate Rs 34,342 Expenditure 7,607.

(ii) The construction of a first class Taluq Cutcherry at Kumbakonam and a District Munsiffs Court Estimates Rs 19,240 Expenditure Rs 249

(iii) Extensions to the Police Station House at Kumbakonam Estimate Rs 3,700 outlay Rs 1141

(iv) Police Station at Kornad in the Mayaveram Taluq Estimate Rs 1,130, Expenditure Rs 1102

(v) Construction of 6 huts for the Land Custom Police at Nalladay Estimate Rs 1950. Expenditure for land compensation Rs 1141 — Work held in abeyance

Repairs to the buildings below mentioned were put in hand:—

(i).

(i). District Court Tanjore to which lightning conductors were added Work completed. Estimate Rs 1,127

(ii) Taluq Cutcherry at Shealy in progress. Estimate Rs 1,240.

XXII Negapatam:- An estimate amounting to Rs 1200 was sanctioned for extending the Government Cemetery at Negapatam. Outlay Rs 459.

The compound of the Ex Engineer's Office at Kadambady was metalled at a cost of Rs 147

Rs 1073 was paid as compensation for the land taken over for the District Munsiff's Court at Trivalur

The following repair works were carried out:—

(i) The portion of St Joseph's College buildings when the Tahsildar holds his office, at a cost of Rs 1,132

(ii) The Sub Registrar's Office at Tiruturaipundi, at a cost of Rs 86

(iii) Other pressing repairs to the extent of Rs 196.

XXIII Madura:- The following works were

were in progress.

(i) The construction of a Sub Magistrate's Cutcherry at Madura. Estimate Rs 17,889 Allotment Rs 9889. A sum of Rs 5,000 was expended up to the end of 1885–86 and Rs 9889 in 1886–87.

(ii) The construction of a Second Class Police Station House at Sapluw. Estimate Rs 4,850. Allotment Rs 2,350 Outlay Rs 2,056.

(iii) The construction of a Sub Registrar's Office at Sevinmangalam Estimate Rs 2864 Allotment Rs 950.

(iv) Improvements to the Dy Tahsildars Cutcherry at Tenchuly. Estimate Rs 3785 Allotment Rs 1000

(v) The construction of a Second Class Police Station House and one Head and five Constables huts at Ammainaickanur. Estimate Rs 3850 Allotment Rs 1200. out of which Rs 570 only was expended.

The following works were completed.

(i). A Dy: Tahsildars Cutcherry at Vedasundur. Estimate Rs 11,828. Total expenditure Rs 12,200

(ii)

(ii) A Dy Tahsildars Cutcherry at Uttiramapolcim. Estimate Rs 11993 Expenditure 12,547 Rs.

(iii) A Dy Tahsildars Cutcherry at Nellacottah. Estimate Rs 11,828 Expenditure Rs 12,319

(iv) A Sub Registrar's office at Usilampatty. Estimate Rs 2580 Expenditure 2611 Rs.

The allotment under Minor Original Works was Rs 1345, Expenditure Rs 1217; of this Rs 1055 was expended in constructing a second class Police Station house at Igalur and Rs 161 on securing the Treasury room of the Taluq Cutcherry at Sivaganga; and these two works have been nearly completed.

A sum of Rs 1800 was allotted to Repairs, the expenditure which amounted to Rs 2188 was utilized chiefly in:-

(1) repairing the Sub Collectors Bungalow, Taluq Cutcherry and P. W. Office at Dindigul

(2) maintaining the garden in Trimal Naicks Palace at Madura and

(3) fixing lightning conductors in the Palace at Madura

XXII

XXIII

Tinnevelly:- The following works were

were completed :-

(1) The construction of a Record Room and Improvements to the District Court House at Mallakulam. Estimate Rs 17,875 Expenditure Rs 12,183.

(11) The construction of a Registrar's Office at Mallakulam. Estimate Rs 4380 Expenditure Rs 4268

(3) The construction of a Sub Registrar's Office at Srivilliputtur. Estimate Rs 2705. Expenditure Rs. 2638

(4) Addition of a compound wall to the Sub jail at Sankaranainarkovil. Estimate Rs 4312 Expenditure Rs 3,817

The following Minor Original Works were completed or in progress:-

(1). Sub Registrar Office at Vattiyagiripur. Estimate Rs 2142 Expenditure Rs 2142

(2) Sub Registrar Office at Sattankulam Estimate Rs 2080 Expenditure Rs 2014.

(3) Third class Police Station house at Singhikulam Estimate Rs 1137 Expenditure Rs 1104.

(4) Drainage work for the District Jail at Palamcottah. Estimate Rs. 370 Expenditure Rs 368.

Repairs to the buildings below mentioned were completed :-

(1). Head Asst Collector's Bungalow

(2) D.P.W. Sub Divisional Officer's bungalow at Shenniadrue

(3) The Sub Collector's bungalow at Tuticorin — and some other petty works.

XXIV

XXII

III

Ramnad :- The expenditure during the year on work of converting connecting the Police Hospital at Ramnad into a residence for the Asst. Superintendent of Police was Rs 3152 against the grant of Rs 3239 The work was fully completed.

Godaveri (East) : The following works were completed or in progress :-

(1). Constructing a District Municipal Court House at Peddapuram ; estimate Rs 10,300; ~~The total~~ outlay ~~was~~ Rs 11686. ~~the expenditure amounting to Rs 1159.~~

(2). Sub Magistrates Cutcherry at Pittapuram Estimate Rs 8993 ; ~~total~~ outlay ~~was~~ Rs 10045.

(3). Water supply and improvements to the existing drainage of the central jail at Rajahmundry ; Estimate ~~as~~ Rs 33030 ; Outlay Rs 30599

(4) Constructing Registrar's office at Cocanada. Estimate Rs 4839 ; outlay Rs 4573.

(5) Constructing a Sub Magistrate's Cutcherry

Cutcherry at Tuni. Estimate Rs 9436; outlay Rs 5,709.

(6) Construction of a Dispensary at Bhadrachellum; Estimate Rs 4246; outlay Rs 839

(7) Constructing a residence at Dowlaishwaram for the Superintending Engineer; Estimate 22,400 outlay Rs 21,697.

(8) Constructing a residence for the Executive Engineer at Dowlaishwaram; Estimate Rs 12500 outlay Rs 8909. Work in progress.

(9) Improvements to the sea-customs building at Cocanada; Estimate Rs 4810; outlay Rs 4,820.

(10) Constructing a Sub Registrar's office at Pittapur; Estimate Rs 2,300; outlay Rs 2315.

(11) Constructing quarters for the Hospital Assistant attached to the D.P.W Dispensary at Dowlaishwaram; Estimate Rs. 605; outlay Rs 540.

(12) Extension to the Provincial Collee Rajahmundry: Estimate Rs 620; outlay Rs 526.

(13) Constructing a Second class Station house at Bhadrachellum Rs: Estimate Rs 1826; outlay Rs 1769

A sum of Rs 2000 was anticipated to be utilized for repairs to

to the Collectors Cutcherry at Cocanada and for other buildings but the Estimates for these works did not come in as they should have in time, hence the short outlay.

V **Godaveri (Central) Division** :— The construction of a Sub Registrar's office at Razole was in progress. Estimate Rs 2750 Expenditure Rs 2196.

IV **Godaveri (Western)**: A Sub Registrar's office at Penlapad was nearly completed: Estimate Rs 2710; outlay Rs 2679.

The following works were in progress:—

(1). Sub Registrar's office at Samulkot: Estimate Rs 3290; outlay Rs 163.

(2). Taluq cutcherry at Samulkot: Estimate Rs. 21,420; outlay 19,770

(3) Taluq cutcherry at Bheemavaram: Estimate Rs 22,650 outlay Rs 21,701.

II **Vizagapatam**: The construction of a residence for the Asst Superintendent of Police at Jeypore was completed: Estimate Rs 15,350; Outlay Rs 15,020

An expenditure of Rs 9060 was incurred in connection with the provision of

of additional accomodation to the Huzur Treasury at Vizagapatam against an estimate of Rs 9360. The work was completed and the building handed over to the Revenue Dept.

The following works were in progress:—

(1) A Police Station House at Komarada Estimate Rs 1500. ~~Expenditure~~ outlay Rs. 426.

(2) Additions and alterations to the Dy Tahsildar's office at Palkondah and the construction of a Police Station house in its compound: Estimate Rs 4920 outlay Rs 1876.

(3) Police Station house at Konapur: Estimate Rs 3895 outlay 2079

(4) Additions to the Dy Tahsildar's office at Bimlipatam: Estimate Rs 1000 outlay 947.

(5) Improvements to the District Court House at Vizagapatam: Estimate Rs 1861 ~~Expenditure~~ outlay Rs. 2231. The Executive Engineer stated that it was found necessary to do more work than estimated for, hence the excess.

A sum Rs 24000 was reserved to meet the cost of the Iron Bridges on the Bobbili

Bobbili-Ghat Road ordered from and to be paid in England but no notice has been received that this amount has been obliged.

The short outlay of Rs 1000 in this division

Under Repairs a short outlay of Rs 1000 was due chiefly to a saving in repairs to warders lines in the Lunatic Asylum Waltair, it having been decided not to put work in the roof of these huts.

I Ganjam: A building for the residence and office of the Executive Engineer at Chicacole, was purchased for a sum of Rs 1250, and thoroughly repaired. The estimate was Rs 3747; outlay Rs 3747.

XVIII

Presidency and Bangalore (contd)

New seats were provided to St. Matthias' Church, Vepery, at a cost of Rs 2,404. Estimate Rs 2,920

Rs 3,669 were spent on improvements to, and extension of, the verandah of the Main Record room, Government Office Fort St George.; Estimate Rs 4290.

The construction of the City Reserve Police

Police Lines at Pudupett was commenced and a outlay sum of Rs 5261 was incurred against the Estimate of Rs 27,785, in the collection of materials.

The construction of an Upper Storey to the office of the Deputy Commissioner of Police was commenced and an outlay of Rs 2537 was incurred in the collection of materials, against an Estimate of Rs 10,290.

The following works at Her Majesty's Penitentiary were commenced and in progress:—

(1) Quarters for the Hospital Assistants Estimate Rs 4726 outlay 4965 Rs.

(2) A new work shed: Estimate Rs 3,200: outlay Rs. 2,545.

(3) New roofs to the close prison cells: Estimate Rs 4,200 outlay Rs 2,290

(4) Twelve Solitary cells Commenced last year were completed: Estimate Rs 5,750 outlay Rs 5,308.

A sum of Rs 4,907 was Spent on an Estimate of Rs 2711 for ornamenting the ceilings of the nave of St. George's

Cathedral and the work was postponed for completion in 1887-88.

A commencement was made on the new gate way for St. Mary's Cemetery, and Rs 2992 were Spent on an Estimate of Rs. 6,285

The property known as the Government Female Normal School at Egmore was purchased from the Proprietor for Rs 12,000.

A Cottage for 12 lunatics and a block of six rooms for Native Criminals at the Lunatic Asylum were commenced and completed at an outlay of Rs 8,862 against an Estimate of Rs 9,630.

A sum of Rs 4493 was Spent at Madras on furniture for Government House at Madras, Guindy & Ootacamund.

Thirty two minor new walls were carried out at a cost of Rs 10,098.

One hundred and twenty five Repair Works at Madras and twelve in Bangalore were carried out. None of the

the works at Bangalore were of much importance.

The following are the more important repairs of those carried out in Madras.

(1) Repairs to the Government Secretariat buildings Fort St George: Estimate Rs 3635 outlay Rs 1054

(2) General repairs to Government House, Banqueting Hall, Marine Villa, and out houses attached: Estimate Rs 11,550; outlay Rs 11,960

(3). Repairs to the Lock Hospital Black Town: Madras Estimate Rs 6,755 Outlay: Rs 4249

(4) Repairs to the roofs of the P.W. Workshops and Stores and renewal of the roof of the Workshop foundry: Estimate Rs 6,855 outlay Rs 5495

A sum of Rs 536 was spent on alterations and additions to the Petroleum shed on the beach which was completed last year.

Under repairs a sum of Rs 298 was received from the Secretary Indian Home Committee for carrying out repairs to the Home and Rs 3422-6-5 from the Secretary Military Female Orphan Asylum for carrying out certain works to the Asylum buildings. Out of the first mentioned contribution a sum of Rs 282 was spent and the work completed. The other contribution was received only in March

P. T. O.

Circle put:- The upper storey of the Agricultural College at Sydapet for which an estimate of Rs 18,370 was Sanctioned

32

XXIII

XVII

Chingleput :- The lighthouse at the Seven Pagodas was in progress on an estimate of Rs 8765 sanctioned in S.O No 270 of 10th Oct 1886.

The work consists of :-

1- the construction of a stone platform for a fourth order light

2. the construction of Superintendents quarters

3. Do Do

Cascars huts

4 Do Do

two Sentry boxes

The upper storey of the Agricultural College at Saidapett for which an Estimate of Rs 18370 was sanctioned

(Seven Pagodas).

GOVERNMENT 33 MADRAS

£

126

sanctioned in March 1885 was commenced and completed, with the exception of the Tower and lightning conductors. The expenditure was Rs 16,096

Seven Mud Sea Walls were completed at a total cost of Rs 6,974.

The buildings at Government House, Guindy Park, and other buildings were repaired at a total outlay of Rs 15,502

XXI

XV

North Arcot :- The construction of a Sub Magistrate's Cutcherry with out-houses at Arthonam was in progress. The outlay was Rs 8,186 against an Estimate of Rs 14,245.

Improvements to the Sub Magistrate's cutcherry at Punganore were put in hand, and an outlay of Rs 2,410 was incurred, on an Estimate of Rs 4,480

Seven Mud Sea walls were

were in progress of which five were completed. The total outlay amounted to Rs 7,484.

Twelve Repair Works were carried out at a cost of Rs 5,301.

South Arcot :- A sum of Rs 1200 was spent on collecting materials for the construction of a Sub Registrar's Office at Villupuram. Estimate Rs 3020.

Eight Minor new works on which a sum of Rs 2636 was spent were in progress of which three were completed viz :-

(1) Sub Registrar's Office at Colundurpett

(2) Conversion of the office of the Asst: Superintendent of Police into a Sub Registrar's office at Tirukoilur.

(3) Lascars sheds in the compound of the South Arcot Divisional Office - Cuddalore.

Under repairs a sum of Rs 1985 was spent

A contribution by the Cuddalore Municipality of Rs 60 for Survey Establishment in connection with the preparation of an Estimate for a bridge across the Gaddelam river for was spent for the purposes.

A sum of Rs 14 being the balance of a contribution given by the same Municipality in 1885-86 for repairs to the powder Magazine at Ulundurpettai was utilized in refixing the lightning conductor.

Progress of Works

pages IV. Provincial communications

Nelgiris: Under this head the following works were completed:—

1. A new road up Mount Stuart at a cost of Rs 8427.

2. Improvements to the road from Potacamund to Gudalur

3. Rest-houses with out-houses on the ghat at the 9th mile below Coonoor at a cost of Rs 7,359

4. Widening and remetalling the ghat road from Kullar to Gudalur at a cost of Rs 3,671

5. A new bridge at Burliar was partly completed.

Vizagapatam:— The construction of the Potingi Ghat road was completed with the exception of the iron work for one of the two bridges, which has been ordered from England. Estimate Rs 4,56,581 Outlay Rs 4,34,639

Arrears of Rs. An Estimate of Rs.

Rs 2,72,700 was sanctioned for the construction of a road from Potinglii to Koraput. A sum of Rs 30,1440 was spent on the work, which was in slow progress, owing to great difficulties experienced.

The work of surveying and levelling the road from Koraput to Jagadalapur was put in hand. Plans and surveys of 35 miles beyond Koraput towards the Central Provinces were completed. Upwards of 100 miles still remained to be done. The expenditure amounted to Rs 1,012 against an estimate of Rs 1,500.

Under Repairs a sum of Rs 18,691 was expended in maintaining the Potinglii Ghat Road against a grant of Rs 18,170. The roads were maintained in fair order, and the damages done to the road by the heavy rains during the monsoon were repaired.

Godaveri (East). The navigation Works at Dumagudiem were maintained at a cost of Rs 7,982 during the year.

Presidency and Bangalore:-

A sum of Rs 9058 was paid to the Madras Municipality for the maintenance of the roads leading from the Fort to the Mount and Poonamallee.

V. Provincial: Miscellaneous Public Improvements

VI

Presidency and Bangalore: The estimate of Rs 104,618 for improvements to the South Beach promenade, viz the construction of a promenade from the Napier Bridge to Elliot's Road was completed during 1886-87. The total outlay amounted to Rs 105,383

A sum of Rs 7,837 was expended against an estimate of Rs 12,353 in extending the South Beach Marina. The brick-work in the retaining wall on the sea side was completed, the stone for coping to retaining wall collected, and about three quarters of the quantity dressed. The stone for the kerb on the road side was also collected and about one half the quantity dressed.

The following works were completed or in progress:-

(1) Planting the foreshore from

grass from the Napier Bridge to Pycrofts' Road with grass; estimate Rs 4768; outlay Rs 4748.

(ii) Continuing the stone dwarf wall along the western side of the South Beach road from Pycrofts' Road to the old Hindu cemetery; estimate Rs 11,834; outlay 9,335

Four bunds were thrown up across the Cooum river to keep the river bed covered with water up to the South Indian Railway bridge. An expenditure of Rs 896 was incurred on this account and a further outlay of Rs 835 on repairs to these bunds and the work of clearing the water between them of weeds. A total outlay of Rs 830 was spent on the general conservancy of the river.

Buckingham Canal Division

An outlay of Rs 417 was incurred on clearing trees on two Islands in the Adyar River. The work was in progress.

Nilgiris.

A sum of Rs 1,10,083 was expended on improvements to the Ootacamund water supply north of the lake. The work was in progress.

The Bazaar drainage scheme was fully completed

A sum of Rs 1720 was spent in improving the margin of the Ooty lake.

The Adam memorial fountain was completed at a cost of Rs 4,493

Under Minor Works:—

(1) A wall was built in the compound of the Sub-Magistrate's Court at Gudalur, at a cost of Rs 673

(2) The construction of a raised foot-path from Charing Cross Ootacamund to the market was commenced.

Under Repairs:— A sum of Rs 933 was spent on the escapes of Ootacamund and St. Lawrence lakes.

West Coast:—

The revetment constructed for the protection of the town of Ponani was extended to 520 feet and Rs 3295 expended against an estimate of Rs 4280. The work was in progress and the revetment

revetment almost completed.

Tanjore :- A masonry wall for the protection of Kumbakonam town on the south side of the Cauvery was constructed at a cost of Rs 2257 against an estimate of Rs 2,320

Chingleput :- A proposal of M. De'Closets for making an experimental Artesian boring in the Kantellian ~~river~~ basin was accepted in G. O. No 1128 W dated 5th May 1886. The work was commenced in June and the boring carried out to a depth of 200 feet, when there were some signs of water being likely to be tapped if the boring was made deeper. It has since been ordered to be carried to a depth of 300 feet

South Arcot :- The embankment of the Gaddelam river, for the protection of the town of Tirupapuliyar from floods, which was commenced last year was nearly completed. The total outlay was Rs 6,022 against the estimate of Rs 8,550.

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VII

V

IV

VI .. Local Incorporated

Krishna (Eastern) Division. The construction of a landing stage at Bezwada was in progress. Out of a grant of Rs 7,705 only Rs 4,098 were spent. The retaining wall was nearly completed and about one-third of the stone pitching to the bank carried out. The total expenditure amounted to Rs 17 875- against the estimate of Rs 21,566

Krishna (West). — The river and canal banks, used as roads were maintained in proper order at an expenditure of Rs 937 against a grant of Rs 1000

Materials were collected for the construction of a culvert under the good water channel at Nizampatam. Owing to the late sanction, a sum of Rs 120 only was spent on an estimate of Rs 900

Tanjore. Under this head a sum of Rs 5987 was spent in maintaining 109 miles of road in this District

Negapatam. A sum of Rs 3740 was spent in maintaining 42½ miles of road in this

VII. Local Excluded.

Residency and Bangalore:— The following major works were completed:—

(1) Paving the vaults of the Senate House: Estimate Rs 4,343; outlay Rs 3,715

(2) Closing the openings to the vaults of the Senate House: Estimate Rs 2,608 Outlay Rs 2,614.

Some new Minor works were executed at a total cost of Rs 1013, and repairs to the extent of Rs 799.

Rs 108 was expended in maintaining and laying out the ground near the Senate House into shrubs and plants.

Nellore:— The grant and outlay under this head in the Buckingham Canal Division were Rs 4,364 and 3,664 respectively. Improvements to the Superintendents quarters at Armeghan light-house were nearly completed; and the following works were in progress.—

(1) Further improvements and alterations to the Superintendents quarters at Armeghan lighthouse

(2)

this District

Trichinopoly: A sum of Rs 646 was spent in maintaining 20 miles of road in this District.

Godaveri (East): The total expenditure up to the end of the year on the Coconada = Munjair junction canal amounted to Rs 1,40,835 against an estimate of Rs 1,45,525

A sum of Rs 5,431 was spent on the construction of an iron lattice girder bridge at Venkatakrishnapuram lock of the Samalkot Canal, against an estimate of Rs 6,550. The bridge was completed and opened for traffic.

A short outlay of Rs 1076 under Repairs was due chiefly to estimates not having been received from the Executive Engineer Godaveri Eastern Division for the full amount of allotment.

(2). Constructing huts for the Lascars attached to the above named lighthouse

(3). Constructing huts for the Lascars attached to the lighthouse at Pulicat.

(4). Repairing the damages which these lighthouses received during the cyclone of November 1886.

Kristna (East):- The silt in the Salt Creek below the tidal lock at Manlipatam was cleared away. Rs 475 only was spent out an allotment of Rs 1560 owing to the allotment having been given late in the year.

Nellore: Ramnad:- The Port Officer's Bungalow at Paumben was repaired at a cost of Rs 921 against a grant of 934 Rs

Tinnevelly: Out of a grant of Rs 42 for forming a new earth plate &c to the lightning conductor attached to the light-house on Hare Island on Rs 7 were spent.

A grant of Rs 230 was sanctioned for repairs to the light-house superintendent's quarters at Kurrachee, which were completed at an outlay of Rs 228.

Ganjam:- An expenditure of Rs 21,065 was incurred in constructing an iron Pier at Gopalpur, against an Estimate of Rs 2,30,903. 70 bays were completed up to the end of March 87 against the Estimate of 93. A Revised Estimate for Rs 30,000 ± 1 has to be submitted.

Godaveri (East): A sum of Rs 1031, was spent in setting up new fourth order Dioptric light, at the Hope Island Light House, against an estimate of Rs 954.

Vizagapatam:- The second class order light for the Santapally Light House was unpacked and set up at a cost of Rs 308.

A new lightning conductor has been ordered from P. W. Stores Madras.

ADMINISTRATION REPORT

OF THE

PUBLIC WORKS DEPARTMENT, MADRAS,

(GENERAL, BUILDINGS AND ROADS BRANCH,)

FOR THE YEAR 1886-87.

I.—GENERAL REMARKS.

1. The administration of the department devolved, during the year under review, on Colonel J. O. Hasted, R.E., in succession to Colonel Shaw-Stewart, R.E., who resigned his position as Chief Engineer and Secretary to Government on the 8th September 1886.

The following is an extract from the Proceedings of Government recorded on the occasion:—

"In accepting Colonel Shaw-Stewart's resignation of his appointment as Chief Engineer and Secretary to Government, Public Works Department, from the date named, His Excellency the Governor in Council desires to place on record his very high appreciation of the service which that able and zealous officer has rendered to the State during the long period of his connection with the Public Works Department."

In succession to Colonel Hasted, Lieutenant-Colonel J. Pennycuick, R.E., officiated as Chief Engineer for Irrigation and Joint Secretary to Government from the 8th September 1886 to the 23rd March 1887, when Colonel H. R. Mead, R.E., returned from furlough and assumed the permanent appointment, with the rank of Chief Engineer, II Class.

2. *Grants and Expenditure.*—The original grant under *Imperial*, *Military Works*, was Rs. 6,44,400, the revised estimate was Rs. 6,25,400, and the expenditure amounted to Rs. 5,67,665.

Under *Imperial*, *Civil Works*, the original grant was Rs. 37,600, the revised estimate was Rs. 57,000, and the expenditure amounted to Rs. 42,712.

Under *Provincial* the figures were: original grant Rs. 21,00,000, revised estimate Rs. 22,84,000, and expenditure Rs. 21,56,317.

3. *Madras Harbour Works.*—As stated in the administration report for 1885-86, the Act to provide Trustees for the Harbour of Madras received the assent of the Viceroy and Governor-General on the 20th February 1886. The Act was brought into force from 1st June 1886, from which date the control of the harbour works and its establishment was made over to the Harbour Trust Board. For the remainder of the year, the audit of the construction accounts was conducted, as before, by the Examiner, Public Works Accounts.

The progress made on the harbour works was much less than was hoped for, but still a decided advance was accomplished during the year, and the new system of building and protecting the walls was thoroughly started.

The superstructure of the north pier was advanced by a length of 445 lineal feet, 645 concrete blocks having been used for this purpose, all thoroughly bonded together and secured by iron cramps to one another.

In addition to this work, 828 blocks, representing 24,382 tons of concrete, were deposited in the wave-breaker on the sea side of the north pier.

In the rubble foundations 98,560 tons of stone were deposited during the year.

The south pier superstructure was advanced by a length of 300 feet, 383 blocks being used in the construction. There were also 552¼ blocks placed outside to form a wave-breaker, and 16,242 tons of stone were deposited in the foundation. Much difficulty was experienced at the south pier in consequence of old blocks from the ruined work being thrown by the sea into the line of new foundations; but many of these blocks were removed in a complete state, and were deposited in the wave-breaker at each pier.

Concrete blockmaking progressed fairly well during the year, and 2,151 blocks of different shapes were made, but the full speed of blockmaking was not attained in any one month.

From Pallávaram quarries 201,451 tons of stone were received in the year under review, and the work at the quarry was kept up to the required degree of speed on the whole. In December 1886 the contractor for this branch of the work died suddenly, and a new contractor was appointed by the Harbour Trust Board.

The expenditure during the year was Rs. 8,14,798, divided as below:—

	Rs.
Works	7,93,359
Establishment	68,321
Tools and Plant	70,666
	9,32,346
Deduct debits to suspense heads of account	1,17,548
Net expenditure ...	8,14,798

The grant for the financial year was Rs. 10,19,100.

On 23rd May and on 8th and 9th November two severe cyclones passed near Madras and raised very high seas. No damage was done to the works, however, but the storm of November caused serious encroachments of the sea at Ráyapuram, and a portion of the enclosure wall of the Biden Home for sailors was destroyed.

On 23rd May two native vessels were totally wrecked, and some of the divers on the works behaved very gallantly in rescuing the crews, for which acts they were rewarded with silver medals by the Harbour Trust Board.

4. *Gopálpur Pier.*—At the end of 1885-86, almost all the materials for this work, as designed, had been delivered, and construction had progressed to the tenth bay. During the year the progress was not so great as had been expected, and the end of the year found the work carried out only as far as the seventieth bay (there will be ninety-three in all, exclusive of the prolongation of the pier shorewards, instead of a masonry abutment). As the work was carried on, it was found that differences in sea-bed levels from those which obtained when the design was made, necessitated the use, after the seventeenth tier, of longer piles than those provided for, and this rendered it advisable to put extra bracing to the end sections of the pier. Some hard ground was also met with, for screwing through which the contractors made additional claim. A revised estimate, therefore, became necessary, and was under preparation at the close of the year. The total expenditure on the work to the end of the year was Rs. 2,13,593.

5. *Cruz Milagre Dam.*—The only work carried out during the year in connection with the dam was dropping stones along the toe of the revetment on the back-water side, and raising the revetment on the lagoon side to a uniform level. The expenditure was Rs. 186.

6. *Mangalore Harbour.*—In March 1886, the Superintending Engineer submitted suggestions for cutting off the connection between the two rivers flowing into the harbour by means of strong bunds thrown across the backwater, each bund to contain a lock for the passage of country vessels. These proposals, the cost of which was roughly estimated at Rs. 1,50,000, were characterised by the Port Officer, Madras, as providing a very complete solution of the Mangalore difficulties, if only the intractable

nature of the rivers and the shifting propensities of the sea sand could be kept out of sight. He considered, at the same time, that the circumstances of the port did not justify the large expenditure involved, while the success of the proposed operations was far from certain. It was found, moreover, that the monsoon floods of 1886 had improved the condition of the harbour, and the Port Officer strongly advised that nature should be left to herself for some time longer. The Government thereupon resolved to defer action on the proposals for improving the port.

7. *Negapatam Harbour.*—Estimates for filling in the abandoned boat basin and for diverting the town drainage from the foreshore were under preparation by the Public Works Department at the close of the year, and a scheme for the drainage and water-supply of the town was under investigation by the Executive Engineer.

8. *Bangalore Water-supply.*—The proposals of this Government for improving the water-supply of the troops at Bangalore, a brief sketch of which was given in the administration report for 1885-86, were laid before the Government of India in September 1886, and at the close of the year no reply had been received. The calingul ih of the Halsur tank was being raised a foot by the municipality of Bangalore, with a view to increase the storage capacity of the tank, and improvements to the upper Halsur and the lower Miller's tanks was also being carried out.

9. *Ootacamund Water-supply.*—The improvement of the water-supply of Ootacamund was one of the projects recommended by the Committee of 1881. Detailed estimates, amounting to Rs. 1,70,000, for improving the water-supply to that portion of the station lying to the north of the lake were completed by the Public Works Department in December 1884, but owing to the inability of the municipality to raise the requisite funds, no action could be taken towards putting the work in hand. The cost of the water-supply scheme for the entire station was estimated approximately at 2½ lakhs, half of which sum the Government proposed to contribute, but on further consideration, in June 1886, they resolved to carry out, from Provincial funds, so much of the project as related to the northern side of Ootacamund, and to leave the portion relating to the southern side, estimated to cost Rs. 75,000, to be dealt with by the municipality. A grant of Rs. 1,35,000 was allotted, and arrangements were at once made to commence the work. The scheme provided for improving and extending the catchment area of the Marlimund reservoir, and for delivering the water to the inhabitants through iron pipes, instead of the existing open channels. At the end of the year, the service reservoir below Snowdon House and the duct for conveying water from the additional gathering ground near Snowdon to Marlimund were nearly completed, while the iron pipes, whose arrival had been seriously delayed by the break down of the steamer conveying them, were daily coming in. The expenditure on the work during the year amounted to Rs. 111085

10. *Artesian Boring in the Kortalayar Valley.*—The experiment of sinking an artesian well in the People's Park at Madras having failed, Monsieur A. P. deClosets recommended that a further experiment should be made in the alluvial valley of the Kortalayar, not far from the head of the canal conducting the water of that river into the Cholavaram and Red Hills tanks. Monsieur deClosets expressed strong hopes of success in that locality, and Dr. King, Superintendent, Geological Survey of India, and Mr. Bruce Foote, of the same department, having pronounced the proposal to be a reasonably promising one on geological grounds, the Government authorised a trial boring to be made under Monsieur deClosets' superintendence at a site suggested by Mr. Bruce Foote, slightly different from that selected by Monsieur deClosets. The work was commenced at the end of June 1886, and an ascending sheet of water was struck at a depth of 40 feet. As this, however, did not rise to more than 3 feet from the surface it was considered advisable to continue the boring, and, in December 1886, a depth of 153 feet had been reached. A fresh estimate for continuing the boring 200 feet was then sanctioned; and at this depth, which was reached before the close of the official year, although ascending water had not been tapped, the conditions continued to be favorable. The extension of the boring to 300 feet was therefore authorised, and a revised estimate was called for. The expenditure to the end of March amounted to Rs. 3,359.

11. *Wynaad Communications.*—Good progress was made on the work of reforming the Calicut-Vayitri road. The collection of metal in the 12th, 16th and 17th miles was nearly completed, and a good part of that required in the 11th, 18th, 19th, 20th and 21st miles, while the opening of all catch drains was nearly finished. Many sites of tunnels were marked out, some were in progress, and materials were being collected at the site of others.

The iron-work for all the bridges on the road was received from England, and that for the Kodangom Payu bridge carted to site. About three-fourths of the Tambracheri ghât was finished, and the remainder was in good progress. The great land slips, which occurred in July and August 1886, caused much extra work in special repairs, but all removeable matter had been taken away, and all dangerous trees cut down. Strong and well built revetments were made to support the road. The total grant for the year for work on the Calicut-Vayitri road, including special repairs, amounted to Rs. 1,35,085, while the expenditure was Rs. 1,35,450.

The only work done by the department on the Vayitri-Gúdalúr road was in connection with the Sholadi bridge, the construction of which was commenced in 1885-86. During 1886-87 a large quantity of stone and other material was collected at site, the iron-work was received from England, and the masonry commenced. The expenditure was Rs. 12,425, against a grant of Rs. 16,991.

The Ootacamund-Gúdalúr road was completed during the year, with the exception of a few revetments and parapets, and was in excellent order.

12. *Potinghi-Koraput Road.*—The progress on this work was very slow owing to the extreme unhealthiness of the locality. Every subordinate sent to it was shortly invalided with fever. The Assistant Engineer, Mr. Knowles, though frequently suffering from fever, remained at his post, but without adequate subordinate assistance he could not do very much. Labor was also very difficult to obtain along the line of road.

The iron-work for two bridges on the Potinghi-Koraput road and for one bridge on the Potinghi ghât was ordered from England.

The wheeled traffic on the Potinghi ghât has increased considerably, and averaged during the year 2,316 carts a-month. The effect on the country above the ghât must be great. The Collector, writing from Koraput in March 1886, said "carts come by the bungalow where I am now writing, and where I have in former days longed for even two carts to help me in my work, literally in hundreds."

Surveying and levelling for a continuation of the road from Koraput to Jagdalpur was carried out under considerable difficulties owing to the unhealthiness and wildness of the country. Survey and plans for 35 miles were, however, made.

13. *Road from Cumbum to the foot of the Gúdalúr-Peermade ghât.*—The improvements to this road, estimated to cost Rs. 90,507, were previously in the hands of the District Board, who were carrying out the work from funds supplied by the Public Works Department. Owing to insufficient supervising establishment, the progress was very slow, and, at the end of 1885-86, the work was ordered to be re-transferred to the Public Works Department for execution. During 1886-87, the progress was not much more satisfactory than in the previous year. The expenditure to the end of 1885-86 was Rs. 46,375, and that in 1886-87 was Rs. 9,204, against the original budget grant of Rs. ~~12,285~~. Several of the bridges on the road were nearly completed or in progress, and materials were in preparation.

14. *Bridge over the River Vaigai at Madura.*—The estimate for this bridge, amounting to Rs. 2,46,600, was sanctioned in February 1886, and the work was at first under the direct agency of the District Board. In October 1886, however, it was transferred to the Public Works Department for execution, funds being supplied by the District Board. On the 8th December 1886, the foundation stone was laid in the left abutment of the bridge by His Excellency the Viceroy. When the work was taken over, a siding from the stone quarry to the bridge had been almost completely laid, and pumping and mortar grinding machinery had been procured. Work was not begun in earnest until the end of the Christmas holidays, when the piers were commenced, and in the following three months, six piers and the flooring

between them were raised to plinth level. The next four were in progress. Work was somewhat retarded by heavy rain on the 23rd March, when fine weather might have been expected, but fortunately no actual damage to the work occurred. Various minor changes in the design were found necessary, and as the rates originally allowed were found insufficient, a revised estimate became necessary, and was under preparation at the close of the year. The expenditure during the year was Rs. 27,171, against a grant of Rs. 27,143.

15. *Improvements at Ootacamund.*—The greater part of the land between the margin of the lake and the carriage road was acquired by Government, and was being fenced in at the close of the year. Outlay was also incurred in improving the appearance of this land by clearing it of wattle and scrub jungle.

A new road round Mountstuart Hill from Messrs. Oakes and Company's premises to the market was made at a gradient of 1 in 20, and proved a great convenience to the residents. A raised footpath along the road from Charing Cross to the market was also under construction.

16. *Improvements to the South Beach, Madras.*—The extension of the promenade from Elliot's road to St. Thomé, a distance of 1,500 feet, was in progress. This section will complete the promenade from the Napier bridge to St. Thomé, a total distance of 10,666 feet. The extension of the stone dwarf wall along the side between Pycroft's road and the Hindu cemetery was also in progress. The unsightly fishing village to the south of the Presidency College was entirely removed, and the ground levelled; and a new village for the fishermen was constructed to the west of the canal. The many difficulties connected with the removal of the fishermen were successfully overcome by the assistance rendered to the department by Dewan Bahadur R. Raghunatha Row. The municipal sewage farms, adjoining the fishing village and extending to the Hindu cemetery, were taken over and closed for cultivation, and cremation in the Hindu cemetery was stopped at the end of the year.

17. *Tirumal Naick's Palace, Madura.*—The total sanction for the restoration of this building and its adaptation for public offices amounts to Rs. 3,31,985, and the expenditure up to 31st March 1886 was Rs. 2,82,836. The works in progress during 1886-87 were on the undermentioned estimates :—

		Rs.
(*a*)	Completing restoration	1,01,500
(*b*)	Locating the judge's court	13,390
(*c*)	Do. the collectorate	51,009

Of these, the first and second were fully worked out, and work on the third estimate was done to the extent of Rs. 22,104. The total outlay on the palace works to the end of 1886-87 was Rs. 3,11,649.

18. *St. Joseph's College Buildings at Negapatam.*—These buildings, formerly the property of the Jesuit Mission, were purchased by the Government in September 1886, for Rs. 30,000, for the accommodation of the undermentioned public offices :—

Head Assistant Collector.	Tahsildar.
Executive Engineer.	Sub-Judge.
Assistant Superintendent of Police.	Sub-Magistrate.
District Munsif.	

At the close of the year, the offices of the Executive Engineer and the tahsildar were located in the buildings, and estimates were under preparation to meet the requirements of the other offices.

19. *Military Churches at Wellington.*—An estimate, amounting to Rs. 38,161, for constructing a Protestant church at the military station of Wellington, was sanctioned by the Government of India in July 1884, and the work was commenced in the same year. As the work progressed, it was found that the cost had been under-estimated, and a revised estimate, amounting to Rs. 47,810, was finally sanctioned. The building was completed in 1886-87 within the amount of the revised estimate, and divine service was held in it for the first time in March. The church is on a design by the late Lieutenant-Colonel Morant, R.E., and though originally intended to contain 300 sittings, is found to accommodate conveniently 450. The station was previously without a place of public worship, and services were held in a barrack-room.

The construction of a Roman Catholic military church at the same station, to contain 200 sittings, was sanctioned in December 1886. The work is being carried out by the Roman Catholic chaplain from funds supplied by Government, and under the supervision of the Executive Engineer.

20. *New Building for the Breeks' Memorial School, Ootacamund.*—The accommodation in the Collector's office having long been found inadequate for the several departments located in it, it was proposed to provide the additional accommodation required by taking over the existing Breeks' school buildings, which are ill adapted for purposes of the school and in objectionable proximity to the public offices, and converting them into a court for the sub-judge and an office for the registrar. The school committee agreed to the alienation of the buildings on the condition that a new building for the school be provided by Government, and an estimate, amounting to Rs. 38,180, for a new school-house, on a handsome design, was accordingly sanctioned. A site was selected on Mountstuart, commanding the Coonoor road, and the work was commenced in August 1886. By the end of the year, good progress had been made, the expenditure having been Rs. 21,750.

21. *Adam Memorial Fountain, Ootacamund.*—A sum of Rs. 13,770 having been raised by public subscription for the erection of a memorial at Ootacamund to the late Right Honorable W. P. Adam, Governor of Madras, and the Committee having procured from England, at a cost of £830, a handsome iron fountain, the *fac simile* of one in front of the Town Hall at Leeds, the Government undertook its erection, the construction of a stone basin, and its connection with the Ootacamund water-supply system. The total estimate for the work amounted to Rs. 16,850, the difference between which sum and the amount of subscriptions was contributed by the Government. The fountain was erected before the end of the year, on a site in front of the Collector's office, and is an ornament to the station.

22. *Additions to the Madras College of Engineering.*—To provide the additional accommodation necessary to meet the requirements of the sanctioned scheme for the reorganization of the College, an estimate, amounting to Rs. 90,066, was sanctioned in September 1886. Funds were provided late in the official year, but before its close rapid progress had been made. The new buildings will form an extensive addition to the south end of the College and will be in general keeping with the façade of the old palace.

23. *Public Works Stores.*—Mr. A. Joyce, Executive Engineer, 3rd grade, who was appointed to the charge of the Public Works Stores and Workshops on Mr. O'Connell proceeding on furlough to Europe, assumed charge on the 9th March 1887, and at once entered on taking stock of the stores. The whole of the articles were counted and weighed, thus completing the checking of the entire stock, which was found correct, and corresponded with the ledger balances. Mr. Joyce also examined the machinery and the plant in the custody of the storekeeper of machinery and found them correct. This machinery belongs chiefly to the Ordnance and Paper Stamping Departments. An attempt was made to dispose of it, and several of the minor articles of stores appertaining to the Ordnance Department were removed by that department, while the remainder, consisting principally of machinery, was offered for sale.

When this has been disposed of there will be no necessity to retain the present establishment, which costs Rs. 112 per mensem.

The opening balance of stock in the Public Works Stores on 1st April 1886 was Rs. 2,04,057, and the receipts from all sources during the year amounted to Rs. 74,990, which, with the opening balance, made a total of Rs. 2,79,047.

The issues during the year amounted to Rs. 67,869, and the balance on the 31st March 1887 was Rs. 2,11,179, or Rs. 7,122 more than the opening balance.

The Buckingham canal route was made use of during the year in forwarding Public Works and Railway stores. No crane has as yet been erected at the basin, but one of the masonry platforms was widened to admit of a 5-ton crane being placed on it. The inconvenience to this department in loading boats with cases and packages weighing from one to two tons was very great. The Assistant Port Officer, however,

placed a 2-ton pier crane at the disposal of this department, whereby much of the difficulty was overcome, and now that the platform is ready for use, the 2-ton crane will be returned for service on the pier.

Much work continued to be done by the Port Storekeeper's Department in receiving and despatching stores to both the Bellary-Kistna and Cuddapah-Nellore State Railways. The latter line closed its receving depôt at Tippaguntapollium, so that all stores hereafter will be sent by rail to Rénigunta. The Bellary-Kistna Railway, however, opened up a depôt at Chebrole, where all stores for the Kistna branch will be sent to be forwarded to Guntúr.

During the year 8,339 tons of railway materials and stores were received from England, and 1,307 tons from Rangoon.

There were 43 consignments from England, 19 from Calcutta, 9 from Rangoon, making in all 71 consignments received and despatched. The value of the stores from England amounted to £78,922-0-9, that from Rangoon Rs. 35,974-2-0, and of sundries received from Calcutta the value is not known.

24. *Public Works Workshops.*—New forms of accounts were introduced for adoption in the workshops from 1st April 1886, and the administrative accounts of the shops will be submitted to Government by the Examiner of Public Works Accounts.

There, as in the Stores Department, Mr. Joyce, on assuming charge, took stock of the workshop stores, and the checking of the whole stock was completed.

The following additions were made to the Workshop's machinery, by indents on the India Office:—

2 Stocks with taps and dies to cut screws.
1 Revetting machine compound lever.
1 Circular saw for cutting hot iron.

25. *Government Brick and Tile Manufactory, Madras.*—In addition to the bricks manufactured for Government public works, 2,97,000 bricks were supplied to the Madras Municipality, on payment, for the drainage works, and 92,950 bricks for other municipal purposes; 6,21,675 bricks were also supplied to the Town Hall and Madras Christian College.

Six new drying-sheds were constructed, and four Claytons' brick presses were obtained from England. With these machines excellent bricks are being moulded, cheaper than those made by the old hand-presses. A flooring tile press for manufacture by the dry process was received, and also a machine for making leaden sashes for stained-glass windows.

26. *Government Lithographic Press.*—The value of work turned out during the year by the Government Lithographic Press was Rs. 15,529, while the working expenses amounted to Rs. 11,553.

27. *Transfer of Bridges at Madras to the Municipality.*—In the administration report for 1885-86, reference was made to the resolution of the Government to transfer to the municipality the care and maintenance of the bridges in Madras, which had previously been in charge of the Public Works Department. The transfer took effect from 1st April 1886, the Government making an annual grant to the municipality of Rs. 3,381, being the average yearly cost of repairing the bridges. On the transfer being effected, it was found that the maintenance grant did not include the cost of repairs to the bridges over the Buckingham canal within municipal limits. These bridges were therefore retained in charge of the Public Works Department, during 1886-87, and their transfer to the municipality was ordered to have effect from 1st April 1887, the maintenance grant being increased by Rs. 1,062. The Grant Duff and Revenue Board bridges within the Chepâk Park were retained in charge of the Public Works Department, their maintenance being entrusted to the Consulting Architect.

28. *Revision of the Madras Public Works Code.*—The second edition of the Code having become much encumbered with standing orders, the preparation of a third edition was ordered at the end of 1885. The work of revising the text of the Code was begun in January and completed in June 1886; and the third edition was distributed in October and came into force from 1st December 1886. The laborious work of revision was done, mainly out of office hours, by the members of the Examiner's

office entrusted with it, and it was thus completed in a comparatively short space of time. The new edition, in many respects, is an improvement on the second edition, while the cost, chiefly owing to the adoption of inexpensive binding, was very much less.

29. *Inspection of Light-houses.*—The light-houses at the undermentioned places were inspected and reported on by the Chief Engineer in January and February 1887 :—

Mangalore.	Madras.
Tellicherry.	Pulicat.
Cannanore.	Armeghon.
Calicut.	Point Divi.
Cochin.	Hope Island.
Muttum.	Vakalapudi.
Tuticorin (Hare Island).	Santopilly.
Pamban.	Calingapatam.
Negapatam.	

30. *Grant of Courtesy Titles to Native Officers and Subordinates of the Public Works Department.*—In September 1886, the Government of India sanctioned the grant of the title of Rai Bahadur, Rao Bahadur, or Khan Bahadur *ex officio*, to all native gentlemen in the Public Works Department holding the substantive rank of Executive Engineer. Assistant Engineers and Upper Subordinates who attain the rank of Honorary Assistant Engineer may receive, *ex officio*, the title of Rai Sahib, Rao Sahib or Khan Sahib, and will be eligible for the title of Rai Bahadur, Rao Bahadur, or Khan Bahadur on the recommendation of the Local Government. Other Upper Subordinates of higher rank than overseer will be eligible for the title of Rai Sahib, Rao Sahib, or Khan Sahib, if they have held with credit for five years the charge of an important sub-division and are recommended for the distinction by the Local Government.

In accordance with these orders, the grant of the following *ex officio* courtesy titles to the undermentioned native gentlemen was notified in October 1886 :—

S. Subharayachariyar, B.C.E., Executive Engineer, 4th Grade, Rai Bahadur.
S. Gopala Krishna Aiyar, B.C.E., Assistant Engineer, 1st Grade, Rai Bahadur.
C. Muhammad Qasim Sahib, Honorary Assistant Engineer, Khan Sahib.
S. A. Subrahmanya Aiyar, B.A., B.C.E., Assistant Engineer, 3rd Grade, Rai Sahib.
T. Subrahmanya Pillai, Honorary Assistant Engineer, Rai Sahib.

Mr. S. Gopala Krishna Aiyar was subsequently granted, *ex officio*, the higher courtesy title of Rai Bahadur, and Mr. T. Subrahmanya Pillai was granted the personal title of Rai Bahadur in connection with the Jubilee honors of 16th February 1887.

31. *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 officers of the Public Works Department.

32. *Appointment of Consulting Architect to Government.*—During Mr. R. F. Chisholm's incumbency of this appointment, a special and consolidated rate of salary was attached to it, but after the retirement of that gentlemen, the Secretary of State for India sanctioned the continuance of the appointment as a permanent measure on the following conditions: that the appointment shall be open to an officer of any rank below that of Chief Engineer, and, should the officer be a Superintending Engineer, or should he rise during such employment to the rank of Superintending Engineer, he shall be treated as a supernumerary and receive promotion in his turn. On those conditions, Lieutenant-Colonel J. L. L. Morant, R.E., A.R.I., B.A., was gazetted to the permanent appointment on the 16th July 1886, but shortly afterwards intimation was received of his death in Australia on the 17th June 1886. No other officer of the Madras Public Works Department was found to possess the special qualifications needed for the post; and, on the nomination of the Government of India, Mr. J. W. Brassington, Executive Engineer, 3rd Grade, Rajputana, was appointed Consulting Architect on six months probation. Mr. Brassington assumed charge of the office on the 23rd November 1886.

33. *Departmental Establishment.*—At the suggestion of the Finance Committee, the Government, in the Financial Department, restricted the Provincial share of the cost of Public Works establishment to Rs. 6,50,000. The grants for public works under Imperial heads of service for the year 1887-88 were, at the same time, considerably less than those of previous years. In framing the preliminary issue of the Provincial budget for 1887-88, it was found, as a consequence, that the contributions from other funds on account of establishment, amounted to only Rs. 13,70,614, against Rs. 16,35,424 in the previous year; and the total provision for establishment including the Provincial contribution, amounted to Rs 20,20,614, against Rs. 24,59,156, the grant for 1886-87. A large reduction of establishment therefore became necessary, and, at the end of February 1887, the services of the entire temporary establishment attached to the department were dispensed with. This temporary establishment had been gradually entertained during several preceding years to meet the expanding operations of the department, and, at the time of its reduction, consisted of seventeen temporary engineers, about eighty upper subordinates, and a large number of office and inferior servants, the whole costing about three and a quarter lakhs per annum. The reduction was carried out in the midst of the best working season and caused much inconvenience to the department, but to the credit of administrative officers it may be said that it was effected without friction of any kind.

34. *Divisional Changes.*—The reduced grant for establishment rendered it necessary to close the four Tank divisions in the beginning of March, and the following changes were ordered at the same time. The Ganjam and Rushikulya divisions were amalgamated, for account purposes, under the designation of the Ganjam division; the temporary Central Godávari division was combined with the Western Delta division; the temporary Gudiváda division was amalgamated with the Eastern Kistna division; the Sangam Project division was incorporated into the Nellore division, and the temporary Ramnad division was amalgamated with the Madura division. The Godávari Central division was subsequently constituted a permanent division, in lieu of Sangam, and arrangements were being made to reconstitute the Ramnad estate works into a separate temporary division. Late in the official year, the Government of India sanctioned an additional grant of three lakhs for tank restoration operations, and proposals were under consideration for continuing the tank scheme with more economical establishments than had previously been employed.

The other divisional changes which occurred during the year were the closure, in August 1886, of the "B" Project division, in the IV Circle, and the "C" Project division in the III Circle. In the VI Circle, the Lower Coleroon and the Cauvery and Vennar Project divisions ceased to be independent divisions, and the works were merged into the ordinary divisions.

35. *Casualties, Engineer Establishment.*—During the year, the department suffered two severe losses by death. Lieutenant-Colonel J. L. L. Morant, R.E., Executive Engineer, 1st grade, and Superintending Engineer, 2nd class, temporary rank, died in Australia on the 17th June 1886 while on leave; and Mr. T. D. Harris, Executive Engineer, 1st grade, who had risen to that rank from the subordinate grades, died at Waltair on the 4th June 1886.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

. **Ganjam.**—A sum of Rs. 1,358 was spent in repairing military hospital, choleraand small-pox shed, and the floor of quarter guard at Berhampore, and on account of house-rent to military medical subordinates at Berhampore and Chicacole.

. **Vizagapatam.**—A sum of Rs. 2,573 was expended on the maintenance and repair of all military buildings and roads in the cantonment of Vizianagrum.

. **Godavari (East.)**—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 692.

. **Godavari (West.)**—A sum of Rs. 80 was disbursed on account of house-rent to the Civil Apothecary.

. **Bellary.**—The apothecaries' quarters (double) at Bellary were completed, with the exception of painting the doors and windows. The estimate was exceeded owing to the reconstruction of old foundations and basement; to the provision of sill slabs over doors and windows, not provided for in the original estimates; flooring with slabs; and substitution of new doors and windows for old ones rejected. The outlay amounted to Rs. 6,262 against the estimate of Rs. 6,222. A revised estimate of Rs. 7,856 was since sanctioned in G.O., No. 1250 W., dated 9th May 1887.

. Stores and timber, to the value of Rs. 1,084, were collected for the collar-maker and wheeler's shop at Bellary; estimate Rs. 5,663. The contractor, who undertook to spend Rs. 3,000 on the work before the end of the official year, failed to do so, owing to the allotment having been given late in the year.

. The following minor works were carried out:—

(1) The drainage system of the European Infantry barracks was improved at a cost of Rs. 1,721.

(2) The coffee-shop of the Royal Artillery was re-roofed with Mangalore tiles at a cost of Rs. 948, and a temporary forge and shoeing shed erected for the Royal Artillery at a cost of Rs. 345.

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

(1) The bakery at Wellington was nearly completed; estimate Rs. 35,850, expenditure Rs. 30,074.

(2) Two lying-in wards were added to the station hospital at Wellington at a cost of Rs. 2,909; estimate Rs. 3,036.

(3) Quarters for a barrack sergeant at Wellington were commenced; estimate Rs. 7,348, expenditure Rs. 3,213.

(4) The Lawrence Asylum buildings were improved at a cost of Rs. 4,595; estimate Rs. 5,790.

(5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. 2,389 and Rs. 7,040, respectively.

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

(1) Constructing two cisterns to hold water for fire-engines; fixing a weigh-bridge and constructing a shed over it in the stud lines; and improving the sepoy's lines at the Remount Depôt, Matigiri. The estimates amounted to Rs. 1,330, 172 and 230, respectively.

(2) Improving the rest-house at Pódanúr; estimate Rs. 1,190.

. Repairs to the military buildings at the Remount Depôt at Matigiri and to the rest-houses at Pódanúr and Mettupálaiyam were carried out at an outlay of Rs. 5,660.

West Coast.—The entire project of accommodating troops at Malapuram was fully completed according to the revised estimates. The buildings finished and occupied during the year were—

1. Block No. 2 with out-houses.
2. Ward for contagious diseases.
3. All the covered passages.
4. The drains.
5. Converting the wood godown into a bakery.
6. Cattle and sheep pen.

The allotment for several works in connection with the barracks was Rs. 8,315, of which Rs. 7,691 were expended, bringing the total expenditure at the end of the year to Rs. 1,22,672 against the estimate of Rs. 1,80,102.

The following works were completed or in progress :—

(1) Improvements to the elephant shed at Malapuram were in progress; estimate Rs. 2,060, expenditure Rs. 810.

(2) A store-room for the Madras Infantry regiment stationed at Quilon was almost completed; estimate Rs. 9,334 against an outlay of Rs. 6,653.

(3) The bomb-proof roof of the military magazine at Quilon was covered with an additional tiled roof to prevent the leakage frequently complained of. The lightning conductor of the magazine was thoroughly renewed. The aggregate cost of the two works amounted to Rs. 3,210 against an estimate of Rs. 3,880.

(4) The old jailor's quarters at Calicut were improved; estimate Rs. 1,200, outlay Rs. 1,076.

(5) The family quarters of No. 2 block of West Hill barracks at Calicut were adapted for quarters for the Commissariat Sergeant and store-room; estimate Rs. 650, outlay Rs. 599.

(6) The lightning conductors on the magazine at West Hill barracks were renewed at an outlay of Rs. 590 against an estimate of Rs. 730.

(7) The supplemental estimate of Rs. 1,170 for converting the old cells in the Cannanore Fort into a double magazine and providing shelves and racks, &c., was worked out, bringing the total outlay to Rs. 3,233 against the estimate of Rs. 3,590. The expenditure under repairs, military, amounted to Rs. 32,307 against an allotment of Rs. 33,497.

North Arcot.—No major or minor works were carried out during the year.

A sum of Rs. 2,977 was spent under repairs, including the usual annual contribution of Rs. 1,000 paid to the municipality on account of the maintenance of Vellore cantonment roads.

South Arcot.—Rupees 425 were spent out of a grant of Rs. 444 on account of compensation for quarters for three military apprentice overseers and rent of quarters for the Sergeant Instructor of the South Indian Railway Volunteer Rifle Corps.

Chingleput.—The following works in connection with the new Royal Artillery barracks at the Mount were completed :—

(*a*) Barrack, east block.
(*b*) Barrack, west block.
(*c*) Three wash-houses.
(*d*) Three kitchens.
(*e*) Wheeler shop.
(*f*) Store-room.
(*g*) Latrine.

The construction of a recreation-room, coffee-shop, plunge-bath, and drains at the barracks of the Artillery at the Mount was completed. The total outlay was Rs. 1,37,694 against an estimate of Rs. 1,46,910.

Granite head and heel stones were provided and three gearing rooms were constructed in the stables of the Royal Artillery at St. Thomas' Mount. The total outlay was Rs. 22,914 against an estimate of Rs. 23,389.

The construction of a coffee-shop with kitchen for the upper storey barracks, St. Thomas' Mount, was in progress. Rupees 2,165 were expended on an estimate of Rs. 6,690.

. Seven minor new works were completed at a cost of Rs. 1,232.

. The expenditure on minor new works and repairs was Rs. 27,620, and the total expenditure under repairs, including barrack-master's petty repairs, compensation for quarters, &c., was Rs. 36,236.

. The principal buildings repaired were—

(1) The south barracks at the Mount; estimate Rs. 3,020, outlay Rs. 2,817.
(2) Garrison store-room in the staff office at Poonamallee; estimate Rs. 540, outlay Rs. 499.
(3) Station hospital and out-houses at Poonamallee; estimate Rs. 860, outlay Rs. 782.
(4) Three blocks of the west barracks and its out-houses at Mount; estimate Rs. 1,360, outlay Rs. 1,355.
(5) Station hospital and its out-houses at Mount; estimate Rs. 910, outlay Rs. 882.
(6) Roof of ~~Sercantg~~-Major's quarters at Poonamallee; estimate Rs. 790, outlay Rs. 742.

. **Presidency and Bangalore.**—The following works were completed:—

(1) The conversion of A block family quarters, Fort St. George, into single men's barracks; estimate Rs. ~~13,400~~, outlay Rs. 5,955.
(2) Additional work to the coast batteries and the maintenance of the casuarina plantations on the beach for the purpose of screening the coast batteries at a cost of Rs. 1,965; total outlay Rs. 8,184, estimate Rs. 8,240.
(3) Guard-rooms, kitchens and latrines for the coast batteries; estimate Rs. 6,025, outlay Rs. 5,870.
(4) Improvements to the armament, Fort St. George; estimate Rs. 42,035, outlay Rs. 37,435.
(5) The reconstruction of a wheel-wright shop at the Gun Carriage Factory; estimate Rs. 7,370, outlay, Rs. 6,712.
(6) Improvements to the wash-houses at the parade barracks, Bangalore; estimate Rs. 12,500; outlay Rs. 10,720.
(7) Additions to the military prison at Agram; estimate Rs. 8,325, outlay Rs. 7,478.
(8) Cavalry stables at Agram for 66 additional horses; estimate Rs. 5,930, outlay Rs. 5,560.

. The following works were in progress:—

(1) Conversion of racket-court in Fort St. George into a covered gymnasium; estimate Rs. 11,890, outlay Rs. 2,600.
(2) Improving the water-supply of Fort St. George; estimate Rs. 6,445, outlay Rs. 6,298.
(3) Public buildings for a regiment of Native Infantry on the Arab lines plateau at Bangalore; estimate Rs. 21,636, outlay Rs. 15,188.

. Twenty-one minor new works at the Presidency and thirty-six at Bangalore were commenced and completed during the year at a cost of Rs. 10,404.

. Two hundred and ninety-two repair works at the Presidency and two hundred and five at Bangalore were carried out during the year.

. Payments, amounting to Rs. 19,297, were made to the Madras Municipality on account of house, water, and light taxes on Government military buildings outside Fort St. George, and Rs. 6,000 on account of maintenance and repairs to the esplanade and Fort beach roads.

. At Bangalore Rs. 1,200 and Rs. 6,300 were paid to the Cantonment Municipality for the conservancy of the main sewer and the maintenance of the military roads.

. The total outlay under repairs was Rs. 1,21,497 at the Presidency and Rs. 49,051 at Bangalore.

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

(1) Repairing and lime-washing walls of European Infantry barracks, Fort St. George; estimate Rs. 3,690, outlay Rs. 1,409.

(2) Re-roofing mess-house, Fort St. George; estimate Rs. 6,400, outlay Rs. 4,081.

(3) Repairing and lime-washing public quarters at the Gun Powder Factory; estimate Rs. 3,570, outlay Rs. 811.

(4) Thorough repairs to the Government granary on the beach; estimate Rs. 8,800, outlay Rs. 6,897.

(5) General repairs and covering the floor of the Army Clothing Department office with asphalte; estimate Rs. 2,670, outlay Rs. 2,327.

(6) Supplying gravel to the parade-ground and sepoys' court-yards of the Native Infantry lines, Perambúr; estimate Rs. 6,490, outlay Rs. 6,308.

. The following repair works were carried out in Bangalore:—

(1) Painting doors and windows of Cavalry Agram barracks; estimate Rs. 3,975, outlay Rs. 3,918.

(2) Painting doors and windows of Royal Artillery barracks; estimate Rs. 2,487, outlay Rs. 2,378.

(3) Renewing filtering materials of the cistern at the Ulsoor Rock; estimate Rs. 1,783, outlay Rs. 1,742.

(4) Renewing filtering materials of the cistern at Dhobie's Wells; estimate Rs. 1,577, outlay Rs. 1,516.

(5) Painting doors and windows of Ulsoor Royal Horse Artillery barracks; estimate Rs. 1,782, outlay Rs. 1,746.

. **Trichinopoly.**—A sum of Rs. 6,162 was expended in repairing the military buildings and in paying compensation for quarters in the other divisions in the circle.

. The construction of public buildings for a regiment of Native Infantry was continued, a magazine and cells having been under progress; the outlay was Rs. 1,756 against a grant of Rs. 3,593.

. The construction of stone drains for the new lines mentioned above, for which a grant of Rs. 1,000 was given, could not be commenced, the estimate not having been sanctioned. The construction of these drains has since been ordered to be deferred.

II.—IMPERIAL—CIVIL WORKS.

. **Vizagapatam.**—Repairs to the post offices at Vizagapatam, Narsapatnam and Koraput were completed.

. The construction of a post office building at Sálúr, for which an estimate of Rs. 2,000 was sanctioned, was in progress. The outlay amounted to Rs. 598.

. **Godavari (East).**—A sum of Rs. 735 (of which Rs. 306 was spent in the previous year) was expended on improvements to the post office building at Bhadráchalam against an estimate of Rs. 830. The work was fully completed.

. An estimate, amounting to Rs. 34,135, was sanctioned for the construction of quarters for signallers to the Telegraph department at Cocanada. The work was completed at a total cost of Rs. 39,449, the expenditure being Rs. 5,529.

. Improvements to the telegraph office at Cocanada were carried out at a total cost of Rs. 3,696, the expenditure amounting to Rs. 758 against an estimate of Rs. 4,000.

. **Kistna (East).**—A well in the compound of the Bezváda post office was constructed during the year. The estimate amounted to Rs. 280 against an outlay of Rs. 307. After three-fourths of the work had been completed the estimate required

revision, owing to clay having been met with. The repairs to the telegraph offices at Bezváda and Masulipatam were executed.

. **Kistna (West).**—Rupees 804 were expended in completing the Duggirala post office; estimate Rs. 900, allotment Rs. 757. The telegraph office at Guntúr was repaired.

. **Nellore.**—A sum of Rs. 842 was spent on the construction of quarters for the postmaster at Gúdúr; the estimate was Rs. 1,260 against a grant of Rs. 1,232. The work was almost completed.

. The post offices at Kávali and Kristnapatam were repaired during the year, but the repairs of that at Gúdúr could not be commenced till the quarters for the postmaster were finished.

. **Bellary.**—The walls of the post office at Anantapur were raised to a height of 11 feet, and out-houses nearly finished; but the work was suspended pending sanction to the construction of a telegraph office-room, which it was proposed to attach to the post office. The expenditure amounted to Rs. 1,922 against the estimate of Rs. 4,051.

. **Coimbatore.**—Repairs to five post offices were carried out during the year at an outlay of Rs. 762.

. **Nilgiris.**—The Ootacamund telegraph office was repaired at a cost of Rs. 564 and the Wellington post office at an outlay of Rs. 158.

. **West Coast.**—Certain vacant buildings in the Fort at Tellicherry (late district jail) were converted into a post office and postmaster's quarters. The estimate amounted to Rs. 1,810 and the expenditure to Rs. 1,788. The work was completed. Rupees 637 were spent in repairs to eight postal buildings.

. **North Arcot.**—A sum of Rs. 76 was spent on the construction of a well for the Punganúr post office.

. Rupees 350 were spent on repairs to postal buildings and Rs. 42 on repairs to telegraph buildings.

. **South Arcot.**—A sum of Rs. 148 was expended on repairs to postal buildings.

. **Presidency and Bangalore.**—The combined post and telegraph offices were completed by the conversion of the Commissariat mule stables on the foreshore into stables for the post office mails and the construction of quarters for the sergeant in charge of the mails. The total expenditure on the combined offices amounted to Rs. 6,89,931 and the estimate to Rs. 6,92,094.

. Under minor works an estimate of Rs. 2,790 was sanctioned for additions to the lightning conductors of the post and telegraph office to bring them into accordance with the new code of regulations, and other minor additions required by the departmental officers.

. The following repairs were carried out:—

(1) Repairing and white-washing walls of the Mylapore post and telegraph offices; estimate Rs. 155, outlay Rs. 152.

(2) Repairing and white-washing the Shoolay post and telegraph offices, Bangalore; estimate Rs. 186, outlay Rs. 172.

. **Trichinopoly.**—Slight improvements were carried out to the post office at Teppakulam and the sub-post office at Trichinopoly at a cost of Rs. 45 and Rs. 30, respectively.

. **Tanjore.**—Out of an allotment of Rs. 1,292, Rs. 1,079 were utilized. The chief item on which short outlay was incurred was the extension of Kumbakónam post office. The work was completed.

. **Madura.**—The construction of a post office at Butlagundu was proceeded with. Out of the grant of Rs. ~~955~~, Rs. 920 were spent and the work was nearly completed.

. An outlay of Rs. 109 was incurred in repairing the post offices at Kovilur and Ammayanáyakanúr.

. **Ramnad.**—The grant of Rs. 751 was fully spent in completing the additions to the post office building at Ramnad.

. **Tinnevelly.**—An expenditure of Rs. 437 was incurred on repairing the post offices at Palamcottah and Srívaikuntham. The former was completed and the latter is in progress.

III.—PROVINCIAL—CIVIL BUILDINGS.

. **Ganjam.**—A building, for the residence and office of the Executive Engineer at Chicacole, was purchased for a sum of Rs. 1,250, and thoroughly repaired; estimate Rs. 3,440, outlay Rs. 3,747.

. **Vizagapatam.**—The construction of a residence for the Assistant Superintendent of Police at Jeypore was completed; estimate Rs. 15,350, outlay Rs. 15,025.

. An expenditure of Rs. 9,060 was incurred in connection with the provision of additional accommodation to the huzur treasury at Vizagapatam against an estimate of Rs. 9,360. The work was completed and the building handed over to the Revenue Department.

. The following works were in progress :—

(1) A police station-house at Komarada; estimate Rs. 1,520, outlay Rs. 426.
(2) Additions and alterations to the deputy tahsildar's office at Pálkonda and the construction of a police station-house in its compound; estimate Rs. 4,920, outlay Rs. 1,876.
(3) Police station-house at Koraput; estimate Rs. 3,895, outlay Rs. 2,079.
(4) Additions to the deputy tahsildar's office at Bimlipatam; estimate Rs. 1,040, outlay Rs. 947.
(5) Improvements to the district court-house at Vizagapatam; estimate Rs. 1,861, outlay Rs. 2,231. The Executive Engineer stated that it was found necessary to do more work than was estimated for: hence the excess.

. About Rs. 24,000 were reserved to meet the cost of the iron bridges on the Potinghi ghât road ordered from and to be paid in England, but no notice has been received that this amount has been utilized.

. Under Repairs a short outlay of Rs. 1,000 was due chiefly to a saving in repairs to warders' lines in the Lunatic Asylum, Waltair, it having been decided not to put teak in the roofs of these huts.

. **Godavari (East).**—The following works were completed or in progress :—

(1) Constructing a district munsif's court-house at Peddapuram; estimate Rs. 10,300, outlay Rs. 11,686.
(2) Sub-magistrate's cutcherry at Pithápuram; estimate Rs. 8,983, outlay Rs. 10,045.
(3) Water-supply and improvements to the existing drainage of the central jail at Rajahmundry; estimate Rs. 33,030, outlay Rs. 30,599.
(4) Constructing registrar's office at Cocanada; estimate Rs. 4,700, outlay Rs. 4,573.
(5) Constructing a sub-magistrate's cutcherry at Tuni; estimate Rs. 9,436, outlay Rs. 5,709.
(6) Materials for the construction of a dispensary at Bhadráchalam were being collected; estimate Rs. 4,246, outlay Rs. 839.
(7) Constructing a residence at Dowlaishweram for the Superintending Engineer; estimate Rs. 22,400, outlay Rs. 21,697.
(8) Constructing a residence for the Executive Engineer at Dowlaishweram; estimate Rs. 12,500, outlay Rs. 8,909. Work in progress.

(9) Improvements to the sea-customs buildings at Cocanada; estimate Rs. 4,310, outlay Rs. 4,820.
(10) Constructing a sub-registrar's office at Pithápuram; estimate Rs. 2,300, outlay Rs. 2,315.
(11) Constructing quarters for the hospital assistant attached to the Public Works Department dispensary at Dowlaishweram; estimate Rs. 605, outlay Rs. 540.
(12) Extension to the Provincial College, Rajahmundry; estimate Rs. 1,620, outlay Rs. 1,526.
(13) Constructing a second-class station-house at Bhadráchalam; estimate Rs. 1,826, outlay Rs. 1,769.

. A sum of Rs. 2,000 was anticipated to be utilized for repairs to the Collector's cutcherry at Cocanada and for other buildings, but the estimates for these works did not come in, as they should have, in time; hence the short outlay.

. **Godavari (West).**—A sub-registrar's office at Pentapad was completed; estimate Rs. 2,710, outlay Rs. 2,679.

. The following works were in progress:—

(1) Sub-registrar's office at Tanuku; estimate Rs. 3,090, outlay Rs. 163.
(2) Taluk cutcherry at Tanuku; estimate Rs. 21,420, outlay Rs. 19,770.
(3) Taluk cutcherry at Bhímavaram; estimate Rs. 22,650, outlay Rs. 21,701.

. **Godavari (Central).**—The construction of a sub-registrar's office at Razole was in progress; estimate Rs. 2,750, expenditure Rs. 2,196.

. **Kistna Eastern Division.**—The construction of a residence and office for the Superintending Engineer was completed, with the exception of the latrines; estimate Rs. 26,775, expenditure Rs. 27,961. Out of an allotment of Rs. 1,000 for raising the compound round the Superintending Engineer's residence, Rs. 401 were spent.

. An allotment of Rs. 1,170 was granted for the addition of a room to the new treasury in the Gudiváda taluk office. Nothing was spent during the year owing to the late receipt of the allotment.

. A sum of Rs. 800 was allotted for the construction of head constables' and constables' huts at Bezváda. Rs. 408 was spent in collecting materials and the work had then to be stopped owing to the refusal of the Church Mission Society to give up the land in their school compound, where it was proposed to build the huts.

. Repairs to the following were completed:—

(1) The Collector's house.
(2) St. Mary's Church.
(3) Eastern division office.
(4) Northern sub-division office.

. **Kistna Western Division.**—Trees were planted in the compound of the division office and a sum of Rs. 83 spent on their maintenance, against a grant of Rs. 115.

. Slight repairs to the division office at Duggirala and the jail buildings at Guntúr were carried out.

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

(1) Sub-registrar's office at Gúdúr.
(2) Police huts at Kandukúr.
(3) Extension of the sawyers' shed, Nellore workshops.

The sub-registrar's office at Addanki was in progress.

. Under Repairs the following buildings were attended to:—

(1) Hill bungalow at Ongole.
(2) Sub-Collector's bungalow at Ongole.
(3) Police Assistant Superintendent's bungalow at Ongole.
(4) Kodavulur bungalow.
(5) Collector's bungalow at Nellore.
(6) Taluk cutcherry and sub-jail at Kandukúr.

(7) Police station-house at **Náyudupet.**
(8) Deputy tahsildar's cutcherry **and sub-jail** at Venkatagiri.
(9) Taluk cutcherry at Atmakúr.
(10) District jail, Nellore.

. **Bellary.**—The second-class taluk office at Siruguppa was completed during the year; but final payment was not made owing to the delay on the contractor's part in rectifying defects in the roof, which caused the measurements to be postponed until too late. The expenditure amounted to Rs. 12,771, against the estimate of Rs. 12,680.

. The Collector's office at Anantapur was completed with the exception of a stair case to the upper story, parapets, second coat of plaster, and wood oiling, fitting doors and ventilators, laying slabs to upper verandah, and substituting iron railing for masonry parapet walls. The progress of the work was not quite satisfactory owing to the contractor's failure to make proper arrangements. The expenditure on the work amounted to Rs. 49,902, against the estimate of Rs. 55,000.

. The Head Assistant Collector's office at Penukonda was completed and handed over. The expenditure amounted to Rs. 16,091, against the estimate of Rs. 16,682.

. The second-class taluk office at Bukkapatnam was completed and occupied during the year. The expenditure amounted to Rs. 12,777, against the estimate of Rs. 12,200.

. The old structure in the Collector's residence at Anantapur was removed; but nothing more could be done as no contractor came forward to take up the work, and it was not possible to arrange for the execution of the work departmentally within the short time left to close the official year. The expenditure on the work amounted to Rs. 15,997, against the estimate of Rs. 28,190.

. Improvements to the Collector's office at Bellary were carried out. The walls of the rooms in east and west wings were completed to a height of 8 feet above basement level; and door and window frames were fixed. The expenditure amounted to Rs. 8,518, against the estimate of Rs. 47,540.

. The undermentioned minor new works were carried out:—

(1) Enlarging the Collector's printing office at Bellary; estimate Rs. 1,745, outlay Rs. 1,719;
(2) A police hospital at Hospet at a cost of Rs. 653;
(3) A sub-registrar's office at Hadgally for Rs. 2,353;
(4) A sub-registrar's office at Hospet at an outlay of Rs. 2,167;
(5) The civil cemetery at Bellary was provided with a gateway and robing-room at a cost of Rs. 430;
(6) Out-houses for the Head Assistant Collector's bungalow at a cost of Rs. 460; and
(7) A strong-room in the taluk office at Kúdligi at a cost of Rs. 603.

. **Cuddapah.**—The construction of a taluk office at Váyalpád was in fair progress. The expenditure amounted to Rs. 9,910, against the estimate of Rs. 25,700.

. Work was in progress on the Collector's office at Cuddapah. The foundation and basement to the printing office were finished, and the superstructure was in progress. The foundation to the main buildings was nearly completed; estimate Rs. 1,43,741, expenditure Rs. 32,603.

. Of the sanctioned additions and alterations to the district jail at Cuddapah, the female ward was almost completed and the male ward No. 1 completed, except flooring and painting. The expenditure amounted to Rs. 14,741, against the estimate of Rs. 31,900.

. The number of works below Rs. 2,500 that were carried out during the year was fifteen, the outlay being Rs. 6,051.

. **Kurnool.**—The taluk office at Nandyál was in slow progress owing to difficulty in procuring labor on account of extensive railway works. The expenditure amounted to Rs. 15,662, against the estimate of Rs. 34,676.

. The sub-divisional officer's quarters at Cumbum were completed on the revised estimate of Rs. 4,794, the expenditure amounting to Rs. 4,770.

. **Nilgiris.**—A sum of Rs. 3,866 was spent in providing stone steps to the terraces, and guttering to the roof with masonry drains at Government House, Ootacamund.

. The Protestant church at Wellington was completed during the year within the amount of the revised estimate (Rs. 47,810); the outlay for the year amounted to Rs. 9,574.

. A Bench Magistrates' court at Kótagiri was commenced and nearly completed; estimate Rs. 8,060, expenditure Rs. 5,442.

. Of the undermentioned works, the first five were completed, the others were in progress:—

(1) Construction of an exercise yard for European convicts in the Ootacamund jail; outlay Rs. 4,472, estimate Rs. 5,790.
(2) The conversion of Rowe's bungalow into a police station, the outlay for the year being Rs. 5,178. The total expenditure amounted to Rs. 9,186, against an estimate of Rs. 9,170.
(3) Improvements to the Executive Engineer's office at Ootacamund.
(4) Provision of drains to the police lines at Ootacamund and to the Coonoor cemetery.
(5) Repairs to Government House, on which a sum of Rs. 9,177 was spent.
(6) The new buildings for Breeks' Memorial School were in progress; estimate Rs. 38,180, outlay Rs. 20,149.
(7) The construction of a Roman Catholic church at Wellington; estimate Rs. 30,526, expenditure up to date Rs. 7,000.
(8) Construction of a new police station at Naduvatam.

. Four minor works were carried out during the year and the buildings on Mountstuart at Ootacamund were repaired at a cost of Rs. 4,011.

. **Coimbatore.**—A new room for the huzur treasury at Salem was constructed at a cost of Rs. 2,876.

. The following works were in progress:—

(1) Alterations and additions to the quarters of the Superintendent, Central Jail, Salem; estimate Rs. 3,600, outlay Rs. 2,604.
(2) Construction of quarters for the deputy jailor attached to the Central Jail, Salem; estimate Rs. 3,660, outlay up to date Rs. 2,852.
(3) Reconstruction of a portion of the district munsif's court at Námakal; estimate Rs. 3,595, outlay up to date Rs. 2,514.
(4) The purchase and improvement of the Police Assistant Superintendent's residence at Tirupatúr; estimate Rs. 4,768, outlay up to date Rs. 4,673.
(5) The construction of a close prison at Coimbatore; estimate Rs. 19,582, expenditure of the year Rs. 1,534.
(6) Improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure up to date Rs. 4,474.

. Five minor works were undertaken and fully completed during the year under report at an outlay of Rs. 1,892.

. Thirty-five repair works were carried out during the year at a cost of Rs. 3,482.

. **West Coast.**—The district munsif's court and the record-room at Calicut, which remained incomplete at the end of the previous year, were finished, and with these buildings the whole project of the law courts at Calicut as originally designed was completed at a cost of Rs. 96,433, against an estimate of Rs. 1,06,706. The buildings were handed over to the Judicial Department.

. Improvements to the Government Church at Cochin, which were commenced in the previous year but stopped pending formal sanction to the estimate, were

resumed. Rs. 14,616 (which includes an outlay of Rs. 5,519 incurred in the previous year) were spent, against an estimate of Rs. 20,680.

. Satisfactory progress was made with the new public offices at Ponáni. The year's allotment, Rs. 20,000, was fully expended. The total expenditure up to the end of the year amounted to Rs. 50,784, against the estimate of Rs. 74,521.

. The following works were in progress :—

(1) A residence for the Assistant Superintendent of Police at Malapuram; estimate Rs. 13,660, expenditure Rs. 7,222.

(2) A sub-registrar's office at Chevayur; estimate Rs. 3,020, expenditure Rs. 1,400.

(3) Improvements to the munsif's court at Betatnad; allotment, Rs. 2,000 was fully worked out; estimate Rs. 4,295.

(4) Additions and improvements to the Police Superintendent's office at Mangalore; the full allotment of Rs. 3,000 was spent; estimate Rs. 9,200.

(5) A sub-registrar's office at Puthur and another at Udipi; expenditure Rs. 1,000 and Rs. 1,200, and estimates Rs. 3,120 and Rs. 3,370, respectively.

(6) A sub-registrar's office at Mannárghat, for which an estimate of Rs. 2,450 was sanctioned.

. The Head Assistant Collector's residence at Coondapoor, an incomplete work of the previous year, was fully completed and handed over to the Revenue Department. The total expenditure was Rs. 16,680 against an estimate of Rs. 17,000, the outlay for the year being Rs. 8,915, against an allotment of Rs. 9,235.

. The following works were completed :—

(1) The conversion of a vacant building in the fort at Tellicherry (late jail) into a Sub-Collector's cutcherry. Outlay amounted to Rs. 1,665.

(2) Additions and alterations to the district munsif's court-house at Paynad, commenced in the previous year. The total outlay was Rs. 1,509, against an estimate of Rs. 1,520.

(3) The conversion of the sweepers' quarters at the lunatic asylum, Calicut, into a patients' ward. The expenditure amounted to Rs. 2,268, against an estimate of Rs. 2,740.

(4) The erection of a temporary shed for the accommodation of 36 patients at the lunatic asylum at Calicut for Rs. 850.

. A sum of Rs. 6,683 was spent on repairs, the chief items being :—

(1) Repairing the roof of St. John's church at Cannanore, Rs. 1,715;
(2) Rebuilding the turret of the district munsif's court-house at Tellicherry, Rs. 475;
(3) Repairing the record room of the huzur cutcherry at Calicut, Rs. 572;
(4) Repairing the Malapuram church and belfry, Rs. 650;
(5) Repairing the taluk cutcherry at Manjeri, Rs. 1,580.

. **North Arcot.**—The construction of a sub-magistrate's cutcherry with out-houses at Arkónam was in progress. The outlay was Rs. 8,186, against an estimate of Rs. 14,245.

. Improvements to the sub-magistrate's cutcherry at Punganúr were put in hand, and an outlay of Rs. 2,410 was incurred, on an estimate of Rs. 4,480.

. Seven minor new works were in progress, of which five were completed. The total outlay amounted to Rs. 7,484.

. Twelve repair works were carried out at a cost of Rs. 5,501.

. **South Arcot.**—A sum of Rs. 1,200 was spent on collecting materials for the construction of a sub-registrar's office at Villupuram; estimate Rs. 3,020.

. Eight minor new works, on which a sum of Rs. 2,636 was spent, were in progress, of which three were completed, viz. :—

(1) Sub-registrar's office at Oolundurpett.

(2) Conversion of the office of the Assistant Superintendent of Police into a sub-registrar's office at Tirukoilur.

(3) Lascars sheds in the compound of the South Arcot divisional office, Cuddalore.

. Under Repairs a sum of Rs. 1,985 was spent.

. A contribution by the Cuddalore Municipality of Rs. 60 for survey establishment in connection with the preparation of an estimate for a bridge across the Gadilam river was spent for the purposes. A sum of Rs. 14, being the balance of a contribution given by the same municipality in 1885-86 for repairs to the powder magazine at Munjakuppam, was utilized in refixing the lightning conductor.

. **Chingleput.**—The light-house at the Seven Pagodas was in progrees on an estimate of Rs. 8,165, sanctioned in G.O., No. 2708 W., dated 15th October 1886.

. The work consists of—

(1) The construction of a stone platform for a fourth order light.
(2) the construction of Superintendent's quarters.
(3) the construction of lascar's lines.
(4) the construction of two sentry boxes.

This portion should be taken down under Excluded Local Fund page 26 work ×××

Chingleput. The upper-storey of the Agricultural College at Saidápet, for which an estimate of Rs. 18,370 was sanctioned in March 1885, was commenced and completed, with the exception of the tower and lightning conductors. The expenditure was Rs. 16,096.

. Seven minor new works were completed at a total cost of Rs. 6,974.

. The buildings at Government House, Guindy Park, and other buildings were repaired at a total outlay of Rs. 15,502.

. **Presidency and Bangalore.**—An expenditure of Rs. 4,419 was incurred on materials for the alterations to the roof of the north and south wings of the Public Works offices at Chepâk. The sanctioned estimate was Rs. 5,035. The work was completed during the year. The saving was chiefly due to the utilization of materials in the old roof.

. An estimate of Rs. 5,764 was sanctioned for the construction of tiffin-rooms for the clerks of the Revenue Board offices and students of the College of Engineering. The old tiffin-rooms, which stood on the south side of the College of Engineering, an old Carnatic building, a part of which was in a dilapidated state, were pulled down to make room for the extensions to the College of Engineering and a new range of tiffin-rooms was constructed on another site. By utilizing a large quantity of the serviceable materials belonging to the old tiffin-rooms a saving was effected on the estimate. The total expenditure amounted to Rs. 5,215.

. Additions were made to the College of Engineering, Madras. The walls were raised 20 feet above the ground level and a great portion of the materials collected and worked. Further progress in construction had to be delayed owing to the non-arrival from England of rolled iron girders.

. The construction of covered passages at the new Ophthalmic hospital at Madras was completed. The outlay amounted to Rs. 9,192, against an estimate of Rs. 11,010. An expenditure of Rs. 616 was incurred for laying out the grounds with plants and shrubs.

. A total expenditure of Rs. 10,640 was incurred on repairs to the Lying-in-hospital at Madras. The general repairs chiefly consisted in replastering the lower portions of wards with Portland cement, painting wood and iron works, washing, &c. The special repairs consisted in taking up and relaying the tiled roofing with a lining of Willesdon paper. The buildings were placed in excellent order.

. The construction of a latrine, on the banks of the Buckingham canal, west of the Senate House, which was commenced in 1885-86, was completed; expenditure Rs. 6,390; estimate Rs. 6,600.

. The fishing village on the south side of the Presidency College was removed to the west side of the canal. The work was successfully completed at a cost of Rs. 35,115, against the estimate of Rs. 36,158.

. The work of constructing cook-houses and fencing the compounds of the several quarters attached to the College of Engineering was completed; expenditure Rs. 3,851; estimate Rs. 3,872.

. An estimate of Rs. 2,946 was worked out for alterations and additions to the Presidency College, especially to the physical science department. The outlay amounted to Rs. 2,775.

. The estimate, amounting to Rs. 27,139, for improvements to the roads and maintenance of trees and plants in the Chepâk park, was worked out. Most of the expenditure was incurred in 1886-87, and the total outlay amounted to Rs. 27,802.

. An estimate of Rs. 2,455 was sanctioned for the repair and maintenance of the roads in Chepâk park; the expenditure amounted to Rs. 2,463.

Trichinopoly.—The construction of a district jail in Trichinopoly, for which a grant of Rs. 11,500 was sanctioned, was in progress. The expenditure amounted to Rs. 11,131.

. The sub-registrar's office at Manaparai was completed at a cost of Rs. 2,152, the sanctioned estimate being Rs. 2,090.

. The following repairs were carried out:—

(1) Re-roofing block No. 1, Central jail. The repairs were nearly completed and at an outlay of Rs. 2,586.

(2) District munsif's court at Ariyalúr, on which a sum of Rs. 490 was spent.

. A sum of Rs. 10,529 was spent during the year for minor (original) works, principally—

(1) Making a road in the open land north of the Ophthalmic hospital.

(2) Cleaning and levelling the site of the old fishing village.

. Rs. 17,717 was spent on repairs to buildings during the year including the maintenance of the foreshore and ride at the south beach and the repairs executed to the old eye infirmary; Rs. 4,809 were paid on account of municipal taxes for the Public Works Department offices and Government brickfields.

. New seats were provided to St. Matthias' Church, Vepery, at a cost of Rs. 2,404; estimate Rs. 2,930.

. Rupees 3,669 were spent on improvements to, and extension of, the verandah of the main record-room, Government office, Fort St. George; estimate Rs. 4,290.

. The construction of the city reserve police lines at Pudupet was commenced, and an outlay of Rs. 5,461 was incurred against the estimate of Rs. 27,785 in the collection of materials.

. The construction of an upper storey to the office of the Deputy Commissioner of Police was commenced, and an outlay of Rs. 2,537 was incurred in the collection of materials against an estimate of Rs. 10,290.

. The following works at Her Majesty's Penitentiary were commenced and in progress:—

(1) Quarters for the hospital assistants; estimate Rs. ~~4,726~~ 5,774, outlay Rs. 4,960.

(2) A new work shed; estimate Rs. 3,200, outlay Rs. 2,545.

(3) New roofs to the close prison cells; estimate Rs. 11,200, outlay Rs. 2,290.

(4) Twelve solitary cells, commenced last year, were completed; estimate Rs. 5,750, outlay Rs. 5,308.

. A sum of Rs. 1,907 was spent on an estimate of Rs. 2,711 for ornamenting the ceilings of the nave of St. George's Cathedral, and the work was postponed for completion in 1887-88.

. A commencement was made on the new gate-way for St. Mary's Cemetery, and Rs. 2,992 were spent on an estimate of Rs. 6,285.

. The property known as the Government Female Normal School at Egmore was purchased from the proprietor for Rs. 12,000.

. A cottage for twelve lunatics and a block of six rooms for native criminals at the lunatic asylum were commenced and completed at an outlay of Rs. 8,862 against an estimate of Rs. 9,630.

Take this to page 22 and strike above Tanjore

. A sum of Rs. 4,493 was spent at Madras on furniture for Government-house at Madras, Guindy and Ootacamund.

. Thirty-two minor new works were carried out at a cost of Rs. 10,098.

. One hundred and twenty-five repair works at Madras and twelve in Bangalore were carried out. None of the works at Bangalore were of much importance.

. The following are the more important repairs of those carried out in Madras :—

(1) Repairs to the Government Secretariat buildings, Fort St. George ; estimate Rs. 3,635, outlay Rs. 1,054.

(2) General repairs to Government House, Banquetting Hall, Marine Villa, and out-houses attached ; estimate Rs. 11,550, outlay Rs. 11,960.

(3) Repairs to the Lock Hospital, Black Town, Madras ; estimate Rs. 6,755, outlay Rs. 4,249.

(4) Repairs to the roofs of the Public Works Workshops and Stores and renewal of the roof of the Workshop foundry ; estimate Rs. 6,855, outlay Rs. 5,495.

. A sum of Rs. 536 was spent on alterations and additions to the petroleum shed on the beach which was completed last year.

. Under repairs a sum of Rs. 298 was received from the Secretary, Biden Home Committee, for carrying out repairs to the Home, and Rs. 3,422-6-5 from the Secretary, Military Female Orphan Asylum, for carrying out certain works to the asylum buildings. Out of the first mentioned contribution, a sum of Rs. 282 was spent and the work completed. The other contribution was received only in March.

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

(1) A district jail at Tanjore ; estimate Rs. 2,11,100, outlay Rs. 2,02,771.

(2) A police station-house at Tanjore ; estimate Rs. 6,740, expenditure Rs. 7,113.

(3) Compound mud-walls of the warders' huts attached to the district jail, at a cost of Rs. 1,255, against an estimate of Rs. 1,420.

(4) Alterations to a portion of the old taluk cutcherry for the accommodation of the sub-registrar's office at Triviar ; estimate Rs. 1,220, outlay Rs. 1,225.

. The following works were in progress :—

(1) A combined court-house for the district munsifs at Kumbakónam and Valangiman ; estimate Rs. 34,342, expenditure Rs. 7,607.

(2) A first-class taluk cutcherry at Kumbakónam estimate Rs. 19,240, expenditure Rs. 249.

(3) Extensions to the police station-house at Kumbakónam ; estimate Rs. 2,700, outlay Rs. 1,141.

(4) Police station at Kornad, in the Máyavaram taluk ; estimate Rs. 1,130, expenditure Rs. 1,102.

(5) Construction of six huts for the land custom police at Nalladay ; estimate Rs. 1,950, expenditure for land compensation Rs. 141. Work held in abeyance.

. Repairs to the buildings below mentioned were put in hand :—

(1) District court, Tanjore, to which lightning conductors were added. Work completed ; estimate Rs. 1,127.

(2) Taluk cutcherry at Shiyáli in progress ; estimate Rs. 1,240.

. **Negapatam.**—An estimate, amounting to Rs. 1,200, was sanctioned for extending the Government cemetery at Negapatam ; outlay Rs. 459.

. The compound of the Executive Engineer's office at Kodambady was metalled at a cost of Rs. 147.

. Rupees 1,073 was paid as compensation for the land taken over for the district munsif's court at Tiruválúr.

. The following repair works were carried out :—

(1) The portion of St. Joseph's College buildings where the tahsildar holds his office, at a cost of Rs. 1,132.
(2) The sub-registrar's office at Tiruturaipúndi, at a cost of Rs. 86.
(3) Other sundry repairs to the extent of Rs. 196.

. **Madura.**—The following works were in progress :—

(1) The construction of a sub-magistrate's cutcherry at Madura; estimate Rs. 17,889, allotment Rs. 9,889. A sum of Rs. 5,000 was expended up to the end of 1885-86 and Rs. 9,889 in 1886-87.
(2) The construction of a second-class police station-house at Sáptúr; estimate Rs. 4,850; allotment Rs. 2,350, outlay Rs. 2,056.
(3) The construction of a sub-registrar's office at Tirumangalam; estimate Rs. 2,864; allotment Rs. 950.
(4) Improvements to the deputy tahsildar's cutcherry at Tirushuli; estimate Rs. 3,785; allotment Rs. 1,000.
(5) The construction of a second-class police station-house and one head and five constables' huts at Ammyanáyakanúr; estimate Rs. 3,850; allotment Rs. 1,200, out of which Rs. 570 only was expended.

. The following works were completed :—

(1) A deputy tahsildar's cutcherry at Vedasundur; estimate Rs. 11,828, total expenditure Rs. 12,200.
(2) A deputy tahsildar's cutcherry at Uthamapoliam; estimate Rs. 11,993, expenditure Rs. 12,547.
(3) A deputy tahsildar's cutcherry at Nellakóta; estimate Rs. 11,828, expenditure Rs. 12,319.
(4) A sub-registrar's office at Usilampatti; estimate Rs. 2,580, expenditure Rs. 2,611.

. The allotment under Minor Original Works was Rs. 1,345; expenditure Rs. 1,217; of this Rs. 1,055 was expended in constructing a second-class police station-house at Iyalur and Rs. 161 on securing the treasury-room of the taluk cutcherry at Tirumangalam; and these two works have been nearly completed.

. A sum of Rs. 1,800 was allotted to repairs. The expenditure, which amounted to Rs. 2,188, was utilized chiefly in :—

(1) Repairing the Sub-Collector's bungalow, taluk cutcherry and Public Works office at Dindigul;
(2) Maintaining the garden in Terumal Naick's palace at Madura; and
(3) Fixing lightning conductors in the palace at Madura.

. **Ramnad.**—The expenditure during the year on work of converting the police hospital at Ramnad into a residence for the Assistant Superintendent of Police was Rs. 3,152, against the grant of Rs. 3,239; the work was fully completed.

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

(1) The construction of a record-room and improvements to the district court-house at Kokarakulam; estimate Rs. 17,875, expenditure Rs. 12,183.
(2) The construction of a registrar's office at Kokarakulam; estimate Rs. 4,380, expenditure Rs. 4,268.
(3) The construction of a sub-registrar's office at Srívilliputur; estimate Rs. 2,705, expenditure Rs. 2,638.
(4) Addition of a compound-wall to the sub-jail at Sankaranainárkoil; estimate Rs. 4,312, expenditure Rs. 3,817.

. The following minor original works were completed or in progress :—

(1) Sub-registrar's office at Vattirayirupur; estimate Rs. 2,142, expenditure Rs. ~~2,142~~.
(2) Sub-registrar's office at Sattankulam; estimate Rs. 2,080, expenditure Rs. 2,142.
(3) Third-class police station-house at Singhikulam; estimate Rs. 1,137, expenditure Rs. 1,104.

(4) Drainage work for the district jail at Palamcottah; estimate Rs. 370, expenditure Rs. 368.

. Repairs to the buildings below mentioned were completed :—

(1) Head Assistant Collector's bungalow.
(2) Public Works Department sub-divisional officer's bungalow at Shermádevi.
(3) The Sub-Collector's bungalow at Tuticorin and some other petty works.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Vizagapatam.**—The construction of the Potinghi ghât road was completed with the exception of the iron work for one of the two bridges, which has been ordered from England; estimate Rs. 4,56,581, outlay Rs. 4,34,639.

. An estimate of Rs. 2,72,700 was sanctioned for the construction of a road from Potinghi to Koraput. A sum of Rs. 30,440 was spent on the work, which was in slow progress owing to great difficulties experienced.

. The work of surveying and levelling the road from Koraput to Jagadalapur was put in hand. Plans and surveys of 35 miles beyond Koraput towards the Central Provinces were completed. Upwards of 100 miles remained to be done. The expenditure amounted to Rs. 1,012, against an estimate of Rs. 1,500.

. Under Repairs a sum of Rs. 18,691 was expended in maintaining the Potinghi ghât road, against a grant of Rs. 18,170. The roads were maintained in fair order and the damages done to the road by the heavy rains during the monsoon were repaired.

. **Godavari (East).**—The navigation works at Dumagudiem were maintained at a cost of Rs. 7,982 during the year.

. **Nilgiris.**—Under this head the following works were completed :—

(1) A new road up Mountstuart at a cost of Rs. 8,427.
(2) Improvements to the road from Ootacamund to Gúdalúr.
(3) Rest-houses with out-houses on the ghât at the 9th mile below Coonoor at a cost of Rs. 7,359.
(4) Widening and remetalling the ghât road from Kullar to Gúdalúr at a cost of Rs. 3,671.
(5) A new bridge at Barliyár was partly completed.

. **Presidency and Bangalore.**—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.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

. **Buckingham Canal Division.**—An outlay of Rs. 417 was incurred on clearing trees on two islands in the Adyar river. The work was in progress.

. **Nilgiris.**—A sum of Rs. 1,10,085 was expended on improvements to the Ootacamund water-supply north of the lake. The work was in progress.

. The bazaar drainage scheme was fully completed.

. A sum of Rs. 1,720 was spent in improving the margin of the Ootacamund lake.

. The Adam Memorial fountain was completed at a cost of Rs. 4,493.

Under Minor Works—

(1) A wall was built in the compound of the sub-magistrate's court at Gúdalúr, at a cost of Rs. 673.

(2) The construction of a raised foot-path from Charing Cross, Ootacamund, to the market was commenced.

. Under Repairs a sum of Rs. 933 was spent on the escapes of Ootacamund and St. Lawrence lakes.

. **West Coast.**—The revetment constructed for the protection of the town of Ponáni was extended to 520 feet and Rs. 3,295 expended, against an estimate of Rs. 4,280. The work was in progress and the revetment almost completed.

. **South Arcot.**—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was commenced last year, was nearly completed. The total outlay was Rs. 6,022, against the estimate of Rs. 8,550.

. **Chingleput.**—A proposal of M. deClosets for making an experimental Artesian boring in the Kortalayár basin was accepted in G.O., No. 1128 W., dated 5th May 1886. The work was commenced in June and the boring carried out to a depth of 200 feet, when there were some signs of water being likely to be tapped if the boring was made deeper. It has since been ordered to be carried to a depth of 300 feet.

. **Presidency and Bangalore.**—The estimate of Rs. 1,04,618 for improvements to the south beach promenade, viz., the construction of a promenade from the Napier bridge to Elliot's road was completed during 1886-87. The total outlay amounted to Rs. 1,05,383.

. A sum of Rs. 7,837 was expended against an estimate of Rs. 12,353 in extending the south beach marina. The brickwork in the retaining-wall on the sea-side was completed, the stone for coping to retaining-wall collected, and about three-quarters of the quantity dressed. The stone for the curb on the roadside was also collected and about one-half the quantity dressed.

. The following works were completed or in progress :—

(1) Planting the foreshore from the Napier bridge to Pycroft's road with grass ; estimate Rs. 4,768, outlay Rs. 4,748.

(2) Continuing the stone dwarf wall along the western side of the South beach road from Pycroft's road to the old Hindu cemetery ; estimate Rs. 11,834, outlay Rs. 9,335.

. Four bunds were thrown up across the Coum river to keep the river-bed covered with water up to the South Indian Railway bridge. An expenditure of Rs. 896 was incurred on this account and a further outlay of Rs. 835 on repairs to these bunds, and the work of clearing the water between them of weeds. A total outlay of Rs. 850 was spent on the general conservancy of the river.

. **Tanjore.**—A masonry wall for the protection of Kumbakónam town on the south side of the Cauvery was constructed at a cost of Rs. 2,257, against an estimate of Rs. 2,330.

VI.—LOCAL INCORPORATED.

. **Godavari (East).**—The total expenditure up to the end of the year on the Covur-Munjair junction canal amounted to Rs. 1,40,855, against an estimate of Rs. 1,45,525.

. A sum of Rs. 5,431 was spent on the construction of an iron lattice girder bridge at Vencatakrishnapuram lock, of the Sámalkót canal, against an estimate of Rs. 5,550. The bridge was completed and opened for traffic.

. A short outlay of Rs. 1,576 under Repairs was due chiefly to estimates not having been received from the Executive Engineer, Godávari Eastern division, for the full amount of allotment.

. **Kistna (East).**—The construction of a landing stage at Bezváda was in progress. Out of a grant of Rs. 7,788, only Rs. 4,098 were spent. The retaining

wall was nearly completed and about one-third of the stone pitching to the bank carried out. The total expenditure amounted to Rs. 17,875, against the estimate of Rs. 21,566.

. **Kistna (West).**—The river and canal banks used as roads were maintained in proper order at an expenditure of Rs. 937, against a grant of Rs. 1,000.

. Materials were collected for the construction of a culvert under the good-water channel at Nizampatam. Owing to the late sanction, a sum of Rs. 120 only was spent on an estimate of Rs. 900.

. **Trichinopoly.**—A sum of Rs. 626 was spent in maintaining 20 miles of road in this district.

. **Tanjore.**—Under this head a sum of Rs. 5,987 was spent in maintaining 109 miles of road in this district.

. **Negapatam.**—A sum of Rs. 3,740 was spent in maintaining 42½ miles of road in this district.

VII.—LOCAL—EXCLUDED.

. **Ganjam.**—An expenditure of Rs. 2,11,065 was incurred in constructing an iron pier at Gopálpur against an estimate of Rs. 2,30,903. Seventy bays were completed up to the end of March 1887 against the estimate of 93. A revised estimate for Rs. 3,08,200 was since sanctioned.

. **Godavari (East).**—A sum of Rs. 1,031 was spent in setting up a new fourth order dioptric light at the Hope Island light-house against an estimate of Rs. 954.

. **Vizagapatam.**—The second-class order light for the Santapally light-house was unpacked and set up at a cost of Rs. 308.

. A new lightning conductor has been ordered from the Public Works Stores, Madras.

Kistna (East).—The silt in the salt creek below the tidal lock at Masulipatam was cleared away. Rupees 475 only was spent out of an allotment of Rs. 1,560 owing to the allotment having been given late in the year.

. **Nellore.**—The grant and outlay under this head in the Buckingham canal division were Rs. 4,364 and 3,664, respectively. Improvements to the superintendent's quarters at Armeghon light-house were nearly completed, and the following works were in progress :—

(1) Further improvements and alterations to the superintendent's quarters at Armeghon light-house.
(2) Constructing lines for the lascars attached to the above named light-house.
(3) Constructing lines for the lascars attached to the light-house at Pulicat.
(4) Repairing the damages which these light-houses received during the cyclone of November 1886.

. **Presidency and Bangalore.**—The following major works were completed :—

(1) Paving the vaults of the Senate house ; estimate Rs. 4,343, outlay Rs. 3,715.
(2) Closing the openings to the vaults of the Senate house ; estimate Rs. 2,600, outlay Rs. 2,614.

. Some minor new works were executed at a total cost of Rs. 1,013 and repairs to the extent of Rs. 799.

. Rupees 108 was expended in maintaining and laying out the ground near the Senate house with shrubs and plants.

(1) Further [illegible] Armeg[illegible]-house.
(2) Constructing lines for the lascars house.
(3) Constructing lines for the lascars at

. **Ramnad.**—The port officer's bungalow at Pámban was repaired at a cost of Rs. 921 against a grant of Rs. 934.

. **Tinnevelly.**—Out of a grant of Rs. 42 for forming a new earth-plate, &c., to the lightning conductor attached to the light-house on Hare Island Rs. 7 were spent.

. A grant of Rs. 230 was sanctioned for repairs to the light-house superintendent's quarters at Muttum, which were completed at an outlay of Rs. 228.

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(2) Constructing lines for the lascars attached to the above named light-house.
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(4) Repairing the damages which these light-houses received during the cyclone of November 1886.

Presidency and Bangalore.—The following major works were completed:—

(1) Paving the vaults of the Senate house; estimate Rs. 4,343, outlay Rs. 3,715.
(2) Closing the openings to the vaults of the Senate house; estimate 2,600 Rs. ~~2,608~~, outlay Rs. 2,614.

Some minor new works were executed at a total cost of Rs. 1,013 and repairs to the extent of Rs. 799.

Rupees 108 was expended in maintaining and laying out the ground near the Senate house with shrubs and plants.

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Tinnevelly.—Out of a grant of Rs. 42 for forming a new earth-plate, &c., to the lightning conductor attached to the light-house on Hare Island Rs. 7 were spent.

A grant of Rs. 230 was sanctioned for repairs to the light-house superintendent's quarters at Muttum, which were completed at an outlay of Rs. 228.

Madras Municipality for the maintenance of ... Mount and Poonamallee.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

. **Buckingham Canal Division.**—An outlay of Rs. 417 was incurred on clearing trees on two islands in the Adyar river. The work was in progress.

. **Nilgiris.**—A sum of Rs. 1,10,085 was expended on improvements to the Ootacamund water-supply north of the lake. The work was in progress.

. The bazaar drainage scheme was fully completed.

. A sum of Rs. 1,720 was spent in improving the margin of the Ootacamund lake.

. The Adam Memorial fountain was completed at a cost of Rs. 4,493.

Under Minor Works—

(1) A wall was built in the compound of the sub-magistrate's court at Gúdalúr, at a cost of Rs. 673.

(2) The construction of a raised foot-path from Charing Cross, Ootacamund, to the market was commenced.

. Under Repairs a sum of Rs. 933 was spent on the escapes of Ootacamund and St. Lawrence lakes.

. **West Coast.**—The revetment constructed for the protection of the town of Ponáni was extended to 520 feet and Rs. 3,295 expended, against an estimate of Rs. 4,280. The work was in progress and the revetment almost completed.

. **South Arcot.**—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was commenced last year, was nearly completed. The total outlay was Rs. 6,022, against the estimate of Rs. 8,550.

. **Chingleput.**—A proposal of M. deClosets for making an experimental Artesian boring in the Kortalayár basin was accepted in G.O., No. 1128 W., dated 5th May 1886. The work was commenced in June and the boring carried out to a depth of 200 feet, when there were some signs of water being likely to be tapped if the boring was made deeper. It has since been ordered to be carried to a depth of 300 feet.

. **Presidency and Bangalore.**—The estimate of Rs. 1,04,618 for improvements to the south beach promenade, viz., the construction of a promenade from the Napier bridge to Elliot's road was completed during 1886-87. The total outlay amounted to Rs. 1,05,383.

. A sum of Rs. 7,837 was expended against an estimate of Rs. 12,353 in expending the south beach marina. The brickwork in the retaining-wall on the sea-side was completed, the stone for coping to retaining-wall collected, and about three-quarters of the quantity dressed. The stone for the curb on the roadside was also collected and about one-half the quantity dressed.

Madras Municipality for the [illegible] of the Mount and Poonamallee.

Valangiman; estimate Rs. 34,[illegible]2, expenditure Rs. 7,607.

(2) A first-class taluk cutcherry at Kumbakónam and a district munsif's court; estimate Rs. 19,240, expenditure Rs. 249.

(3) Extensions to the police station-house at Kumbakónam; estimate Rs. 2,700, outlay Rs. 1,141.

(4) Police station at Kornad, in the Máyavaram taluk; estimate Rs. 1,130, expenditure Rs. 1,102.

(5) Construction of six huts for the land custom police at Nalladay; estimate Rs. 1,950, expenditure for land compensation Rs. 141. Work held in abeyance.

. Repairs to the buildings below mentioned were put in hand:—

(1) District court, Tanjore, to which lightning conductors were added. Work completed; estimate Rs. 1,127.

(2) Taluk cutcherry at Shiyáli in progress; estimate Rs. 1,240.

. **Negapatam.**—An estimate, amounting to Rs. 1,200, was sanctioned for extending the Government cemetery at Negapatam; outlay Rs. 459.

. The compound of the Executive Engineer's office at Kodambady was metalled at a cost of Rs. 147.

. Rupees 1,073 was paid as compensation for the land taken over for the district munsif's court at Tiruválúr.

. The following repair works were carried out:—

(1) The portion of St. Joseph's College buildings where the tahsildar holds his office, at a cost of Rs. 1,132.

(2) The sub-registrar's office at Tiruturaipúndi, at a cost of Rs. 86.

(3) Other sundry repairs to the extent of Rs. 196.

. **Madura.**—The following works were in progress:—

(1) The construction of a sub-magistrate's cutcherry at Madura; estimate Rs. 17,889, allotment Rs. 9,889. A sum of Rs. 5,000 was expended up to the end of 1885-86 and Rs. 9,889 in 1886-87.

(2) The construction of a second-class police station-house at Sáptúr; estimate Rs. 4,850; allotment Rs. 2,350, outlay Rs. 2,056.

(3) The construction of a sub-registrar's office at Tirumangalam; estimate Rs. 2,864; allotment Rs. 950.

(4) Improvements to the deputy tahsildar's cutcherry at Tirushuli; estimate Rs. 3,785; allotment Rs. 1,000.

(5) The construction of a second-class police station-house and one head and five constables' huts at Ammyanáyakanúr; estimate Rs. 3,850; allotment Rs. 1,200, out of which Rs. 570 only was expended.

. The following works were completed:—

(1) A deputy tahsildar's cutcherry at Vedasundur; estimate Rs. 11,828, total expenditure Rs. 12,200.

(2) A deputy tahsildar's cutcherry at Uthamapoliam; estimate Rs. 11,993, expenditure Rs. 12,547.

(3) A deputy tahsildar's cutcherry at Nellakóta; estimate Rs. 11,828, expenditure Rs. 12,319.

(4) A sub-registrar's office at Usilampatti; estimate Rs. 2,580, expenditure Rs. 2,611.

and worked. [illegible] had
arrival from England of rolled iron gi[illegible]

. The construction of covered passages at the new Ophthalmic hospital at Madras was completed. The outlay amounted to Rs. 9,192, against an estimate of Rs. 11,010. An expenditure of Rs. 616 was incurred for laying out the grounds with plants and shrubs.

. A total expenditure of Rs. 10,640 was incurred on repairs to the Lying-in-hospital at Madras. The general repairs chiefly consisted in replastering the lower portions of wards with Portland cement, painting wood and iron works, washing, &c. The special repairs consisted in taking up and relaying the tiled roofing with a lining of Willesdon paper. The buildings were placed in excellent order.

. The construction of a latrine, on the banks of the Buckingham canal, west of the Senate House, which was commenced in 1885-86, was completed; expenditure Rs. 6,390; estimate Rs. 6,600.

. The fishing village on the south side of the Presidency College was removed to the west side of the canal. The work was successfully completed at a cost of Rs. 35,115, against the estimate of Rs. 36,158.

. The work of constructing cook-houses and fencing the compounds of the several quarters attached to the College of Engineering was completed; expenditure Rs. 3,851; estimate Rs. 3,872.

. An estimate of Rs. 2,946 was worked out for alterations and additions to the Presidency College, especially to the physical science department. The outlay amounted to Rs. 2,775.

. The estimate, amounting to Rs. 27,139, for improvements to the roads and maintenance of trees and plants in the Chepâk park, was worked out. Most of the expenditure was incurred in 1886-87, and the total outlay amounted to Rs. 27,802.

. An estimate of Rs. 2,455 was sanctioned for the repair and maintenance of the roads in Chepâk park; the expenditure amounted to Rs. 2,463.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

these buildings [illegible] ...urts at Calicut as originally designed was completed at a cost of Rs. 96,433, against an estimate of Rs. ~~95,240~~. The buildings were handed over to the Judicial Department.

. Improvements to the Government Church at Cochin, which were commenced in the previous year but stopped pending formal sanction to the estimate, were resumed. Rs. 14,616 (which includes an outlay of Rs. 5,519 incurred in the previous year) were spent, against an estimate of Rs. 20,680.

. Satisfactory progress was made with the new public offices at Ponáni. The year's allotment, Rs. 20,000, was fully expended. The total expenditure up to the end of the year amounted to Rs. 50,784, against the estimate of Rs. 74,521.

. The following works were in progress :—

(1) A residence for the Assistant Superintendent of Police at Malapuram; estimate Rs. 13,660, expenditure Rs. 7,222.
(2) A sub-registrar's office at Chevayur; estimate Rs. 3,020, expenditure Rs. 1,400.
(3) Improvements to the munsif's court at Betatnad; allotment, Rs. 2,000 was fully worked out; estimate Rs. 4,295.
(4) Additions and improvements to the Police Superintendent's office at Mangalore; the full allotment of Rs. 3,000 was spent; estimate Rs. 9,200.
(5) A sub-registrar's office at Puthur and another at Udipi; expenditure Rs. 1,000 and Rs. 1,200, and estimates Rs. 3,120 and Rs. 3,370, respectively.
(6) A sub-registrar's office at Mannárghat, for which an estimate of Rs. 2,450 was sanctioned.

. The Head Assistant Collector's residence at Coondapoor, an incomplete work of the previous year, was fully completed and handed over to the Revenue Department. The total expenditure was Rs. 16,680 against an estimate of Rs. 17,000, the outlay for the year being Rs. 8,915, against an allotment of Rs. 9,235.

. The following works were completed :—

(1) The conversion of a vacant building in the fort at Tellicherry (late jail) into a Sub-Collector's cutcherry. Outlay amounted to Rs. 1,665.
(2) Additions and alterations to the district munsif's court-house at Paynad, commenced in the previous year. The total outlay was Rs. 1,509, against an estimate of Rs. 1,520.
(3) The conversion of the sweepers' quarters at the lunatic asylum, Calicut, into a patients' ward. The expenditure amounted to Rs. 2,268, against an estimate of Rs. 2,740.
(4) The erection of a temporary shed for the accommodation of 36 patients at the lunatic asylum at Calicut for Rs. 850.

. A sum of Rs. 6,683 was spent on repairs, the chief items being :—

(1) Repairing the roof of St. John's church at Cannanore, Rs. 1,715;
(2) Rebuilding the turret of the district munsif's court-house at Tellicherry, Rs. 475;
(3) Repairing the record room of the huzur cutcherry at Calicut, Rs. 572;
(4) Repairing the Malapuram church and belfry, Rs. 650;
(5) Repairing the taluk cutcherry at Manjeri, Rs. 1,580.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

these buildin[illegible]

(1) Hill bungalow at Ongole.
(2) Sub-Collector's bungalow at Ongole.
(3) Police Assistant Superintendent's bungalow at Ongole.
(4) Kodavulur bungalow.
(5) Collector's bungalow at Nellore.
(6) Taluk cutcherry and sub-jail at Kandukúr.
(7) Police station-house at Náyudupet.
(8) Deputy tahsildar's cutcherry and sub-jail at Venkatagiri.
(9) Taluk cutcherry at Atmakúr.
(10) District jail, Nellore.

Bellary.—The second-class taluk office at Siruguppa was completed during the year; but final payment was not made owing to the delay on the contractor's part in rectifying defects in the roof, which caused the measurements to be postponed until too late. The expenditure amounted to Rs. 12,771, against the estimate of Rs. 12,680.

. The Collector's office at Anantapur was completed with the exception of a stair case to the upper story, parapets, second coat of plaster, and wood oiling, fitting doors and ventilators, laying slabs to upper verandah, and substituting iron railing for masonry parapet walls. The progress of the work was not quite satisfactory owing to the contractor's failure to make proper arrangements. The expenditure on the work amounted to Rs. 49,902, against the estimate of Rs. 55,000.

. The Head Assistant Collector's office at Penukonda was completed and handed over. The expenditure amounted to Rs. 16,091, against the estimate of Rs. 16,682.

. The second-class taluk office at Bukkapatnam was completed and occupied during the year. The expenditure amounted to Rs. 12,777, against the estimate of Rs. 12,200.

. The old structure in the Collector's residence at Anantapur was removed; but nothing more could be done as no contractor came forward to take up the work, and it was not possible to arrange for the execution of the work departmentally within the short time left to close the official year. The expenditure on the work amounted to Rs. 15,997, against the estimate of Rs. 28,190.

. Improvements to the Collector's office at Bellary were carried out. The walls of the rooms in east and west wings were completed to a height of 8 feet above basement level; and door and window frames were fixed. The expenditure amounted to Rs. 8,518, against the estimate of Rs. 47,540.

. The undermentioned minor new works were carried out:—

(1) Enlarging the Collector's printing office at Bellary; estimate Rs. 1,745, outlay Rs. 1,719;
(2) A police hospital at Hospet at a cost of Rs. 653;
(3) A sub-registrar's office at Hadgally for Rs. 2,353;
(4) A sub-registrar's office at Hospet at an outlay of Rs. 2,167;
(5) The civil cemetery at Bellary was provided with a gateway and robing-room at a cost of Rs. 430;
(6) Out-houses for the Head Assistant Collector's bungalow at a cost of Rs. 460; and
(7) A strong-room in the taluk office at Kúdligi at a cost of Rs. 603.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

these buildi[illegible]

(1) Hill bungalow at Ongole.
(2) Sub-Collector's bungalow at Ongole.

. **Trichinopoly.**—Slight improvements were carried out to the post office at Teppakulam and the sub-post office at Trichinopoly at a cost of Rs. 45 and Rs. 30, respectively.

. **Tanjore.**—Out of an allotment of Rs. 1,292, Rs. 1,079 were utilized. The chief item on which short outlay was incurred was the extension of Kumbakónam post office. The work was completed.

. **Madura.**—The construction of a post office at Butlagundu was proceeded with. Out of the grant of Rs. 955, Rs. 920 were spent and the work was nearly completed.

. An outlay of Rs. 109 was incurred in repairing the post offices at Kovilur and Ammayanáyakanúr.

. **Ramnad.**—The grant of Rs. 751 was fully spent in completing the additions to the post office building at Ramnad.

. **Tinnevelly.**—An expenditure of Rs. 437 was incurred on repairing the post offices at Palamcottah and Srívaikuntham. The former was completed and the latter is in progress.

III.—PROVINCIAL—CIVIL BUILDINGS.

. **Ganjam.**—A building, for the residence and office of the Executive Engineer at Chicacole, was purchased for a sum of Rs. 1,250, and thoroughly repaired; estimate Rs. ~~3,747,~~ outlay Rs. 3,747.

3,440

. **Vizagapatam.**—The construction of a residence for the Assistant Superintendent of Police at Jeypore was completed; estimate Rs. 15,350, outlay Rs. 15,025.

. An expenditure of Rs. 9,060 was incurred in connection with the provision of additional accommodation to the huzur treasury at Vizagapatam against an estimate of Rs. 9,360. The work was completed and the building handed over to the Revenue Department.

. The following works were in progress:—

1520

(1) A police station-house at Komarada; estimate Rs. ~~1,500,~~ outlay Rs. 426.
(2) Additions and alterations to the deputy tahsildar's office at Pálkonda and the construction of a police station-house in its compound; estimate Rs. 4,920, outlay Rs. 1,876.
(3) Police station-house at Koraput; estimate Rs. 3,895, outlay Rs. 2,079.
(4) Additions to the deputy tahsildar's office at Bimlipatam; estimate Rs. 1,040, outlay Rs. 947.
(5) Improvements to the district court-house at Vizagapatam; estimate Rs. 1,861, outlay Rs. 2,231. The Executive Engineer stated that it was found necessary to do more work than estimated for: hence the excess.

was

. About Rs. 24,000 were reserved to meet the cost of the iron bridges on the Potinghi ghât road ordered from and to be paid in England, but no notice has been received that this amount has been utilized.

. Under Repairs a short outlay of Rs. 1,000 was due chiefly to a saving in repairs to warders' lines in the Lunatic Asylum, Waltair, it having been decided not to put teak in the roofs of these huts.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

. At Bangalore Rs. 1,200 and R[illegible]00 were paid to the C[illegible] pality for the conservancy of the main sewer and the maintenance of the military roads.

. The total outlay under repairs was Rs. 1,21,497 at the Presidency and Rs. 49,051 at Bangalore.

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

(1) Repairing and lime-washing walls of European Infantry barracks, Fort St. George; estimate Rs. 3,690, outlay Rs. 1,409.
(2) Re-roofing mess-house, Fort St. George; estimate Rs. 6,400, outlay Rs. 4,081.
(3) Repairing and lime-washing public quarters at the Gun Powder Factory; estimate Rs. 3,570, outlay Rs. 811.
(4) Thorough repairs to the Government granary on the beach; estimate Rs. 8,800, outlay Rs. 6,897.
(5) General repairs and covering the floor of the Army Clothing Department office with asphalte; estimate Rs. 2,670, outlay Rs. 2,327.
(6) Supplying gravel to the parade-ground and sepoys' court-yards of the Native Infantry lines, Perambur; estimate Rs. 6,490, outlay Rs. 6,308.

. The following repair works were carried out in Bangalore :—

(1) Painting doors and windows of Cavalry Agram barracks; estimate Rs. 3,975, outlay Rs. 3,918.
(2) Painting doors and windows of Royal Artillery barracks; estimate Rs. 2,487, outlay Rs. 2,378.
(3) Renewing filtering materials of the cistern at the Ulsoor Rock; estimate Rs. 1,783, outlay Rs. 1,742.
(4) Renewing filtering materials of the cistern at Dhobie's Wells; estimate Rs. 1,577, outlay Rs. 1,516.
(5) Painting doors and windows of Ulsoor Royal Horse Artillery barracks; estimate Rs. 1,782, outlay Rs. 1,746.

. **Trichinopoly.**—A sum of Rs. 6,162 was expended in repairing the military buildings and in paying compensation for quarters in the other divisions in the circle.

. The construction of public buildings for a regiment of Native Infantry was continued, a magazine and cells having been under progress; the outlay was Rs. 1,756 against a grant of Rs. 3,593.

. The construction of stone drains for the new lines mentioned above, for which a grant of Rs. 1,000 was given, could not be commenced, the estimate not having been sanctioned. The construction of these drains has since been ordered to be deferred.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

2060

The following works were completed or in progress:—

(1) Improvements to the elephant shed at Malapuram were in progress; estimate Rs. ~~2,061~~, expenditure Rs. 810.

(2) A store-room for the Madras Infantry regiment ~~sanctioned~~ stationed at Quilon was almost completed; estimate Rs. 9,334 against an outlay of Rs. 6,653.

(3) The bomb-proof roof of the military magazine at Quilon was covered with an additional tiled roof to prevent the leakage frequently complained of. The lightning conductor of the magazine was thoroughly renewed. The aggregate cost of the two works amounted to Rs. 3,210 against an estimate of Rs. 3,880.

(4) The old jailor's quarters at Calicut were improved; estimate Rs. 1,200, outlay Rs. 1,076.

(5) The family quarters of No. 2 block of West Hill barracks at Calicut were adapted for quarters for the Commissariat Sergeant and store-room; estimate Rs. 650, outlay Rs. 599.

(6) The lightning conductors on the magazine at West Hill barracks were renewed at an outlay of Rs. 590 against an estimate of Rs. 730.

(7) The supplemental estimate of Rs. 1,170 for converting the old cells in the Cannanore Fort into a double magazine and providing shelves and racks, &c., was worked out, bringing the total outlay to Rs. 3,233 against the estimate of Rs. 3,590. The expenditure under repairs, military, amounted to Rs. 32,307 against an allotment of Rs. 33,497.

North Arcot.—No major or minor works were carried out during the year. A sum of Rs. 2,977 was spent under repairs, including the usual annual contribution of Rs. 1,000 paid to the municipality on account of the maintenance of Vellore cantonment roads.

South Arcot.—Rupees 425 were spent out of a grant of Rs. 444 on account of compensation for quarters for three military apprentice overseers and rent of quarters for the Sergeant Instructor of the South Indian Railway Volunteer Rifle Corps.

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II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

Ganjam.—A sum of Rs. 1,358 was spent in repairing military hospital, cholera and small-pox shed, and the floor of quarter guard at Berhampore, and on account of house-rent to military medical subordinates at Berhampore and Chicacole.

Vizagapatam.—A sum of Rs. 2,573 was expended on the maintenance and repair of all military buildings and roads in the cantonment of Vizianagrum.

Godavari (East.)—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 692.

Godavari (West.)—A sum of Rs. 80 was disbursed on account of house-rent to the Civil Apothecary.

Bellary.—The apothecaries' quarters (double) at Bellary were completed, with the exception of painting the doors and windows. The estimate was exceeded owing to the reconstruction of old foundations and basement; to the provision of sill slabs over doors and windows, not provided for in the original estimates; flooring with slabs; and substitution of new doors and windows for old ones rejected. The outlay amounted to Rs. 6,262 against the estimate of Rs. 6,222. A revised estimate of Rs. 7,856 was ~~submitted for sanction through the military authorities~~ since sanctioned vide G.O. No. 1250 W, dated 7th May 1887.

5663

Stores and timber, to the value of Rs. 1,084, were collected for the collar-maker and wheeler's shop at Bellary; estimate Rs. ~~6,662~~. The contractor, who undertook to spend Rs. 3,000 on the work before the end of the official year, failed to do so, owing to the allotment having been given late in the year.

The following minor works were carried out:—

(1) The drainage system of the European Infantry barracks was improved at a cost of Rs. 1,721.

(2) The coffee-shop of the Royal Artillery was re-roofed with Mangalore tiles at a cost of Rs. 948, and a temporary forge and shoeing shed erected for the Royal Artillery at a cost of Rs. 345.

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

(1) The bakery at Wellington was nearly completed; estimate Rs. 35,850, expenditure Rs. 30,074.

(2) Two lying-in wards were added to the station hospital at Wellington at a cost of Rs. 2,909; estimate Rs. 3,036.

(3) Quarters for a barrack sergeant at Wellington were commenced; estimate Rs. 7,348, expenditure Rs. 3,213.

(4) The Lawrence Asylum buildings were improved at a cost of Rs. 4,595; estimate Rs. 5,790.

(5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. 2,389 and Rs. 7,040, respectively.

Coimbatore.—The following minor original works were completed:—

(1) Constructing two cisterns to hold water for fire-engines; fixing a weigh-bridge and constructing a shed over it in the stud lines; and improving the sepoy's lines at the Remount Depôt, Matigiri. The estimates amounted to Rs. 1,330, 172 and 230, respectively.

(2) Improving the rest-house at Pódanúr; estimate Rs. 1,190.

Repairs to the military buildings at the Remount Depôt at Matigiri and to the rest-houses at Pódanúr and Mettupálaiyam were carried out at an outlay of Rs. 5,660.

West Coast.—The entire project of accommodating troops at Malapuram was fully completed according to the revised estimates. The buildings finished and occupied during the year were—

1. Block No. 2 with out-houses.
2. Ward for contagious diseases.
3. All the covered passages.
4. The drains.
5. Converting the wood godown into a bakery.
6. Cattle and sheep pen.

The allotment for several works in connection with the barracks was Rs. 8,315, of which Rs. 7,691 were expended, bringing the total expenditure at the end of the year to Rs. 1,22,672 against the estimate of Rs. ~~1,35,802~~. 180102

. **Chingleput.**—The following works in connection with the new Royal Artillery barracks at the Mount were completed :—

(*a*) Barrack, east block.
(*b*) Barrack, west block.
(*c*) Three wash-houses.
(*d*) Three kitchens.
(*e*) Wheeler shop.
(*f*) Store-room.
(*g*) Latrine.

. The construction of a recreation-room, coffee-shop, plunge-bath, and drains at the barracks of the Artillery at the Mount was completed. The total outlay was Rs. 1,37,694 against an estimate of Rs. 1,46,910.

. Granite head and heel stones were provided and three gearing rooms were constructed in the stables of the Royal Artillery at St. Thomas' Mount. The total outlay was Rs. 22,914 against an estimate of Rs. 23,389.

. The construction of a coffee-shop with kitchen for the upper storey barracks, St. Thomas' Mount, was in progress. Rupees 2,165 were expended on an estimate of Rs. 6,690.

. Seven minor new works were completed at a cost of Rs. 1,232.

. The expenditure on minor new works and repairs was Rs. 27,620, and the total expenditure under repairs, including barrack-master's petty repairs, compensation for quarters, &c., was Rs. 36,236.

. The principal buildings repaired were—

(1) The south barracks at the Mount ; estimate Rs. 3,020, outlay Rs. 2,817.
(2) Garrison store-room in the staff office at Poonamallee ; estimate Rs. 540, outlay Rs. 499.
(3) Station hospital and out-houses at Poonamallee ; estimate Rs. 860, outlay Rs. 782.
(4) Three blocks of the west barracks and its out-houses at Mount ; estimate Rs. 1,360, outlay Rs. 1,355.
(5) Station hospital and its out-houses at Mount ; estimate Rs. 910, outlay Rs. 882.
(6) Roof of Sergeants-Major's quarters at Poonamallee; estimate Rs. 790, outlay Rs. 742.

. **Presidency and Bangalore.**—The following works were completed :—

(1) The conversion of A block family quarters, Fort St. George, into single men's barracks ; estimate Rs. ~~13,100~~, outlay Rs. 5,955.
(2) Additional work to the coast batteries and the maintenance of the casuarina plantations on the beach for the purpose of screening the coast batteries at a cost of Rs. 1,965 ; total outlay Rs. 8,184, estimate Rs. 8,240.
(3) Guard-rooms, kitchens and latrines for the coast batteries ; estimate Rs. 6,025, outlay Rs. 5,870.
(4) Improvements to the armament, Fort St. George ; estimate Rs. 42,035, outlay Rs. 37,435.
(5) The reconstruction of a wheel-wright shop at the Gun Carriage Factory ; estimate Rs. 7,370, outlay, Rs. 6,712.
(6) Improvements to the wash-houses at the parade barracks, Bangalore ; estimate Rs. 12,500 ; outlay Rs. 10,720.
(7) Additions to the military prison at Agram ; estimate Rs. 8,325, outlay Rs. 7,478.
(8) Cavalry stables at Agram for 66 additional horses ; estimate Rs. 5,930, outlay Rs. 5,560.

. The following works were in progress :—

(1) Conversion of racket-court in Fort St. George into a covered gymnasium ; estimate Rs. 11,890, outlay Rs. 2,600.
(2) Improving the water-supply of Fort St. George ; estimate Rs. 6,445, outlay Rs. 6,298.
(3) Public buildings for a regiment of Native Infantry on the Arab lines plateau at Bangalore ; estimate Rs. 21,636, outlay Rs. 15,188.

. Twenty-one minor new works at the Presidency and thirty-six at Bangalore were commenced and completed during the year at a cost of Rs. 10,404.

. Two hundred and ninety-two repair works at the Presidency and two hundred and five at Bangalore were carried out during the year.

. Payments, amounting to Rs. 19,297, were made to the Madras Municipality on account of house, water, and light taxes on Government military buildings outside Fort St. George, and Rs. 6,000 on account of maintenance and repairs to [illegible] and Fort beach roads.

II.—IMPERIAL—CIVIL WORKS.

. **Vizagapatam.**—Repairs to the post offices at Vizagapatam, Narsapatnam and Koraput were completed.

. The construction of a post office building at Sálúr, for which an estimate of Rs. 2,000 was sanctioned, was in progress. The outlay amounted to Rs. 598.

. **Godavari (East).**—A sum of Rs. 735 (of which Rs. 306 was spent in the previous year) was expended on improvements to the post office building at Bhadráchalam against an estimate of Rs. 830. The work was fully completed.

. An estimate, amounting to Rs. 34,135, was sanctioned for the construction of quarters for signallers to the Telegraph department at Cocanada. The work was completed at a total cost of Rs. 39,449, the expenditure being Rs. 5,529.

. Improvements to the telegraph office at Cocanadá were carried out at a total cost of Rs. 3,696, the expenditure amounting to Rs. 758 against an estimate of Rs. 4,000.

. **Kistna (East).**—A well in the compound of the Bezváda post office was constructed during the year. The estimate amounted to Rs. 280 against an outlay of Rs. 307. After three-fourths of the work had been completed the estimate required revision, owing to clay having been met with. The repairs to the telegraph offices at Bezváda and Masulipatam were executed.

. **Kistna (West).**—Rupees 804 were expended in completing the Durgirala post office; estimate Rs. 900, allotment Rs. 757. The telegraph office at Guntúr was repaired.

. **Coimbatore.**—Repairs to five post offices were carried out during the year at an outlay of Rs. 762.

. **Nellore.**—A sum of Rs. 842 was spent on the construction of quarters for the postmaster at Gúdúr; the estimate was Rs. 1,260 against a grant of Rs. 1,232. The work was almost completed.

. The post offices at Kávali and Kristnapatam were repaired during the year, but the repairs of that at Gúdúr could not be commenced till the quarters for the postmaster were finished.

. **Bellary.**—The walls of the post office at Anantapur were raised to a height of 11 feet, and out-houses nearly finished; but the work was suspended pending sanction to the construction of a telegraph office-room, which it was proposed to attach to the post office. The expenditure amounted to Rs. 1,922 against the estimate of Rs. 4,051.

. **Nilgiris.**—The Ootacamund telegraph office was repaired at a cost of Rs. 564 and the Wellington post office at an outlay of Rs. 158.

. **West Coast.**—Certain vacant buildings in the Fort at Tellicherry (late district jail) were converted into a post office and postmaster's quarters. The estimate amounted to Rs. 1,810 and the expenditure to Rs. 1,788. The work was completed. Rupees 637 were spent in repairs to eight postal buildings.

. **North Arcot.**—A sum of Rs. 76 was spent on the construction of a well for the Punganúr post office.

. Rupees 350 were spent on repairs to postal buildings and Rs. 42 on repairs to telegraph buildings.

. **South Arcot.**—A sum of Rs. 148 was expended on repairs to postal buildings.

. **Presidency and Bangalore.**—The combined post and telegraph offices were completed by the conversion of the Commissariat mule stables on the foreshore into stables for the post office mails and the construction of quarters for the sergeant in charge of the mails. The total expenditure on the combined offices amounted to Rs. 6,89,931 and the estimate to Rs. 6,92,094.

. Under minor works an estimate of Rs. 2,790 was sanctioned for additions to the lightning conductors of the post and telegraph office to bring them into accordance with the new code of regulations, and other minor additions required by the departmental officers.

. The following repairs were carried out:—

(1) Repairing and white-washing walls of the Mylapore post and telegraph offices; estimate Rs. 155, outlay Rs. 152.

(2) Repairing and white-washing the Shoolay post and telegraph offices, outlay Rs. 172.

. **Godavari (East).**—The following works were completed or in progress :—

(1) Constructing a district munsif's court-house at Peddapuram ; estimate Rs. 10,300, outlay Rs. 11,686.

(2) Sub-magistrate's cutcherry at Pithápuram ; estimate Rs. ~~8,993~~, outlay Rs. 10,045. 8983

(3) Water-supply and improvements to the existing drainage of the central jail at Rajahmundry ; estimate Rs. 33,030, outlay Rs. 30,599.

(4) Constructing registrar's office at Cocanada ; estimate Rs. ~~4,830~~, outlay Rs. 4,573. 4700

(5) Constructing a sub-magistrate's cutcherry at Tuni ; estimate Rs. 9,436, outlay Rs. 5,709.

(6) Materials for the construction of a dispensary at Bhadráchalam were being collected ; estimate Rs. 4,246, outlay Rs. 839.

(7) Constructing a residence at Dowlaishweram for the Superintending Engineer ; estimate Rs. 22,400, outlay Rs. 21,697.

(8) Constructing a residence for the Executive Engineer at Dowlaishweram ; estimate Rs. 12,500, outlay Rs. 8,909. Work in progress.

(9) Improvements to the sea-customs buildings at Cocanada ; estimate Rs. 4,310, outlay Rs. 4,820.

(10) Constructing a sub-registrar's office at Pithápuram ; estimate Rs. 2,300, outlay Rs. 2,315.

(11) Constructing quarters for the hospital assistant attached to the Public Works Department dispensary at Dowlaishweram ; estimate Rs. 605, outlay Rs. 540.

(12) Extension to the Provincial College, Rajahmundry ; estimate Rs. 1,620, outlay Rs. 1,526.

(13) Constructing a second-class station-house at Bhadráchalam ; estimate Rs. 1,826, outlay Rs. 1,769.

. A sum of Rs. 2,000 was anticipated to be utilized for repairs to the Collector's cutcherry at Cocanada and for other buildings, but the estimates for these works did not come in, as they should have, in time ; hence the short outlay.

. **Godavari (West).**—A sub-registrar's office at Pentapad was completed ; estimate Rs. 2,710, outlay Rs. 2,679.

. The following works were in progress :—

(1) Sub-registrar's office at Tanuku ; estimate Rs. 3,090, outlay Rs. 163.
(2) Taluk cutcherry at Tanuku ; estimate Rs. 21,420, outlay Rs. 19,770.
(3) Taluk cutcherry at Bhímavaram ; estimate Rs. 22,650, outlay Rs. 21,701.

. **Godavari (Central).**—The construction of a sub-registrar's office at Razole was in progress ; estimate Rs. 2,750, expenditure Rs. 2,196.

. **Kistna Eastern Division.**—The construction of a residence and office for the Superintending Engineer was completed, with the exception of the latrines ; estimate Rs. 26,775, expenditure Rs. 27,961. Out of an allotment of Rs. 1,000 for raising the compound round the Superintending Engineer's residence, Rs. 401 were spent.

. An allotment of Rs. 1,170 was granted for the addition of a room to the new treasury in the Gudiváda taluk office. Nothing was spent during the year owing to the late receipt of the allotment.

. A sum of Rs. 800 was allotted for the construction of head constables' and constables' huts at Bezváda. Rs. 408 was spent in collecting materials and the work had then to be stopped owing to the refusal of the Church Mission Society to give up the land in their school compound, where it was proposed to build the huts.

. Repairs to following were completed :—

(1) The Collector's house.
(2) St. Mary's Church.
(3) Eastern division office.
(4) Northern sub-division office.

. **Kistna Western Division.**—Trees were planted in the compound of the division office and a sum of Rs. 83 spent on their maintenance, against a grant of Rs. 115.

. Slight repairs to the division office at Duggirala and the jail buildings at Guntúr were carried out.

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

(1) Sub-registrar's office at Gúdúr.
(2) Police huts at Kandukúr.
(3) Extension of the sawyers' shed, Nellore workshops.

The [illegible] registrar's office at Addanki was in progress

. **Cuddapah.**—The construction of a taluk office at Váyalpád was in fair progress. The expenditure amounted to Rs. 9,910, against the estimate of Rs. 25,700.

. Work was in progress on the Collector's office at Cuddapah. The foundation and basement to the printing office were finished, and the superstructure was in progress. The foundation to the main buildings was nearly completed; estimate Rs. 1,43,741, expenditure Rs. 32,603.

. Of the sanctioned additions and alterations to the district jail at Cuddapah, the female ward was almost completed and the male ward No. 1 completed, except flooring and painting. The expenditure amounted to Rs. 14,741, against the estimate of Rs. 31,900.

. The number of works below Rs. 2,500 that were carried out during the year was fifteen, the outlay being Rs. 6,051.

. **Kurnool.**—The taluk office at Nandyál was in slow progress owing to difficulty in procuring labor on account of extensive railway works. The expenditure amounted to Rs. 15,662, against the estimate of Rs. 34,676.

. The sub-divisional officer's quarters at Cumbum were completed on the revised estimate of Rs. 4,794, the expenditure amounting to Rs. 4,770.

. **Nilgiris.**—A sum of Rs. 3,866 was spent in providing stone steps to the terraces, and guttering to the roof with masonry drains at Government House, Ootacamund.

. The Protestant church at Wellington was completed during the year within the amount of the revised estimate (Rs. 47,810); the outlay for the year amounted to Rs. 9,574.

. A Bench Magistrates' court at Kótagiri was commenced and nearly completed; estimate Rs. 8,060, expenditure Rs. 5,442.

. Of the undermentioned works, the first five were completed, the others were in progress:—

(1) Construction of an exercise yard for European convicts in the Ootacamund jail; outlay Rs. 4,472, estimate Rs. 5,790.
(2) The conversion of Rowe's bungalow into a police station, the outlay for the year being Rs. 5,178. The total expenditure amounted to Rs. 9,186, against an estimate of Rs. 9,170.
(3) Improvements to the Executive Engineer's office at Ootacamund.
(4) Provision of drains to the police lines at Ootacamund and to the Coonoor cemetery.
(5) Repairs to Government House, on which a sum of Rs. 9,177 was spent.
(6) The new buildings for Breeks' Memorial School were in progress; estimate Rs. 38,180, outlay Rs. 20,149.
(7) The construction of a Roman Catholic church at Wellington; estimate Rs. 30,526, expenditure up to date Rs. 7,000.
(8) Construction of a new police station at Naduvatam.

. Four minor works were carried out during the year and the buildings on Mountstuart at Ootacamund were repaired at a cost of Rs. 4,011.

. **Coimbatore.**—A new room for the huzur treasury at Salem was constructed at a cost of Rs. 2,876.

. The following works were in progress:—

(1) Alterations and additions to the quarters of the Superintendent, Central Jail, Salem; estimate Rs. 3,600, outlay Rs. 2,604.
(2) Construction of quarters for the deputy jailor attached to the Central Jail, Salem; estimate Rs. 3,660, outlay up to date Rs. 2,852.
(3) Reconstruction of a portion of the district munsif's court at Námakal; estimate Rs. 3,595, outlay up to date Rs. 2,514.
(4) The purchase and improvement of the Police Assistant Superintendent's residence at Tirupatúr; estimate Rs. 4,768, outlay up to date Rs. 4,673.
(5) The construction of a close prison at Coimbatore; estimate Rs. 19,582, expenditure of the year Rs. 1,534.
(6) Improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure up to date Rs. 4,474.

. Five minor works were undertaken and fully completed during the year under report at an outlay of Rs. 1,892.

. Thirty-five repair works were carried out during the year at a cost of Rs. 3,482.

. **West Coast.**—The district munsif's court and the record-room at Calic[illegible] which repair

Trichinopoly.—The construction of a district jail in Trichinopoly, for which a grant of Rs. 11,500 was sanctioned, was in progress. The expenditure amounted to Rs. 11,131.

. The sub-registrar's office at Manaparai was completed at a cost of Rs. 2,152, the sanctioned estimate being Rs. 2,090.

. The following repairs were carried out :—

(1) Re-roofing block No. 1, Central jail. The repairs were nearly completed ~~and~~ at an outlay of Rs. 2,586.

(2) District munsif's court at Ariyalúr, on which a sum of Rs. 490 was spent.

. **North Arcot.**—The construction of a sub-magistrate's cutcherry with out-houses at Arkónam was in progress. The outlay was Rs. 8,186, against an estimate of Rs. 14,245.

. Improvements to the sub-magistrate's cutcherry at Punganúr were put in hand, and an outlay of Rs. 2,410 was incurred, on an estimate of Rs. 4,480.

. Seven minor new works were in progress, of which five were completed. The total outlay amounted to Rs. 7,484.

. Twelve repair works were carried out at a cost of Rs. 5,501.

. **South Arcot.**—A sum of Rs. 1,200 was spent on collecting materials for the construction of a sub-registrar's office at Villupuram; estimate Rs. 3,020.

. Eight minor new works, on which a sum of Rs. 2,636 was spent, were in progress, of which three were completed, viz. :—

(1) Sub-registrar's office at Oolundurpett.

(2) Conversion of the office of the Assistant Superintendent of Police into a sub-registrar's office at Tirukoilur.

(3) Lascars' sheds in the compound of the South Arcot divisional office, Cuddalore.

. Under Repairs a sum of Rs. 1,985 was spent.

. A contribution by the Cuddalore Municipality of Rs. 60 for survey establishment in connection with the preparation of an estimate for a bridge across the Gadilam river was spent for the purposes. A sum of Rs. 14, being the balance of a contribution given by the same municipality in 1885-86 for repairs to the powder magazine at Munjakuppam, was utilized in refixing the lightning conductor.

. **Chingleput.**—The light-house at the Seven Pagodas was in progrees on an estimate of Rs. 8,165, sanctioned in G.O., No. 2708 W., dated 15th October 1886.

. The work consists of—

(1) The construction of a stone platform for a fourth order light.

(2) the construction of Superintendent's quarters.

(3) the construction of lascars' lines.

(4) the construction of two sentry boxes.

. The upper-story of the Agricultural College at Saidápet, for which an estimate of Rs. 18,370 was sanctioned in March 1885, was commenced and completed, with the exception of the tower and lightning conductors. The expenditure was Rs. 16,096.

. Seven minor new works were completed at a total cost of Rs. 6,974.

. The buildings at Government House, Guindy Park, and other buildings were repaired at a total outlay of Rs. 15,502.

. **Presidency and Bangalore.**—An expenditure of Rs. 4,419 was incurred on materials for the alterations to the roof of the north and south wings of the Public Works offices at Chepâk. The sanctioned estimate was Rs. 5,035. The work was completed during the year. The saving was chiefly due to the utilization of materials in the old roof.

. An estimate of Rs. 5,764 was sanctioned for the construction of tiffin-rooms for the clerks of the Revenue Board offices and students of the College of Engineering. The old tiffin-rooms, which stood on the south side of the College of Engineering, an old Carnatic building, a part of which was in a dilapidated state, were pulled down to make room for the extensions to the College of Engineering and a new range of tiffin-rooms was constructed on another site. By utilizing a large quantity of the serviceable materials belonging to the old tiffin-rooms a saving was effected on the estimate. The total expenditure amounted to Rs. 5,215.

. Additions were made to the College of Engineering, Madras. The walls were [illegible] feet above the ground level and [illegible] materials collected

. A sum of Rs. 10,529 was spent during the year for minor (original) works, principally—

(1) Making road in the open land north of the Ophthalmic hospital.
(2) Cleaning and levelling the site of the old fishing village.

. Rs. 17,717 was spent on repairs to buildings during the year including the maintenance of the foreshore and ride at the south beach and the repairs executed to the old eye infirmary; Rs. 4,809 were paid on account of municipal taxes for the Public Works Department offices and Government brickfields.

. New seats were provided to St. Matthias' Church, Vepery, at a cost of Rs. 2,404; estimate Rs. 2,930.

. Rupees 3,669 were spent on improvements to, and extension of, the verandah of the main record-room, Government office, Fort St. George; estimate Rs. 4,290.

. The construction of the city reserve police lines at Pudupet was commenced, and an outlay of Rs. 5,461 was incurred against the estimate of Rs. 27,785 in the collection of materials.

. The construction of an upper storey to the office of the Deputy Commissioner of Police was commenced, and an outlay of Rs. 2,537 was incurred in the collection of materials against an estimate of Rs. 10,290.

. The following works at Her Majesty's Penitentiary were commenced and in progress:—

(1) Quarters for the hospital assistants; estimate Rs. ~~4,726~~, outlay Rs. 4,960.
(2) A new work shed; estimate Rs. 3,200, outlay Rs. 2,545.
(3) New roofs to the close prison cells; estimate Rs. 11,200, outlay Rs. 2,290.
(4) Twelve solitary cells, commenced last year, were completed; estimate Rs. 5,750, outlay Rs. 5,308.

. A sum of Rs. 1,907 was spent on an estimate of Rs. 2,711 for ornamenting the ceilings of the nave of St. George's Cathedral, and the work was postponed for completion in 1887-88.

. A commencement was made on the new gate-way for St. Mary's Cemetery, and Rs. 2,992 were spent on an estimate of Rs. 6,285.

. The property known as the Government Female Normal School at Egmore was purchased from the proprietor for Rs. 12,000.

. A cottage for twelve lunatics and a block of six rooms for native criminals at the lunatic asylum were commenced and completed at an outlay of Rs. 8,862 against an estimate of Rs. 9,630.

. A sum of Rs. 4,493 was spent at Madras on furniture for Government-house at Madras, Guindy and Ootacamund.

. Thirty-two minor new ~~wells~~ were carried out at a cost of Rs. 10,098.

. One hundred and twenty-five repair works at Madras and twelve in Bangalore were carried out. None of the works at Bangalore were of much importance.

. The following are the more important repairs of those carried out in Madras:—

(1) Repairs to the Government Secretariat buildings, Fort St. George; estimate Rs. 3,635, outlay Rs. 1,054.
(2) General repairs to Government House, Banquetting Hall, Marine Villa, and out-houses attached; estimate Rs. 11,550, outlay Rs. 11,960.
(3) Repairs to the Lock Hospital, Black Town, Madras; estimate Rs. 6,755, outlay Rs. 4,249.
(4) Repairs to the roofs of the Public Works Workshops and Stores and renewal of the roof of the Workshop foundry; estimate Rs. 6,855, outlay Rs. 5,495.

. A sum of Rs. 536 was spent on alterations and additions to the petroleum shed on the beach which was completed last year.

. Under repairs a sum of Rs. 298 was received from the Secretary, Biden Home Committee, for carrying out repairs to the ~~home~~, and ~~Rs.~~ Rs. 3,422-6-5 from the Secretary, Military Female Orphan Asylum, for carrying out certain works to the asylum buildings. Out of the first mentioned contribution, a sum of Rs. 282 was spent and the work completed. The other contribution was received only in March.

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

(1) A district jail at Tanjore; estimate Rs. 2,11,100, outlay Rs. 2,02,771.
(2) A police station-house at Tanjore; estimate Rs. 6,740, expenditure Rs. 7,113.
(3) Compound mud-walls of the warders' huts attached to the district jail, at a cost of Rs. 1,255, against an estimate of Rs. 1,420.
(4) Alterations to a portion of the old taluk cutcherry for the accommodation of the sub-registrar's office at Triviar; estimate Rs. ~~1,120,~~ outlay Rs. 1,225.

. The following works were in prog

. The allotment under Minor Original Works was Rs. 1,345; expenditure Rs. 1,217; of this Rs. 1,055 was expended in constructing a second-class police station-house at Iyalur and Rs. 161 on securing the treasury-room of the taluk cutcherry at Tirumangalam; and these two works have been nearly completed.

. A sum of Rs. 1,800 was allotted to repairs. The expenditure, which amounted to Rs. 2,188, was utilized chiefly in :—

(1) Repairing the Sub-Collector's bungalow, taluk cutcherry and Public Works office at Dindigul;
(2) Maintaining the garden in Terumal Naick's palace at Madura; and
(3) Fixing lightning conductors in the palace at Madura.

. **Ramnad.**—The expenditure during the year on work of converting the police hospital at Ramnad into a residence for the Assistant Superintendent of Police was Rs. 3,152, against the grant of Rs. 3,239; the work was fully completed.

. **Tinnevelly.**—The following works were :—

(1) The construction of a record-room and improvements to the district court-house at Kokarakulam; estimate Rs. 17,875, expenditure Rs. 12,183.
(2) The construction of a registrar's office at Kokarakulam; estimate Rs. 4,380, expenditure Rs. 4,268.
(3) The construction of a sub-registrar's office at Srívilliputur; estimate Rs. 2,705, expenditure Rs. 2,638.
(4) Addition of a compound-wall to the sub-jail at Sankaranainárkoil; estimate Rs. 4,312, expenditure Rs. 3,817.

. The following minor original works were completed or in progress :—

(1) Sub-registrar's office at Vattirayirupur; estimate Rs. 2,142, expenditure Rs. 2,242.
(2) Sub-registrar's office at Sattankulam; estimate Rs. 2,080, expenditure Rs. 2,014.
(3) Third-class police station-house at Singhikulam; estimate Rs. 1,137, expenditure Rs. 1,104.
(4) Drainage work for the district jail at Palamcottah; estimate Rs. 370, expenditure Rs. 368.

. Repairs to the buildings below mentioned were completed :—

(1) Head Assistant Collector's bungalow.
(2) Public Works Department sub-divisional officer's bungalow at Shermádevi.
(3) The Sub-Collector's bungalow at Tuticorin and some other petty works.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Vizagapatam.**—The construction of the Potinghi ghât road was completed with the exception of the iron work for one of the two bridges, which has been ordered from England; estimate Rs. 4,56,581, outlay Rs. 4,34,639.

. An estimate of Rs. 2,72,700 was sanctioned for the construction of a road from Potinghi to Koraput. A sum of Rs. 30,440 was spent on the work, which was in slow progress owing to great difficulties experienced.

. The work of surveying and levelling the road from Koraput to Jagadalapur was put in hand. Plans and surveys of 35 miles beyond Koraput towards the Central Provinces were completed. Upwards of 100 miles remained to be done. The expenditure amounted to Rs. 1,012, against an estimate of Rs. 1,500.

. Under Repairs a sum of Rs. 18,691 was expended in maintaining the Potinghi ghât road, against a grant of Rs. 18,170. The roads were maintained in fair order and the damages done to the road by the heavy rains during the monsoon were repaired.

. **Godavari (East).**—The navigation works at Dumagudiem were maintained at a cost of Rs. 7,982 during the year.

. **Nilgiris.**—Under this head the following works were completed :—

(1) A new road up Mountstuart at a cost of Rs. 8,427.
(2) Improvements to the road from Ootacamund to Gúdalúr.
(3) Rest-houses with out-houses on the ghât at the 9th mile below Coonoor at a cost of Rs. 7,359.
(4) Widening and remetalling the ghât road from Kullar to Gúdalúr at a cost of Rs. 3,671.
(5) A new bridge at Barliyár partly completed.

The following works were completed or in progress :—

(1) Planting the foreshore from the Napier bridge to Pycroft's road with grass; estimate Rs. 4,768, outlay Rs. 4,748.

(2) Continuing the stone dwarf wall along the western side of the South beach road from Pycroft's road to the old Hindu cemetery; estimate Rs. 11,834, outlay Rs. 9,335.

Four bunds were thrown up across the Cooum river to keep the river-bed covered with water up to the South Indian Railway bridge. An expenditure of Rs. 896 was incurred on this account and a further outlay of Rs. 835 on repairs to these bunds, and the work of clearing the water between them of weeds. A total outlay of Rs. 850 was spent on the general conservancy of the river.

Tanjore.—A masonry wall for the protection of Kumbakónam town on the south side of the Cauvery was constructed at a cost of Rs. 2,257, against an estimate of Rs. 2,330.

VI.—LOCAL INCORPORATED.

Godavari (East).—The total expenditure up to the end of the year on the Covur-Munjair junction canal amounted to Rs. 1,40,855, against an estimate of Rs. 1,45,525.

A sum of Rs. 5,431 was spent on the construction of an iron lattice girder bridge at Vencatakrishnapuram lock, of the Sámalkót canal, against an estimate of Rs. 5,550. The bridge was completed and opened for traffic.

A short outlay of Rs. 1,876 under Repairs was due chiefly to estimates not having been received from the Executive Engineer, Godávari Eastern division, for the full amount of allotment.

Kistna (East).—The construction of a landing stage at Bezváda was in progress. Out of a grant of Rs. 7,788, only Rs. 4,098 were spent. The retaining wall was nearly completed and about one-third of the stone pitching to the bank carried out. The total expenditure amounted to Rs. 17,875, against the estimate of Rs. 21,566.

Kistna (West).—The river and canal banks used as roads were maintained in proper order at an expenditure of Rs. 937, against a grant of Rs. 1,000.

Materials were collected for the construction of a culvert under the good-water channel at Nizampatam. Owing to the late sanction, a sum of Rs. 120 only was spent on an estimate of Rs. 900.

Trichinopoly.—A sum of Rs. 626 was spent in maintaining 20 miles of road in this district.

Tanjore.—Under this head a sum of Rs. 5,987 was spent in maintaining 109 miles of road in this district.

Negapatam.—A sum of Rs. 3,740 was spent in maintaining 42½ miles of road in this district.

VII.—LOCAL—EXCLUDED.

Ganjam.—An expenditure of Rs. 2,11,065 was incurred in constructing an iron pier at Gopálpur against an estimate of Rs. 2,30,903. Seventy ~~buoys~~ were completed up to the end of March 1887 against the estimate of 93. A revised estimate for Rs. ~~3,05,000 had to be submitted~~ 308,200 was since sanctioned.

Godavari (East).—A sum of Rs. 1,031 was spent in setting up a new fourth order dioptric light at the Hope Island light-house against an estimate of Rs. 954.

Vizagapatam.—The second-class order light for the Santapally light-house was unpacked and set up at a cost of Rs. 308.

A new lightning conductor has been ordered from the Public Works Stores, Madras.

Kistna (East).—The silt in the salt creek below the tidal lock at Masulipatam was cleared away. Rupees 475 only was spent out of an allotment of Rs. 1,560 owing to the allotment having been given late in the year.

Nellore.—The grant and outlay under this head in the Buckingham canal

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Administration Report
1886-87.

I General Remarks.

1. The administration of the department devolved during the year under review on Colonel J.O. Hastie R.E., in succession to Colonel Shaw Stewart R.E., who resigned his position as Chief Engr and Secretary to Govt on the 8th Sept. 1886.

The following is an extract from the Proc. of Govt recorded on the occasion:—

"In accepting Colonel Shaw Stewart's resigna-
tion

tion of his appointment as Chief Engineer and Secy to Govt. P.W. Dept. from the date named, his Exy the Governor in Council desires to place on record his very high appreciation of the service which that able and zealous officer has rendered to the State during the long period of his connection with the Public Works Dept."

In succession to Colonel Hartley, Lieut-Col. J. Pennycuick R.E., officiated as Chief Engr for Irrigation & Joint Secy to Govt, from the 8th Sept 1886 to the 23rd March 1887, when Colonel H.R. Mead R.E. returned from furlough & assumed the permanent appt.

appointment, with the rank of Chief Engineer II Class.

2. Grants & Expenditure.

The original grant under Imperial Military Works was Rupees 6,44,400; the revised estimate was Rs 6,25,400, and the expenditure amounted to Rs 5,67,665.

Under Imperial Civil Works, the original grant was 37,600; the revised estimate was Rs 57,000, and the expenditure amounted to Rs 42,712.

Under Provincial, the figures were, - original grant - Rupees 21,00,000; revised estimate, Rs 22,84000, and expenditure Rs 21,56,317.

3. Madras Harbour Works.

As stated in the Administration report for 1885-86, the Act to provide trustees for the Harbour of Madras received the assent of the Viceroy and Governor General on the 20th February 1886. The Act was brought into force from 1st June 1886, from which date the control of the Harbour works

and its establishment was made over to the Harbour Trust Board. For the remainder of the year, the audit of the construction accounts was conducted, as before, by the Examiner of P. W. Accts.

The progress made on the Harbour Works was much less than was hoped for, but still a decided advance was accomplished during the ~~year~~ year ~~under review~~, and the new system of building and protecting the walls was thoroughly started.

The superstructure of the North Pier was advanced by a length of 445 lineal feet, 645 concrete blocks having been used for this purpose, all thoroughly bonded together, and pinned by iron cramps to one another.

In addition to this work, 828 blocks representa-

=ing 24,382 tons of concrete, were deposited in the wave breaker on the sea side of the North Pier.

In the rubble foundations 98,560 tons of stone were deposited during the year.

The South Pier superstructure was advanced by a length of 300 feet, 383 blocks being used in the contruction. There were also 552¼ blocks placed ~~on the~~ our side to form ~~the~~ a wave breaker, and 16,242 tons of stone were deposited in the foundations. Much difficulty was experienced at the South Pier, in consequence ~~in consequence~~ of ~~the~~ old blocks ~~of the former~~ from the ruined work being thrown ~~by the sea~~ into the line of new foundations; but many of these blocks were removed in a complete state and were deposited in the wave breaker at each Pier.

Concrete blockmaking ~~progressed~~ went on fairly well during the year, and 2151 blocks of different shapes were made, but the full speed of blockmaking was not attained in any one month.

From Pallaveram quarries 2,01,451 tons of stone were received in the year under review, and the work at the quarry was kept up to the required degree of speed on the whole. In December 1886 the contractor for this branch of the work died suddenly. ~~and a~~ A new contractor was

appointed by the Harbour Trust Board.

The expenditure during the year was Rs 8,14,798 divided as below:—

	Rs
Works	7,93,359
Establishment ..	68,321
Tools & Plant ...	70,666
	9,32,346
Deduct debits to suspense heads of account ...	1,17,548
Net Expenditure	Rs 8,14,798

The grant for the financial year was Rs 10,19,100.

On May 23rd and on November 8th to 9th, two severe cyclones passed near Madras, and caused very high seas. No damage was done to the Works however, but the storm of November caused serious encroachments of the seas at Nagapattam; and a portion of the enclosure wall of the Baden Home for sailors was destroyed.

On May 23rd two native vessels were totally wrecked and some of the divers on the works behaved very gallantly in rescuing the crews, for which acts they were rewarded with silver medals by the Harbour Trust Board.

~~4. Kobalpur Pier at~~

the end of 1885-86, almost all the materials for this work, as designed, had been delivered and construction had progressed to the tenth stage. During the year ~~under review~~, the progress was not so great as had been expected, and the end of the year found the work carried out only as far as the seventieth bay (there will be ninety-three in all, exclusive of the two lengths of the pier shorewards, in need of masonry abutment). As the work was carried on, it was found that differences in the

sea bed levels
~~Configuration of the bottom~~
those
from ~~that~~ which obtained
when the design was made
necessitated the use after
the seventeenth tier of
longer piles than those
provided for, and this
rendered it ~~desirable~~
advisable to put extra
bracing to the end sections
of the pier - Some hard
ground was also met
with, for screwing through
which the Contractors
made additional claims.
A revised estimate
therefore became necessary,
and was under preparation
at the close of the year -
The total expenditure
on the work to the end
of the year was Rupees
2,13,593

5. Cruz milagre Dam

No other work carried
out during the year in
connection with the dam
was dropping stones along
the toe of the revetment
on the backwater side
and raising the
revetment on the
lagoon side to a
uniform level - No
expenditure was incurred
1866.

6. Mangalore Harbour.

In March 1886, the Supty Engineer submitted suggestions for cutting off the connection between the two rivers flowing into the Harbour by means of strong bunds thrown across the backwater, each bund to contain a lock for the passage of country vessels. These proposals, the cost of which was roughly estimated at Rs 1,50,000/-, were characterised by the Port Officer, Madras, as providing a very —

complete solution of
the Mangalore difficulties,
if only the intractable
nature of the rivers, and
the shifting propensities
of the sea sand could
be kept out of sight.
He considered at the
same time that the
circumstances of the port
did not justify the
~~enormous~~ large
~~charges~~ expenditure
involved, while the
success of the proposed
operations was far from
certain. It was found
moreover that the
monsoon floods of 1880
had improved the
condition of the harbour,

and the Port officer
strongly advised that
nature should be left
to herself for some time
longer. The Government
thereupon resolved to
defer action on the
proposals for improving
the port.

printing Sharp, & Ruidy
see that B dispose entirely
of this portion of the Job.

Clean proofs of
both Chapters can then
be sent to me - W has
read through & approved
the Paras drafted by
me - & has requested
that the final proof
of the entire & Report
may be submitted to
him before it is struck
off - This can be sent
up home, after I return the
first clean proof I
in the form of a
couple bound copy
of the Report - with
maps & all - Shall
after looking through
it, send it to you
on tour, or submit
it to him after his
return, according
to circumstances.

Yr

Will be back

all cases which have come

S.A.W.

I send herewith, the
plans for Chapter I of
the Admy Report.
Kindly have the matter
put into type as soon —
as you have doubtless
by this time got ready
the matter for Chap II.

When the rough
proofs come in, Kindly
have all figures checked
carefully by B, &
the wanting figures
in my bares; regarding
expenditure, entered.
The figures given in
the para relating to
grants & expenditure
are those supplied
by C in his preliminary
report — Kindly have
them compared with
the final figures, &
corrected if necessary.

The Press can
be asked to do the

advance copies at least
long before that date
to Public Dept, for
we must not let them
post us in the Gazette
for non submission of
the report by due date!

Chr
23.7.87

Chapter V queried
by me for Govt. Note to
state what is published
up to 1886-87 in cases
where required —

Chapter X

The figures for final
expenditure will
be entered when
received from
Treasury

X II

N
11/8

* as these figures
are not published
by C the proof

If not the figures
will be entered

My dear Kirk,

The stops are put at the beginning of each para. to make it easy when they are numbered as it will involve overrunning the lines which will

first-clean proofs, the

[illegible] Plates I only

Cruse Delay and Bromley Solicitors
do this.

5/1883

the press room, & all others are not ready before 15th Sept. ~~11th~~ Then we shall be able to send [illegible]

I Am.

All figures adopted in each report have been checked & the wanting figures requisitioned. I have lately supplied - Part- I has been printed & stereotyped & multiplied & copies sent to Commissioners. Part II is in the Queen's Printers hands. Part III will be ready [illegible]

all cases which have come in

H.C.

What has and is being done about the Administration Report?

F.B.

9/8.

P.S.

I hope the proofs were carefully corrected - Has C.A.W's Part II come down yet? This should go to him as soon as possible

SAW

Proof of Admin Report returned herewith passed by W.

Kindly arrange to have a clean proof looked over & then struck off - The figures will no doubt be compared with the proof which I understand was sent to C for check.

Please also arrange that advance copies shall be sent to Public Departments before 15th Sept - Copies for G.G.P.O. also last letter to be sent in advance.

Before you go away on p.l. will you kindly arrange about paper, binding &c - all same as last year.

C.H.

W. 9/8/24

In Part-II, I see that "were" "Fines" are used indiscriminately after "Reports —" - Please make it "were" in all cases, for sake of consistency - Have corrected

Re tenders and tan

C A W

7. Vepopalam Harbour.

Estimates for the filling in the abandoned boat basin & for diverting the town drainage from the foreshore were under preparation by the Board at the close of the year, and a scheme for the drainage and water supply of the town was under investigation by the Executive Engr.

(8) Bangalore Water Supply -

The proposals of the Govt for improving the water supply of the troops at Bangalore, a brief sketch of which was given in the Admin Report for 1885-86, were laid before the Govt of India in September 1886, and the close of the year no reply had been received. The catchment of the Halsur tanks was being raised about 4 feet by the Municipality of Bangalore with a view to increase the storage capacity of the tanks, & improvements to the upper Halsur & the lower Millers tanks were also

being carried out.

9. Ashtamund Water Supply - The improvement of the water supply of Ashtamund was one of the projects recommended by the Committee of 1887. Detailed estimates amounting to Rs 1.70.000. for improving the water supply to that portion of the Station lying to the north of the lake, were completed by the P. W. Dept in Dec 1884, but owing to the inability of the Municipality to raise the requisite funds, no action could be taken towards putting the works in hand. The cost of the water supply scheme for the entire Station

Vide

was estimated approximately at ~~Rs 1,50,000~~ 2½ lakhs, half of which was the first proposed to contribute, but on further consideration, in June 1886. they resolved to carry out from Provincial funds, some of the ~~scheme~~ project as related to the northern side of Ootacamund, & to leave the portion relating to the southern side, estimated to cost Rs 75,000, to be dealt with by the municipality. A grant of Rs 1,35,000 was allotted, and arrangements were at once made to commence the work. The scheme provided for improving & extending the

the catchment area of the Marlimund reservoir, & for delivering the water to the inhabitants through ~~the~~ iron pipes, instead of the existing open channels - at the end of the year, the service reservoir below Snowdon House, & the duct for conveying water from the additional gathering ground to near Snowdon to Marlimund, were nearly completed, while the iron pipes, whose arrival had been seriously delayed by the breakdown of the steamer conveying them, were daily coming in. The expenditure on the work

Work during the year

Amounted to Rupees

1,11,085

10. Artesian boring in the Kortalayar Valley.

The experiment of sinking an Artesian Well in the Peoples Park at Madras having failed, Monsieur A. P. de Closets recommended that a further experiment should be made in the alluvial valley of the Kortalayar, not far from the head of the Canal conducting the waters of that river into the Cholavaram and Red Hills tanks. Monsieur de Closets expressed strong hopes of success in that locality, and Dr. Krug, Superintendent Geological Survey of India,

and Mr. Bruce Foote, of the same department, having pronounced the proposal to be a reasonably promising one on geological grounds, the Government authorised a trial boring to be made under Monsieur de Closets' superintendence at a site suggested by Mr. Bruce Foote, slightly different from that selected by Monsieur de Closet. The work was commenced at the end of June 1886, and an ascending sheet of water was struck at a depth of 40 feet. As this however did not rise to more than three feet from the surface

surface, it was considered advisable to continue the boring, and in December 1886, a depth of 153 feet had been reached - a fresh estimate for continuing the boring to 200 feet was then sanctioned, and at this depth, which was reached before the close of the official year, although ascending water had not been tapped, the conditions continued to be favourable - The extension of the boring to 300 feet was therefore authorised, and a revised estimate was called for - The expenditure to the end of March amounted to Rs 3359.

II. Wynaad Communications.

Good progress was made on the work of reforming the Calicut-Vayitri Road — the collection of metal in the 12th, 16th and 17th miles was nearly completed, and a good part of that required in the 11th, 18th, 19th, 20th and 21st miles, while the opening of all catch drains was nearly finished. many sites of tunnels were marked out, some were in progress, and materials were being collected at the site of others.

The iron work for all the bridges on the road was received from England and that for the Kodungom

Payen Bridge carted to site –
about three fourths of the
Jambracheri gleat was finished
and the remainder was in
good progress – The great
land slips which occurred in
July and August 1886. caused
much extra work in special
repairs, but all removable
matter had been taken away,
and all dangerous trees
cut down – Strong and well
built revetments were made
to support the road.
The total grant for the year
for Work on the Calicut
Vayitri Road, including
special repairs, amounted
to Rs 135,085, while the
expenditure was Rs 135,450–

The

~~The allotment was thus more~~
~~than worked out.~~

The only work done
by the Department on the
Vayitri-Gudalur Road was in
connection with the Sholadi
Bridge, the construction of
which was commenced in
1885-86. During 1886-87 a large
quantity of stone and other
material was collected at site,
the iron work was received
from England, and the
masonry commenced – The
expenditure was Rs 12,425 against
a grant of Rs 16,991–

The Calicut-
Gudalur road was
completed ~~during~~ during
the year, with the exception
of a few revetments
& parapets, & was

in

in excellent order -

12. Patunge - Korapet Road

The progress on this work was very slow owing to the extreme unhealthiness of the locality. Every subordinate sent to it, ~~was shortly~~ ~~sent to it~~ invalided ~~time to leave it it~~ with ~~fever~~ fever. The assistant Engineer, Mr Knowles, though frequently suffering from fever, remained at his post, but without adequate subordinate assistance he could not do very much - Labor was also very difficult to obtain along the line of road - ~~The Executive Engineer, who also was attacked with fever when he visited the place, was~~

quite despairingly of the work, but it was pointed out to him that similar trials and difficulties were experienced in the construction of the Bolghi Ghat, and were at last overcome by dogged perseverance -

The iron work for two bridges on the Patnighi Kanapet Road and for one bridge on the Patnighi Ghat was ordered from England

The wheeled traffic on the Patnighi Ghat has increased ~~is surprising~~ considerably, ~~&c~~ and averaged during the year 2316 Carts a month - The effect on the country above the ghat must be

be great. The Collector writing from Koraput in March 1886 said "Carts come by the bungalow where I am now writing, and where I have in former days longed for even two carts to help me in my work, literally in hundreds"

~~The~~ Surveying and levelling for a continuation of the road from Kanapet to Jagdalpur was carried out under considerable difficulties owing to the unhealthiness and wildness of the country. Survey and plans for 35 miles were however made

(13) Road from Cumbum to the foot of the Gudalur Peermade ghat. No improvements to this road, estimated to cost Rs 90,507, were carried out previously in the hands of the District Board, who were carrying on the works from funds supplied by the P.W. Dept. Owing to insufficient supervising establishment, the progress was very slow, and at the end of 1885-86, the work was ordered to be resumed by the P.W. Dept for execution. During 1886-87, the progress was not much more satisfactory than in

the previous year - The expenditure to the end of 1885-86 was Rs 46,375, and that in 1886-87 was Rs 9204, against the original budget grant of Rs 12,285. Several of the bridges on the road were nearly completed or in progress, & materials were in preparation.

14. Bridge over the river Vaigai at Madura - The estimate for this bridge, amounting to Rs 2,46,600 was sanctioned in February 1886, & the work was at first under the direct agency of the District Board - In October 1886. however, it was transferred to the P.W. Dept for execution, funds being supplied by the District Board - On the 8th December 1886. the foundation stone was laid in the left abutment of the bridge, by His Excy: the Viceroy - When the work was taken over, a siding from the stone quarry to the bridge had

been almost completed laid, & pumping and mortar grinding machinery had been procured. Work was not begun in earnest until the end of the Christmas holidays. When the piers were commenced, and in the following three months, six piers and the flooring between them were raised to plinth level. The next four were in progress. Work was somewhat ~~retarded~~ retarded by heavy rain on the 28th March, when fine weather might have been expected, but fortunately no actual damage to the work oc-

curred. Various minor changes in the design were found necessary, & the rates originally allowed were found insufficient, a revised estimate became necessary, & was under preparation at the close of the year. The expenditure during the year was Rs 27,171 against a grant of Rs 27,143.

15. Improvements at Ootacamund. The greater part of the land between the margin of the Lake and the carriage road has been acquired by Govt. and was being fenced in at the close of the year - Outlay was also incurred in improving the appearance of this land by clearing it of wattle & scrub jungle -

A new road round Hill from Messrs Oakes & Co's premises to the market was made at a gradient of 1 in 20, and from

a great convenience to the residents. A raised footpath along the road from Charing Cross to the market was also under construction.

(16) Improvements to the South Beach Reclamation.

The extension of the promenade from Elliot road to St Thomé, a distance of 1500 feet, was in active progress. This section will complete the promenade from the Napier bridge to St Thomé, a total distance of 10,666 feet. The extension of the stone dwarf wall along the side between Perrett road and the Hindu cemetery was also in active progress. The municipality finishing village to the south of the Presidency College was entirely removed, and the ground

ground levelled; and a new village for the fishermen was constructed to the west of the Canal. The many difficulties connected with the removal of the fishermen were successfully overcome by the assistance rendered by the Dept by Devan Bahadur R. Raghunatha Rao - The municipal sewage farms adjoining the fishing village & extending to the Hindu Cemetery were taken over & closed for cultivation, and Cremation in the Hindu cemetery was stopped at the end of the year -

17. Tirumal Naicker's Palace, Madura - The total sanction for the restoration of this building & its adaptation for public offices amounts to Rs 3,31,985, and the expenditure up to 31st March 1886 was Rs 2,82,836 - The works in progress during 1886-87 were on the undermentioned estimates, -

(a) Completing Restoration, Rs 101,500

(b) Locating the Judicial Court — " 13,390

(c) Locating the Collectorate — " 51,009

Of these, the first and second were fully worked out, and work on the third estimate was done to the extent of Rs 22,104 - The total outlay on the

palace works to the
end of 1886-87 was
Rs. 3,11,649

18. St. Joseph's College buildings at Nazpalam -

These buildings, formerly the property of the Jesuit Mission, were purchased by the Govt in Sept 1886, for Rs 30,000. for the accomodation of the undermentioned public offices, -

Head Asst Collector
Executive Engineer
Asst. Supt of Police
District Munsif
Tahsildar
Sub Judge
Sub Magistrate -

At the close of the year, the Offices of the Executive Engr & the Tahsildar were located in the buildings, & estimates were under preparation to meet the requirements of the other offices.

19. Building Churches at Wellington - An estimate amounting to Rs 38,161 for constructing a Protestant Church at the building Station of Wellington, was sanctioned by the Govt of India in July 1894, & the work was commenced in the same year - As the work progressed, it was found that the cost had been under estimated, & a revised estimate amounting to Rs 47,870 was finally sanctioned - The building was completed in 1896-97 within the amount of the revised estimate

A divine service was held in it for the first time in March. The church is a handsome one, designed by the late Lt Colonel Meorant R.E., & though originally intended to contain 300 sittings, is found to accommodate conveniently 450. The station was previously been without a place of publick worship, & services were held in a barrack room.

The Construction of a Roman Catholic Military Church at the same Station, to contain 200 sittings was sanctioned in December 1856. The work is being carried out by the Roman Catholic Chaplain, from funds supplied by Govt, & under the supervision of the Executive Engineer.

(20) New building for the Brucks Memorial School Ootacamund. The accommodation in the Collector's office having long been found inadequate for the several departments located in it, it was proposed to provide the additional accommodation required by taking over the existing Brucks School buildings, which are ill adapted for purposes of the school & in objectionable proximity to the public offices, and converting them into a Court for the Sub Judge & an office for the Regis-
trar

tion. The School Committee agreed to the alienation of the buildings on the ~~Barbon~~ condition that a new building for the school be provided by Govt, & an estimate amounting to Rs 38,180, was accordingly sanctioned for a new school house on a handsome design.

A site was selected on Mount Stuart, Commanding the Common Road, & the work was commenced in August 1946. By the end of the year, good progress had been made, the expenditure having been Rs. 21,750

(21) Adam memorial fountain, Observatory Hill.

A sum of Rs. 13,770 having been raised by public subscription for the erection of a memorial at Observatory Hill to the late Rt. Hon. W. P. Adam, Governor of Madras, & the Committee having procured from England at a cost of £830, a handsome iron fountain, the fac simile of the one in front of the Town Hall at Leeds, ~~designated~~ the Govt undertook the erection, the construction of a stone basin, & its connection with the Observatory Hill water supply system.

The total estimate for the work amounted to Rs 16,830, the difference between which ~~and~~ the sum & the amount of subscriptions was contributed by the ~~Govt~~ Govt. The fountain was erected before the end of the year, on a site in front of the Collector's office, & is an ornament to the station.

(22) Addition to the Madras College of Engineering. To provide the additional accommodation necessary to meet the requirements of the sanctioned scheme for the reorganisation of the College, an estimate amounting to Rs 90,066 was sanctioned in Sept. 1916. Funds were provided both in the Official year, last before its close rapid progress had been made. The new buildings will form an extensive addition to the ~~College~~ the South end of the College & will be in general keeping with the

façade of the Rd
Palace -

23. P. W. Stores Mr. A.

Joyce Executive Engineer 3rd Grade who was appointed to the charge of the P. W. Stores and Workshops on Mr. O'Connell proceeding on furlough to Europe, assumed charge on the 9th March 1887, and at once entered on taking stock of the Stores - The whole of the articles were counted and weighed, thus completing the checking of the entire stock which was found correct and corresponded with the Ledger balances. Mr. Joyce also examined the Machinery and the Plant in the custody of the Storekeeper of Machinery and found them correct - ~~Those~~ Machinery belongs chiefly to the Ordnance and Paper Stamping Departments -

An attempt was made to

disposal of it, and several of the minor articles of stores appertaining to the Ordnance Department were removed by that Department, while the remainder consisting of Machinery principally were offered for sale. When this has been disposed of there will be no necessity to retain the present establishment which costs Rs112 per mensem.

The opening balance of Stock in the P.W. Stores on 1st April 1886 was Rs 204.057, and the receipts from all sources during the year amounted to Rs 74990, which, with the opening balance, made a total of Rs 2.79.047. The issues during the year amounted to Rs 67.869 and the balance on the 31st March 1887 was Rs 211.179, or Rs 7122 more

than the opening balance

The Buckingham Canal made use of route was during the year in forwarding P.W. and Railway Stores. No Crane has as yet been erected at the basin, but one of the masonry platforms was widened to admit of a 5 Ton Crane being placed on it. The inconvenience to this Department in loading boats with cases and packages weighing from one to two tons was very great. The Assistant Port Officer, however placed a two ton Pier Crane at the disposal of this Department, whereby much of the difficulty was overcome, and now that the platform is ready for use the two ton Crane will be returned for service on the Pier.

Much work continued

to

be done by the Port Stock Keeper's Department in receiving and despatching stores to both the Bellary Kistna and Cuddapah Nellore State Railways. The latter line used its receiving depôt at Ippagunta pollicing so that all stores hereafter will be sent by Rail to Ranigunta. The Bellary Kistna Railway however opened up a depot at Chebrole where all stores for the Kistna branch will be sent to be forwarded to Guntoor.

During the year 8339 tons of Railway materials and Stores were received from England, and 1307 tons from Rangoon.

There were 43 consignments from England, 19 from Calcutta, 9 from Rangoon,

making in all 71 consignments received and despatched. The value of the stores from England amounted to £78.922-11-9 that from Rangoon Rs 35.974-2-11 and of sundries received from Calcutta the value is not known.

24. P. W. Workshops new forms of accounts were introduced for adoption in the workshops from 1st April 1886, and the administrative accounts of the shops will be submitted to

Government by the Examiner of S. W. Accounts.

Here, as in the Stores Department, Mr. Joyce on assuming charge, took stock of the Workshop stores, and the checking of the whole stock was completed.

The following additions were made to the Workshop's Machinery, by indents on the India office.

2. Stocks with taps and dies to cut Screws
1. Revetting Machine compound lever.
1. Circular saw for cutting bottoms

25. Govt. Brick & Tile manufactory Madras. - In addition to the bricks manufactured for Government public works, 2,97,000 bricks were supplied to the Madras municipality on payment, for the drainage works, and 92,950 bricks for other municipal purposes. 6,21,675 bricks were also supplied to the Town Hall & Madras Christian College -

Six new drying sheds were constructed, and four Clayton's bricks presses were obtained from England. With these machines excellent bricks are being moulded, cheaper than those made by the old hand presses. A flooring tile press for manufacture by the dry process

was received and also a machine for making leaden sashes for stained glass windows.

(26) Govt Lithographic Press.

Revalue Rs 10,000 towards outstanding the year for the Govt. Lithographic Press was Rs 15,529. While the working expenses amounted to Rs 11,553.

27. In the ~~Annual~~ Report for 1885-86, reference was made to the resolution of the Govt to transfer to the municipality the care & maintenance of the bridges ~~within the municipal limits~~ in Madras, which had previously been in charge of the P.W. Dept. The transfer took effect from 1st April 1886. The Govt making an annual grant to the municipality of Rs 3,381, being the average yearly cost of repairing the bridges. As the transfer being effected, it was found that the grant did not include ~~cover~~ the cost of repairs

to the bridges over the Buckingham Canal within municipal limits. These bridges were therefore retained in charge of the P. W. Dept during 1886-87, & their transfer to the municipality was ordered to have effect from 1st April 1887, the maintenance grant being increased by Rs 1062. The Grant Duff & Rev. Board bridges within the Cheapak Park were retained in charge of the Mo. dept, their maintenance being entrusted to the Consy. Architect.

28. Revision of the Madras P. W. Code - The second edition of the Code having become much encumbered with standing orders, the preparation of a third edition was ordered at the end of 1885. The work of revising the text of the Code was begun in January and completed in June 1886; and the third edition was distributed in October and came into force from 1st December 1886. The laborious work of revision was done mainly out of office hours by the members of the Examiners office entrusted with it, and it was thus completed in a comparatively short space of time - The new edition, in many respects, is an improvement on the second edition, while the cost, chiefly

owing to the adoption of inexpensive binding, was very much less.

29. Inspection of Light-houses. The ~~undermentioned~~ at the undermentioned places light-houses were inspected & reported on by the Chief Engineer in January & February 1867:—

Mangalore
Tellicherry
Cannanore
Calicut
Cochin
Quilon
Tuticorin (Hare Island)
Pamban
Negapatam
Madras
Pulicat
Armeghon
Point-Divi
Hope Island
Vakalamudi
Santopilly
Calingapatam

30 - Grant of Courtesy titles to native officers and subordinates of the P.W. Dept. - In September 1886. the Govt of India sanctioned the Grant of the titles of Rai Bahadur, Rao Bahadur, or Khan Bahadur, ex officio to all native gentlemen in the P.W. Dept holding the substantive ranks of Executive Engineer, Assistant Engineers and upper subordinates who attain the rank of Honorary Asst Engrs may receive ex officio the title of Rai Sahib Rao Sahib or Khan Sahib, and will be eligible for the title of Rai Bahadur, Rao Bahadur, or Khan Bahadur, on the recommendation

of the Local Govt. Other
upper subordinates of
higher rank than Overseer
will be eligible for the
title of Rai Sahib, Rao
Sahib, or Khan Sahib
if they have held with
credit for five years
the charge of an important
subdivision, and are
recommended for the
distinction by the
Local Govt.

In accordance
with these orders, the
grant of the following
ex officio courtesy titles
to the undermentioned
native gentlemen was
notified in Oct. 1886.

S. Subbarayachariyar B.C.S., Sen. Dep. 4th Grade - Rai Bahadur
S. Gopala Krishna Aiyar, B.C.S., Asst Dep. 1st Grade - Rai Bahadur
C. Muhammad Yasin Sahib, Hony. Asst Dep. - Khan Sahib
S.A. Subrahmanya Aiyar, B.A., B.C.S., Asst Dep. 2nd Grade, Rai Sahib
T. Subrahmanya Pillai, Hony. Asst Dep. — Rai Sahib

Mr S. Gopala Krishna
Aiyar was subsequently
granted ex officio the higher
courtesy title of Rai Bahadur,
& Mr T. Subrahmanya Pillai
was granted the personal
title of Rai Bahadur
in connection with the
Jubilee honors of 16th
February 1887.

31. Service Books.

Pte orders with respect to the due & correct maintenance of the Service books of public servants appear to have been carefully attended to generally by Officers of the P.W. Dept.

32
~~29~~. Appointment of Consg.
Architect to Govt. - During
the R.T. Christmas incum-
bency of this appointment,
a special & consolidated
rate of salary was attached
to it, but after the
retirement of that Gentleman
the Secy of State for India
sanctioned the continuance
of the appointment as a
permanent measure
on the following con-
ditions: that the appt.
shall be open to an
officer of any rank
below that of Chief
Engineer, and should
the officer be a Suptg.
Engineer, or should he
rise during such
employment to the
rank of Suptg. Engineer
he shall be treated
as a supernumerary

and receive promotion in his turn. On those conditions, Lieut-Col. J. L. L. Morant, R.E., A.D.J. Bt. was gazetted to the permanent appointment on the 16th July 1886, last Monthly afternoon intimation was received of his death in Australia on the 17th June 1886. The other officer of the Madras P.W. Dept was found to possess the special qualifications needed for the work; and on the nomination of the Govt of India, Mr J. W. Brassington, Exr. Engineer 2nd Grade, Rajputana, was appointed Consg. Assistant on six months probation. Mr Brassington assumed charge

charge of the Office on the 23rd November 1886.

33. Departmental Estabt.

At the suggestion of the Finance Committee, the Govt. in the Financial Dept restricted the ~~deficits~~ Provincial share of the cost of ~~the establishments~~ P.W. Estabt to Rs 6,50,000. The grant for public works under Imperial heads of service for the year 1887-78 were at the same time considerably less than those of previous years. In framing the preliminary issue the Provincial Budget for 1887-88, it was found, as a consequence, that the contributions from other funds on account of establishment, amounted to only Rs 13,70,614 against Rs 16,35,424 in the previous year; and the total provision for

for establishment, including the Provincial Contribution, amounted to Rs. 20,20,614 against Rs 24,59,156, the grant for 1886-87. A large reduction of establishment therefore became necessary, and at the end of February 1887 the services of the entire temporary establt. attached to the dept were dispensed with. This temporary establishment had been gradually entertained during several preceding years, to meet the expanding operations of the dept, and at the time of its reduction, consisted of seventeen temporary engineers, almost entirely upper subordinates, and a large

large number of office & inferior servants, the whole costing about three & a quarter lakhs per annum. The reduction was carried out in the midst of the busiest working season & caused much inconvenience to the dept, but to the credit of administrative powers it must be said that it was effected without friction of any kind.

34. Divisional Changes.

The reduced grant for establishment rendered it necessary to close the four Taluk divisions in the beginning of March, and the following changes were ordered at the same time. The Sanjam of Ranibennur division were amalgama

for account purposes, under the designation of the Sangam division. The temporary Central Godavari division was combined with the Western delta division, the temporary Godavari division was amalgamated with the Eastern Kistna division, the Sangam Project division was incorporated into the Nellore division and the temporary Ramnad division was amalgamated with the Madura division. The Godavari Central division was subsequently constituted a permanent division, in lieu of Sangam, and arrangements were being made to reconstitute the Ramnad Estate works into a separate temporary

temporary division. Late in the official year, the Govt of India sanctioned an additional grant of three Lakhs for Tank Restoration Operations, and proposals were under consideration for continuing the Tanks scheme with more economical establishments than had previously been employed —

The other principal Changes which occurred during the year were in August 1886 the closure of the B. Project division in the IV Circle & the C. Project division in the III Circle. & the VI Circle, the Lower Coleroon

and the Convey & Vance
Project divisions could
be ~~re~~ independent divisions,
& the ~~under~~ workers were
merged into the ordinary
divisions.

into a separate
temporary

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Casualties Engineer
Establishment. During
the year, the Department
suffered two severe
losses by death. Lt.
Col. J.L.L. Morant, R.E.
Executive Engr 1st grade, &
Asst Engr 2d class, temporarily
result, died in Australia
on the 17th June 1886
while on leave; and
Mr T. D. Harris, Ex. Engr
1st grade, who had
risen to that rank from
the subordinate grades,
died at Waltair on
the 4th June 1886.

A new road round Mountstuart Hill from Messrs. Oakes and Company's premises to the market was made at a gradient of 1 in 20, and proved a great convenience to the residents. A raised footpath along the road from Charing Cross to the market was also under construction.

16. *Improvements to the South Beach, Madras.*—The extension of the promenade from Elliot's road to St. Thomé, a distance of 1,500 feet, was in progress. This section will complete the promenade from the Napier bridge to St. Thomé, a total distance of 10,666 feet. The extension of the stone dwarf wall along the side between Pycroft's road and the Hindu cemetery was also in progress. The unsightly fishing village to the south of the Presidency College was entirely removed, and the ground levelled; and a new village for the fishermen was constructed to the west of the canal. The many difficulties connected with the removal of the fishermen were successfully overcome by the assistance rendered to the department by Dewan Bahadur R. Raghunatha Row. The municipal sewage farms, adjoining the fishing village and extending to the Hindu cemetery, were taken over and closed for cultivation, and cremation in the Hindu cemetery was stopped at the end of the year.

17. *Tirumal Naick's Palace, Madura.*—The total sanction for the restoration of this building and its adaptation for public offices amounts to Rs. 3,31,985, and the expenditure up to 31st March 1886 was Rs. 2,82,836. The works in progress during 1886-87 were on the undermentioned estimates:—

		Rs.
(*a*)	Completing restoration	1,01,500
(*b*)	Locating the judge's court	13,390
(*c*)	Do. the collectorate	51,009

Of these, the first and second were fully worked out, and work on the third estimate was done to the extent of Rs. ~~22,104~~ 22916. The total outlay on the palace works to the end of 1886-87 was Rs. 3,11,649.

18. *St. Joseph's College Buildings at Negapatam.*—These buildings, formerly the property of the Jesuit Mission, were purchased by the Government in September 1886, for Rs. 30,000, for the accommodation of the undermentioned public offices:—

Head Assistant Collector.
Executive Engineer.
Assistant Superintendent of Police.
District Munsif.
Tahsildar.
Sub Judge.
Sub-Magistrate.

At the close of the year, the offices of the Executive Engineer and the tahsildar were located in the buildings, and estimates were under preparation to meet the requirements of the other offices.

19. *Military Churches at Wellington.*—An estimate, amounting to Rs. 38,161, for constructing a Protestant church at the military station of Wellington, was sanctioned by the Government of India in July 1884, and the work was commenced in the same year. As the work progressed, it was found that the cost had been under-estimated, and a revised estimate, amounting to Rs. 47,810, was finally sanctioned. The building was completed in 1886-87 within the amount of the revised estimate, and divine service was held in it for the first time in March. The church is on a design by the late Lieutenant-Colonel Morant, R.E., and though originally intended to contain 300 sittings, is found to accommodate conveniently 450. The station was previously without a place of public worship, and services were held in a barrack-room.

The construction of a Roman Catholic military church at the same station, to contain 200 sittings, was sanctioned in December 1886. The work is being carried out by the Roman Catholic chaplain from funds supplied by Government, and under the supervision of the Executive Engineer.

20. *New Building for the Breeks' Memorial School, Ootacamund.*—The accommodation in the Collector's office having long been found inadequate for the several departments located in it, it was proposed to provide the additional accommodation required by taking over the existing Breeks' school buildings, which are ill adapted for purposes of the school and in objectionable proximity to the public offices, and converting them into a court for the sub-judge and an office for the registrar. The school committee agreed to the alienation of the buildings on the condition that a new building for the school be provided by Government, and an estimate, amounting to

Rs. 38,180, for a new school-house, on a handsome design, was accordingly sanctioned. A site was selected on Mountstuart, commanding the Coonoor road, and the work was commenced in August 1886. By the end of the year, good progress had been made, the expenditure having been Rs. 21,750.

21. *Adam Memorial Fountain, Ootacamund.*—A sum of Rs. 13,770 having been raised by public subscription for the erection of a memorial at Ootacamund to the late Right Honorable W. P. Adam, Governor of Madras, and the Committee having procured from England, at a cost of £830, a handsome iron fountain, the *fac simile* of one in front of the Town Hall at Leeds, the Government undertook its erection, the construction of a stone basin, and its connection with the Ootacamund water-supply system. The total estimate for the work amounted to Rs. 16,850, the difference between which sum and the amount of subscriptions was contributed by the Government. The fountain was erected before the end of the year, on a site in front of the Collector's office, and is an ornament to the station.

22. *Additions to the Madras College of Engineering.*—To provide the additional accommodation necessary to meet the requirements of the sanctioned scheme for the reorganization of the College, an estimate, amounting to Rs. 90,066, was sanctioned in September 1886. Funds were provided late in the official year, but before its close rapid progress had been made. The new buildings will form an extensive addition to the south end of the College and will be in general keeping with the façade of the old palace.

23 *Public Works Stores.*—Mr. A. Joyce, Executive Engineer, 3rd grade, who was appointed to the charge of the Public Works Stores and Workshops on Mr. O'Connell proceeding on furlough to Europe, assumed charge on the 9th March 1887, and at once entered on taking stock of the stores. The whole of the articles were counted and weighed, thus completing the checking of the entire stock, which was found correct, and corresponded with the ledger balances. Mr. Joyce also examined the machinery and the plant in the custody of the storekeeper of machinery and found them correct. This machinery belongs chiefly to the Ordnance and Paper Stamping Departments. An attempt was made to dispose of it, and several of the minor articles of stores appertaining to the Ordnance Department were removed by that department, while the remainder, consisting principally of machinery, was offered for sale.

When this has been disposed of there will be no necessity to retain the present establishment, which costs Rs. 112 per mensem.

The opening balance of stock in the Public Works Stores on 1st April 1886 was Rs. 2,01,057, and the receipts from all sources during the year amounted to Rs. ~~71,990~~, 59350 which, with the opening balance, made a total of Rs. ~~2,79,047~~. 263407

The issues during the year amounted to Rs. ~~67,869~~, and the balance on the 31st March 1887 was Rs. ~~2,11,179~~, or Rs. ~~7,122~~ more than the opening balance. 2932 55968

207439

The Buckingham canal route was made use of during the year in forwarding Public Works and Railway stores. No crane has as yet been erected at the basin, but one of the masonry platforms was widened to admit of a 5-ton crane being placed on it. The inconvenience to this department in loading boats with cases and packages weighing from one to two tons was very great. The Assistant Port Officer, however placed a 2-ton pier crane at the disposal of this department, whereby much of the difficulty was overcome, and now that the platform is ready for use, the 2-ton crane will be returned for service on the pier.

Much work continued to be done by the Port Storekeeper's Department in receiving and despatching stores to both the Bellary-Kistna and Cuddapah-Nellore State Railways. The latter line closed its receving depôt at Tippaguntapollium, so that all stores hereafter will be sent by rail to Rénigunta. The Bellary-Kistna Railway, however, opened up a depôt at Chebrole, where all stores for the Kistna branch will be sent to be forwarded to Guntúr.

During the year 8,339 tons of railway materials and stores were received from England, and 1,307 tons from Rangoon.

There were 43 consignments from England, 19 from Calcutta, 9 from Rangoon, making in all 71 consignments received and despatched The value of the stores from England amounted to £78,922-0-9, that from Rangoon Rs. 35,974-2-0, and of sundries received from Calcutta the value is not known.

24. *Public Works Workshops.*—New forms of accounts were introduced for adoption in the workshops from 1st April 1886, and the administrative accounts of the shops will be submitted to Government by the Examiner of Public Works Accounts.

Here/ ~~There~~, as in the Stores Department, Mr. Joyce, on assuming charge, took stock of the workshop stores, and the checking of the whole stock was completed.

The following additions were made to the Workshop's machinery, by indents on the India Office:—

2 Stocks with taps and dies to cut screws.
1 Revetting machine compound lever.
1 Circular saw for cutting hot iron.

25. *Government Brick and Tile Manufactory, Madras.*—In addition to the bricks manufactured for Government public works, 2,97,000 bricks were supplied to the Madras Municipality, on payment, for the drainage works, and 92,950 bricks for other municipal purposes; 6,21,675 bricks were also supplied to the Town Hall and Madras Christian College.

Six new drying-sheds were constructed, and four Claytons' brick presses were obtained from England. With these machines excellent bricks are being moulded, cheaper than those made by the old hand-presses. A flooring tile press for manufacture by the dry process was received, and also a machine for making leaden sashes for stained-glass windows.

26. *Government Lithographic Press.*—The value of work turned out during the year by the Government Lithographic Press was Rs. 15,529, while the working expenses amounted to Rs. 11,553.

27. *Transfer of Bridges at Madras to the Municipality.*—In the administration report for 1885-86, reference was made to the resolution of the Government to transfer to the municipality the care and maintenance of the bridges in Madras, which had previously been in charge of the Public Works Department. The transfer took effect from 1st April 1886, the Government making an annual grant to the municipality of Rs. 3,381, being the average yearly cost of repairing the bridges. On the transfer being effected, it was found that the maintenance grant did not include the cost of repairs to the bridges over the Buckingham canal within municipal limits. These bridges were therefore retained in charge of the Public Works Department, during 1886-87, and their transfer to the municipality was ordered to have effect from 1st April 1887, the maintenance grant being increased by Rs. 1,062. The Grant Duff and Revenue Board bridges within the Chepâk Park were retained in charge of the Public Works Department, their maintenance being entrusted to the Consulting Architect.

28. *Revision of the Madras Public Works Code.*—The second edition of the Code having become much encumbered with standing orders, the preparation of a third edition was ordered at the end of 1885. The work of revising the text of the Code was begun in January and completed in June 1886; and the third edition was distributed in October and came into force from 1st December 1886. The laborious work of revision was done, mainly out of office hours, by the members of the Examiner's office entrusted with it, and it was thus completed in a comparatively short space of time. The new edition, in many respects, is an improvement on the second edition, while the cost, chiefly owing to the adoption of inexpensive binding, was very much less.

29. *Inspection of Light-houses.*—The light-houses at the undermentioned places were inspected and reported on by the Chief Engineer in January and February 1887:—

Mangalore.	Madras.
Tellicherry.	Pulicat.
Cannanore.	Armeghon.
Calicut.	Point Divi.
Cochin.	Hope Island.
Muttum.	Vakalapudi.
Tuticorin (Hare Island).	Santopilly.
Pamban.	Calingapatam.
Negapatam.	

30. *Grant of Courtesy Titles to Native Officers and Subordinates of the Public Works Department.*—In September 1886, the Government of India sanctioned the grant of the title of Rai Bahadur, Rao Bahadur, or Khan Bahadur *ex officio*, to all native gentlemen in the Public Works Department holding the substantive rank of Executive Engineer. Assistant Engineers and Upper Subordinates who attain the rank of Honorary Assistant Engineer may receive, *ex officio*, the title of Rai Sahib, Rao Sahib or Khan Sahib, and will be eligible for the title of Rai Bahadur, Rao Bahadur, or Khan Bahadur on the recommendation of the Local Government. Other Upper Subordinates of higher rank than overseer will be eligible for the title of Rai Sahib, Rao Sahib, or Khan Sahib, if they have held with credit for five years the charge of an important sub-division and are recommended for the distinction by the Local Government.

In accordance with these orders, the grant of the following *ex officio* courtesy titles to the undermentioned native gentlemen was notified in October 1886 :—

S. Subharayachariyar, B.C.E., Executive Engineer, 4th Grade, Rai Bahadur.

S. Gopala Krishna Aiyar, B.C.E., Assistant Engineer, 1st Grade, Rai ~~Bahadur~~ Sahib.

C. Muhammad Qasim Sahib, Honorary Assistant Engineer, Khan Sahib.

S. A. Subrahmanya Aiyar, B.A., B.C.E., Assistant Engineer, 3rd Grade, Rai Sahib.

T. Subrahmanya Pillai, Honorary Assistant Engineer, Rai Sahib.

Mr. S. Gopala Krishna Aiyar was subsequently granted, *ex officio*, the higher courtesy title of Rai Bahadur, and Mr. T. Subrahmanya Pillai was granted the personal title of Rai Bahadur in connection with the Jubilee honors of 16th February 1887.

31. *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 officers of the Public Works Department.

32. *Appointment of Consulting Architect to Government.*—During Mr. R. F. Chisholm's incumbency of this appointment, a special and consolidated rate of salary was attached to it, but after the retirement of that gentlemen, the Secretary of State for India sanctioned the continuance of the appointment as a permanent measure on the following conditions: that the appointment shall be open to an officer of any rank below that of Chief Engineer, and, should the officer be a Superintending Engineer, or should he rise during such employment to the rank of Superintending Engineer, he shall be treated as a supernumerary and receive promotion in his turn. On those conditions, Lieutenant-Colonel J. L. L. Morant, R.E., A.R.I., B.A., was gazetted to the permanent appointment on the 16th July 1886, but shortly afterwards intimation was received of his death in Australia on the 17th June 1886. No other officer of the Madras Public Works Department was found to possess the special qualifications needed for the post; and, on the nomination of the Government of India, Mr. J. W. Brassington, Executive Engineer, 2nd Grade, Rajputana, was appointed Consulting Architect on six months probation. Mr. Brassington assumed charge of the office on the 23rd November 1886.

33. *Departmental Establishment.*—At the suggestion of the Finance Committee, the Government, in the Financial Department, restricted the Provincial share of the cost of Public Works establishment to Rs. 6,50,000. The grants for public works under Imperial heads of service for the year 1887-88 were, at the same time, considerably less than those of previous years. In framing the preliminary issue of the Provincial budget for 1887-88, it was found, as a consequence, that the contributions from other funds on account of establishment, amounted to only Rs. 13,70,614, against Rs. 16,35,424 in the previous year; and the total provision for establishment including the Provincial contribution, amounted to Rs 20,20,614, against Rs. 24,59,156, the grant for 1886-87. A large reduction of establishment therefore became necessary, and, at the end of February 1887, the services of the entire temporary establishment attached to the department were dispensed with. This temporary establishment had been gradually entertained during several preceding years to meet the expanding operations of the department, and, at the time of its reduction, consisted of seventeen temporary engineers, about eighty upper subordinates, and a large number of office and inferior servants, the whole costing about three and a quarter lakhs per annum. The reduction was carried out in the midst of the best working season and caused much inconvenience to the department, but to the credit of administrative officers it may be said that it was effected without friction of any kind.

34. *Divisional Changes.*—The reduced grant for establishment rendered it necessary to close the four Tank divisions in the beginning of March, and the following changes were ordered at the same time. The Ganjam and Rushikulya divisions were amalgamated, for account purposes, under the designation of the Ganjam division; the temporary Central Godávari division was combined with the Western Delta division; the temporary Gudiváda division was amalgamated with the Eastern Kistna division; the Sangam Project division was incorporated into the Nellore division, and the temporary Ramnad division was amalgamated with the Madura division. The Godávari Central division was subsequently constituted a permanent division, in lieu of Sangam, and arrangements were being made to reconstitute the Ramnad estate works into a separate temporary division. Late in the official year, the Government of India sanctioned an additional grant of three lakhs for tank restoration operations, and proposals were under consideration for continuing the tank scheme with more economical establishments than had previously been employed.

The other divisional changes which occurred during the year were the closure, in August 1886, of the "B" Project division, in the IV Circle, and the "C" Project division in the III Circle. In the VI Circle, the Lower Coleroon and the Cauvery and Vennar Project divisions ceased to be independent divisions, and the works were merged into the ordinary divisions.

35. *Casualties, Engineer Establishment.*—During the year, the department suffered two severe losses by death. Lieutenant-Colonel J. L. L. Morant, R.E., Executive Engineer, 1st grade, and Superintending Engineer, 2nd class, temporary rank, died in Australia on the 17th June 1886 while on leave; and Mr. T. D. Harris, Executive Engineer, 1st grade, who had risen to that rank from the subordinate grades, died at Waltair on the 4th June 1886.

II.—PROGRESS OF WORKS.

I.—IMPERIAL—MILITARY WORKS.

. **Ganjam.**—A sum of Rs. ~~1,358~~ 1397 was spent in repairing military hospital, cholera and small-pox shed, and the floor of quarter guard at Berhampore, and on account of house-rent to military medical subordinates at Berhampore and Chicacole.

. **Vizagapatam.**—A sum of Rs. 2,573 was expended on the maintenance and repair of all military buildings and roads in the cantonment of Vizianagrum.

. **Godavari (East.)**—Repairs to the military buildings at Sámalkót were carried out at an outlay of Rs. 692.

. **Godavari (West.)**—~~A sum of Rs. 80 was disbursed on account of house-rent to the Civil Apothecary.~~

. **Bellary.**—The apothecaries' quarters (double) at Bellary were completed, with the exception of painting the doors and windows. The estimate was exceeded owing to the reconstruction of old foundations and basement; to the provision of sill slabs over doors and windows, not provided for in the original estimates; flooring with slabs; and substitution of new doors and windows for old ones rejected. The outlay amounted to Rs. 6,262 against the estimate of Rs. 6,222. A revised estimate of Rs. 7,856 was ~~since~~ subsequently sanctioned ~~in G.O., No. 1250 W., dated 9th May 1887~~.

. Stores and timber, to the value of Rs. 1,084, were collected for the collar-maker and wheeler's shop at Bellary; estimate Rs. 5,663. The contractor, who undertook to spend Rs. 3,000 on the work before the end of the official year, failed to do so, owing to the allotment having been given late in the year.

. The following minor works were carried out :—

(1) The drainage system of the European Infantry barracks was improved at a cost of Rs. ~~1,721~~ 1703

(2) The coffee-shop of the Royal Artillery was re-roofed with Mangalore tiles at a cost of Rs. 948, and a temporary forge and shoeing shed erected for the Royal Artillery at a cost of Rs. 345.

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

(1) The bakery at Wellington was nearly completed; estimate Rs. 35,850, expenditure Rs. ~~30,074~~. 30132

(2) Two lying-in wards were added to the station hospital at Wellington at a cost of Rs. 2,909; estimate Rs. 3,036.

(3) Quarters for a barrack sergeant at Wellington were commenced; estimate Rs. 7,348, expenditure Rs. 3,213.

(4) The Lawrence Asylum buildings were improved at a cost of Rs. 4,595; estimate Rs. 5,790.

9246 (5) Repairs were executed to the Lawrence Asylum and the military buildings at a cost of Rs. ~~2,380~~ and Rs. 7,040, respectively.

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

(1) Constructing two cisterns to hold water for fire-engines; fixing a weigh-bridge and constructing a shed over it in the stud lines; and improving the sepoy's lines at the Remount Depôt, Matigiri. The estimates amounted to Rs. 1,330, 172 and 230, respectively.

(2) Improving the rest-house at Pódanúr; estimate Rs. 1,190.

. Repairs to the military buildings at the Remount Depôt at Matigiri and to the rest-houses at Pódanúr and Mettupálaiyam were carried out at an outlay of Rs. ~~5,660~~. 5606

. **West Coast.**—The entire project of accommodating troops at Malapuram was ~~fully~~ completed according to the revised estimates. The buildings finished and occupied during the year were—

1. Block No. 2 with out-houses.
2. Ward for contagious diseases.
3. All the covered passages.
4. The drains.
5. Converting the wood godown into a bakery.
6. Cattle and sheep pen.

. The allotment for several works in connection with the barracks was Rs. 8,315, of which Rs. 7,691 were expended, bringing the total expenditure at the end of the year to Rs. 1,22,672 against the estimate of Rs. ~~1,80,102~~. 180212

. The following works were completed or in progress :—

(1) Improvements to the elephant shed at Malapuram were in progress; estimate Rs. 2,060, expenditure Rs. 810.

(2) A store-room for the Madras Infantry regiment stationed at Quilon was almost completed; estimate Rs. 9,334 against an outlay of Rs. 6,653.

(3) The bomb-proof roof of the military magazine at Quilon was covered with an additional tiled roof to prevent the leakage frequently complained of. The lightning conductor of the magazine was ~~thoroughly~~ renewed. The aggregate cost of the two works amounted to Rs. ~~3,210~~ against an estimate of Rs. 3,880. 3,153

(4) The old jailor's quarters at Calicut were improved; estimate Rs. 1,200, outlay Rs. 1,076.

(5) The family quarters of No. 2 block of West Hill barracks at Calicut were adapted for quarters for the Commissariat Sergeant and store-room; estimate Rs. 650, outlay Rs. 599.

647 (6) The lightning conductors on the magazine at West Hill barracks were renewed at an outlay of Rs. ~~500~~ against an estimate of Rs. 730.

(7) The supplemental estimate of Rs. 1,170 for converting the old cells in the Cannanore Fort into a double magazine and providing shelves and racks, &c., was worked out, bringing the total outlay to Rs. 3,233 against the estimate of Rs. 3,590. The expenditure under repairs, military, amounted to Rs. 32,307 against an allotment of Rs. 33,497.

. **North Arcot.**—No major or minor works were carried out during the year.

. A sum of Rs. 2,977 was spent under repairs, including the usual annual contribution of Rs. 1,000 paid to the municipality on account of the maintenance of Vellore cantonment roads.

. **South Arcot.**—Rupees 425 were spent out of a grant of Rs. 444 on account of compensation for quarters for three military apprentice overseers and rent of quarters for the Sergeant Instructor of the South Indian Railway Volunteer Rifle Corps.

. **Chingleput.**—The following works in connection with the new Royal Artillery barracks at the Mount were completed :—

(*a*) Barrack, east block.
(*b*) Barrack, west block.
(*c*) Three wash-houses.
(*d*) Three kitchens.
(*e*) Wheeler shop.
(*f*) Store-room.
(*g*) Latrine.

. The construction of a recreation-room, coffee-shop, plunge-bath, and drains at the barracks of the Artillery at the Mount was completed. The total outlay was Rs. 1,37,694 against an estimate of Rs. 1,46,910.

. Granite head and heel stones were provided and three gearing rooms were constructed in the stables of the Royal Artillery at St. Thomas' Mount. The total outlay was Rs. 22,914 against an estimate of Rs. ~~23,389~~. 21300

. The construction of a coffee-shop with kitchen for the upper storey barracks, St. Thomas' Mount, was in progress. Rupees 2,165 were expended on an estimate of Rs. 6,690.

. Seven minor new works were completed at a cost of Rs. 1,232. 28851

. The expenditure on minor new works and repairs was Rs. ~~27,620~~, and the total expenditure under repairs, including barrack-master's petty repairs, compensation for quarters, &c., was Rs. 36,236.

. The principal buildings repaired were—

(1) The south barracks at the Mount; estimate Rs. 3,020, outlay Rs. 2,817.

(2) Garrison store-room in the staff office at Poonamallee; estimate Rs. 540, outlay Rs. 499.

(3) Station hospital and out-houses at Poonamallee; estimate Rs. 860, outlay Rs. 782.

(4) Three blocks of the west barracks and its out-houses at Mount; estimate Rs. 1,360, outlay Rs. 1,355.

(5) Station hospital and its out-houses at Mount; estimate Rs. 910, outlay Rs. 882.

(6) Roof of Sergeant-Major's quarters at Poonamallee; estimate Rs. 790, outlay Rs. 742.

(7) Renewing roof of stables and horse lines of 2/pt Battery, Royal Artillery, Mount. Estimate Rs 6,950 and outlay Rs 5908

. **Presidency and Bangalore.**—The following works were completed :—

(1) The conversion of A block family quarters, Fort St. George, into single men's barracks; estimate Rs. 15,877, outlay Rs. 5,955.

(2) Additional work to the coast batteries and the maintenance of the casuarina plantations on the beach for the purpose of screening the coast batteries, at a cost of Rs. 1,965; total outlay Rs. 8,184, estimate Rs. 8,240.

(3) Guard-rooms, kitchens and latrines for the coast batteries; estimate Rs. 6,025, outlay Rs. ~~5,870~~. 5843

(4) Improvements to the armament, Fort St. George; estimate Rs. 42,035, outlay Rs. ~~37,135~~. 37597

(5) The reconstruction of a wheel-wright shop at the Gun Carriage Factory; estimate Rs. 7,370, outlay, Rs. ~~6,712~~. 6697

(6) Improvements to the wash-houses at the parade barracks, Bangalore; estimate Rs. 12,500; outlay Rs. 10,720.

(7) Additions to the military prison at Agram; estimate Rs. 8,325, outlay Rs 7,478.

(8) Cavalry stables at Agram for 66 additional horses; estimate Rs. 5,930, outlay Rs. 5,560.

. The following works were in progress:—

(1) Conversion of racket-court in Fort St. George into a covered gymnasium; estimate Rs. 11,890, outlay Rs. ~~2,600~~. 2320

(2) Improving the water-supply of Fort St. George; estimate Rs. 6,445, outlay Rs. ~~6,298~~. 6248

(3) Public buildings for a regiment of Native Infantry on the Arab lines plateau at Bangalore; estimate Rs. 21,636, outlay Rs. 15,188.

. Twenty-one minor new works at the Presidency and thirty-six at Bangalore were commenced and completed during the year at a cost of Rs. ~~10,404~~. 10432

. Two hundred and ninety-two repair works at the Presidency and two hundred and five at Bangalore were carried out during the year.

. Payments, amounting to Rs. 19,297, were made to the Madras Municipality on account of house, water, and light taxes on Government military buildings outside Fort St. George, and Rs. 6,000 on account of maintenance and repairs to the esplanade and Fort beach roads.

. At Bangalore Rs. 1,200 and Rs. 6,300 were paid to the Cantonment Municipality for the conservancy of the main sewer and the maintenance of the military roads.

. The total outlay under repairs was Rs. ~~1,21,497~~ 1,21,486 at the Presidency and Rs. ~~49,051~~ 48,785 at Bangalore.

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

(1) Repairing and lime-washing walls of European Infantry barracks, Fort St. George; estimate Rs. 3,490, outlay Rs. ~~1,409~~. 1389

(2) Re-roofing mess-house, Fort St. George; estimate Rs. 6,400, outlay Rs. ~~4,081~~. 4107

(3) Repairing and lime-washing public quarters at the Gun Powder Factory; estimate Rs. 3,270, outlay Rs. 811.

(4) Thorough repairs to the Government granary on the beach; estimate Rs. 8,800, outlay Rs. ~~6,897~~. 6802

(5) General repairs and covering the floor of the Army Clothing Department office with asphalte; estimate Rs. 2,670, outlay Rs. ~~2,327~~. 2,313

(6) Supplying gravel to the parade-ground and sepoys' court-yards of the Native Infantry lines, Perambúr; estimate Rs. 6,490, outlay Rs. 6,308.

. The following repair works were carried out in Bangalore:—

(1) Painting doors and windows of Cavalry Agram barracks; estimate Rs. 3,975, outlay Rs. 3,918.

(2) Painting doors and windows of Royal Artillery barracks; estimate Rs. 2,487, outlay Rs. 2,378.

(3) Renewing filtering materials of the cistern at the Ulsoor Rock; estimate Rs. 1,783, outlay Rs. 1,742.

(4) Renewing filtering materials of the cistern at Dhobie's Wells; estimate Rs. 1,577, outlay Rs. 1,516.

(5) Painting doors and windows of Ulsoor Royal Horse Artillery barracks; estimate Rs. 1,782, outlay Rs. 1,746.

. **Trichinopoly.**—A sum of Rs. ~~6,162~~ 4532 was expended in repairing the military buildings and in paying compensation for quarters in the other divisions in the circle.

. The construction of public buildings for a regiment of Native Infantry was continued, a magazine and cells having been under progress; the outlay was Rs. ~~1,756~~ 1753 against a grant of Rs. 3,593.

. The construction of stone drains for the new lines mentioned above, for which a grant of Rs. 1,000 was given, could not be commenced, the estimate not having been sanctioned. The construction of these drains has since been ordered to be deferred.

II.—IMPERIAL—CIVIL WORKS.

. **Vizagapatam.**—Repairs to the post offices at Vizagapatam, Narsapatnam and Koraput were completed.

. The construction of a post office building at Sálúr, for which an estimate of Rs. 2,000 was sanctioned, was in progress. The outlay amounted to Rs. ~~598~~. 311

. **Godavari (East).**—A sum of Rs. 735 (of which Rs. 306 ~~was~~ were spent in the previous year) was expended on improvements to the post office building at Bhadráchalam against an estimate of Rs. 830. The work was fully completed.

. An estimate, amounting to Rs. 34,135, was sanctioned for the construction of quarters for signallers to the Telegraph department at Cocanada. The work was completed at a total cost of Rs. ~~39,449~~ 39,554, the expenditure being Rs. ~~5,529~~. 5,634 during the year

. Improvements to the telegraph office at Cocanada were carried out at a total cost of Rs. ~~3,696~~ 3,821, ~~the expenditure amounting to Rs. 758~~ against an estimate of Rs. 4,000.

. **Kistna (East).**—A well in the compound of the Bezváda post office was constructed during the year. The ~~estimate~~ amounted to Rs. ~~280~~ 280 against an ~~outlay~~ of Rs. ~~307~~. After three-fourths of the work had been completed the estimate required revision, owing to clay having been met with. The repairs to the telegraph offices at Bezváda and Masulipatam were executed.

. **Kistna (West).**—Rupees 804 were expended in completing the Duggirala post office; estimate Rs. 900, allotment Rs. 757. The telegraph office at Guntúr was repaired.

. **Nellore.**—A sum of Rs. 842 was spent on the construction of quarters for the postmaster at Gúdúr; the estimate was Rs. 1,260 against a grant of Rs. 1,232. The work was almost completed.

. The post offices at Kávali and Kristnapatam were repaired during the year, but the repairs of that at Gúdúr could not be commenced till the quarters for the postmaster were finished.

. **Bellary.**—The walls of the post office at Anantapur were raised to a height of 11 feet, and out-houses nearly finished; but the work was suspended pending sanction to the construction of a telegraph office-room, which it was proposed to attach to the post office. The expenditure amounted to Rs. 1,922 against the estimate of Rs. 4,051.

. **Coimbatore.**—Repairs to five post offices were carried out during the year at an outlay of Rs. 762.

. **Nilgiris.**—The Ootacamund telegraph office was repaired at a cost of Rs. 564, and the Wellington post office at an outlay of Rs. 158.

. **West Coast.**—Certain vacant buildings in the Fort at Tellicherry (late district jail) were converted into a post office and postmaster's quarters. The estimate amounted to Rs. 1,810 and the expenditure to Rs. 1,788. The work was completed. Rupees 637 were spent in repairs to eight postal buildings.

. **North Arcot.**—A sum of Rs. 76 was spent on the construction of a well for the Punganúr post office. 41

. Rupees 350 were spent on repairs to postal buildings and Rs. ~~42~~ on repairs to telegraph buildings.

. **South Arcot.**—A sum of Rs. 148 was expended on repairs to postal buildings.

. **Presidency and Bangalore.**—The combined post and telegraph offices were completed by the conversion of the Commissariat mule stables on the foreshore into stables for the post office ~~mails~~ and the construction of quarters for the sergeant in charge of the mails. The total expenditure on the combined offices amounted to Rs. 6,89,931 ~~and~~ the estimate ~~to~~ Rs. 6,92,094.

. Under minor works an estimate of Rs. 2,790 was sanctioned for additions to the lightning conductors of the post and telegraph office to bring them into accordance with the new code of regulations, and other minor additions required by the departmental officers.

. The following repairs were carried out :—

(1) Repairing and white-washing walls of the Mylapore post and telegraph offices ; estimate Rs. 155, outlay Rs. 152.

(2) Repairing and white-washing the Shoolay post and telegraph offices, Bangalore ; estimate Rs. 186, outlay Rs. 172.

. **Trichinopoly.**—Slight improvements were carried out to the post office at Teppakulam and the sub-post office at Trichinopoly at a cost of Rs. 45 and Rs. 30, respectively.

. **Tanjore.**—Out of an allotment of Rs. 1,292, Rs. 1,079 were utilized. The chief item on which short outlay was incurred was the extension of Kumbakónam post office. The work was completed.

. **Madura.**—The construction of a post office at Butlagundu was proceeded with. Out of the grant of Rs. 795, Rs. ~~320~~ were spent and the work was nearly completed.

. An outlay of Rs. 109 was incurred in repairing the post offices at Kovilur and Ammayanáyakanúr.

. **Ramnad.**—The grant of Rs. 751 was fully spent in completing the additions to the post office building at Ramnad.

. **Tinnevelly.**—An expenditure of Rs. 437 was incurred on repairing the post offices at Palamcottah and Srívaikuntham. The former was completed and the latter is in progress.

III.—PROVINCIAL—CIVIL BUILDINGS.

. **Ganjam.**—A building, for the residence and office of the Executive Engineer at Chicacole, was purchased for a sum of Rs. 1,250, and thoroughly repaired ; estimate Rs. 3,440, outlay Rs. ~~3,747~~. 3,606

. **Vizagapatam.**—The construction of a residence for the Assistant Superintendent of Police at Jeypore was completed ; estimate Rs. 15,350, outlay Rs. ~~15,025~~. 15068

. An expenditure of Rs. ~~9,060~~ 9017 was incurred in connection with the provision of additional accommodation to the huzur treasury at Vizagapatam against an estimate of Rs. 9,360. The work was completed and the building handed over to the Revenue Department.

. The following works were in progress :—

(1) A police station-house at Komarada ; estimate Rs. 1,520, outlay Rs. 426.

(2) Additions and alterations to the deputy tahsildar's office at Pálkonda and the construction of a police station-house in its compound ; estimate Rs. 4,920, outlay Rs. 1,876.

(3) Police station-house at Koraput ; estimate Rs. 3,895, outlay Rs. 2,079.

(4) Additions to the deputy tahsildar's office at Bimlipatam ; estimate Rs. 1,040, outlay Rs. 947.

(5) Improvements to the district court-house at Vizagapatam ; estimate Rs. 1,861, outlay Rs. 2,231. The Executive Engineer stated that it was found necessary to do more work than was estimated for : hence the excess.

. About Rs. 24,000 were reserved to meet the cost of the iron bridges on the Potinghi ghât road ordered from and to be paid in England, but no notice has been received that this amount has been utilized.

. Under Repairs a short outlay of Rs. 1,000 was due chiefly to a saving in repairs to warders' lines in the Lunatic Asylum, Waltair, it having been decided not to put teak in the roofs of these huts.

. **Godavari (East).**—The following works were completed or in progress :—

(1) Constructing a district munsif's court-house at Peddapuram ; estimate Rs. 10,300, outlay Rs. ~~11,686~~. 11,847

(2) Sub-magistrate's cutcherry at Pithápuram ; estimate Rs. 8,983, outlay Rs. ~~10,045~~. 9,576

(3) Water-supply and improvements to the existing drainage of the central jail at Rajahmundry ; estimate Rs. 33,030, outlay Rs. ~~30,599~~. 30,748

(4) Constructing registrar's office at Cocanada ; estimate Rs. 4,700, outlay Rs. ~~4,573~~. 4,598

(5) Constructing a sub-magistrate's cutcherry at Tuni ; estimate Rs. 9,436, outlay Rs. ~~5,709~~. 7,258

(6) Materials for the construction of a dispensary at Bhadráchalam were being collected ; estimate Rs. 4,246, outlay Rs. 839.

(7) Constructing a residence at Dowlaishweram for the Superintending Engineer ; estimate Rs. 22,400, outlay Rs. 21,697.

(8) Constructing a residence for the Executive Engineer at Dowlaishweram ; estimate Rs. 12,500, outlay Rs. ~~8,009~~. 9,114 Work in progress.

(9) Improvements to the sea-customs buildings at Cocanada ; estimate Rs. 4,310, outlay Rs. 4,820.

(10) Constructing a sub-registrar's office at Pithápuram ; estimate Rs. 2,300, outlay Rs. 2,315.

(11) Constructing quarters for the hospital assistant attached to the Public Works Department dispensary at Dowlaishweram ; estimate Rs. 605, outlay Rs. 540.

(12) Extension to the Provincial College, Rajahmundry ; estimate Rs. 1,620, outlay Rs. 1,526.

(13) Constructing a second-class station-house at Bhadráchalam ; estimate Rs. 1,826, outlay Rs. 1,769.

. A sum of Rs. 2,000 was anticipated to be utilized for repairs to the Collector's cutcherry at Cocanada and for other buildings, but the estimates for these works did not come in, as they should have, in time ; hence the short outlay.

. **Godavari (West).**—A sub-registrar's office at Pentapad was completed ; estimate Rs. 2,710, outlay Rs. 2,679.

. The following works were in progress :—

(1) Sub-registrar's office at Tanuku ; estimate Rs. 3,090, outlay Rs. ~~163~~. 268

(2) Taluk cutcherry at Tanuku ; estimate Rs. 21,420, outlay Rs. ~~19,770~~. 20,458

(3) Taluk cutcherry at Bhímavaram ; estimate Rs. 22,650, outlay Rs. ~~21,701~~. 22,299

. **Godavari (Central).**—The construction of a sub-registrar's office at Razole was in progress ; estimate Rs. 2,750, expenditure Rs. ~~2,196~~. 2,205

. **Kistna Eastern Division.**—The construction of a residence and office for the Superintending Engineer was completed, with the exception of the latrines ; estimate Rs. 26,775, expenditure Rs. 27,961. Out of an allotment of Rs. 1,000 for raising the compound round the Superintending Engineer's residence, Rs. 401 were spent.

. An allotment of Rs. 1,170 was granted for the addition of a room to the new treasury in the Gudivada taluk office. Nothing was spent during the year owing to the late receipt of the allotment.

. A sum of Rs. 800 was allotted for the construction of head constables' and constables' huts at Bezvada. Rs. 408 ~~was~~ were spent in collecting materials and the work had then to be stopped owing to the refusal of the Church Mission Society to give up the land in their school compound, where it was proposed to build the huts.

. Repairs to the following were completed :—

(1) The Collector's house.
(2) St. Mary's Church.
(3) Eastern division office.
(4) Northern sub-division office.

. **Kistna Western Division.**—Trees were planted in the compound of the division office and a sum of Rs. 83 spent on their maintenance, against a grant of Rs. 115.

. Slight repairs to the division office at Duggirala and the jail buildings at Guntúr were carried out.

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

(1) Sub-registrar's office at Gúdúr.
(2) Police huts at Kandukúr.
(3) Extension of the sawyers' shed, Nellore workshops.

The sub-registrar's office at Addanki was in progress.

. Under Repairs the following buildings were attended to :—

(1) Hill bungalow at Ongole.
(2) Sub-Collector's bungalow at Ongole.
(3) Police Assistant Superintendent's bungalow at Ongole.
(4) Kodavulur bungalow.
(5) Collector's bungalow at Nellore.
(6) Taluk cutcherry and sub-jail at Kandukúr.
(7) Police station-house at Náyudupet.
(8) Deputy tahsildar's cutcherry and sub-jail at Venkatagiri.
(9) Taluk cutcherry at Atmakúr.
(10) District jail, Nellore.

. **Bellary.**—The second-class taluk office at Siruguppa was completed during the year; but final payment was not made owing to the delay on the contractor's part in rectifying defects in the roof, which caused the measurements to be postponed ~~until too late~~. The expenditure amounted to Rs. ~~12,771~~ 12,704, against the estimate of Rs. 12,680.

. The Collector's office at Anantapur was completed with the exception of a stair case to the upper story, parapets, second coat of plaster, and wood oiling, fitting doors and ventilators, laying slabs to upper verandah, and substituting iron railing for masonry parapet walls. The progress of the work was not quite satisfactory owing to the contractor's failure to make proper arrangements. The expenditure on the work amounted to Rs. 49,902, against the estimate of Rs. 55,000.

. The Head Assistant Collector's office at Penukonda was completed and handed over. The expenditure amounted to Rs. 16,091, against the estimate of Rs. 16,682.

. The second-class taluk office at Bukkapatnam was completed and occupied during the year. The expenditure amounted to Rs. 12,777, against the estimate of Rs. 12,200.

. The old structure in the Collector's residence at Anantapur was removed; but nothing more could be done as no contractor came forward to take up the work, and it was not possible to arrange for the execution of the work departmentally within the short time left to close the official year. The expenditure on the work amounted to Rs. 15,997, against the estimate of Rs. 28,190.

. Improvements to the Collector's office at Bellary were ~~carried out~~ in progress. The walls of the rooms in east and west wings were completed to a height of 8 feet above basement level; and door and window frames were fixed. The expenditure amounted to Rs. 8,518, against the estimate of Rs. 47,540.

. The undermentioned minor new works were carried out :—

(1) Enlarging the Collector's printing office at Bellary; estimate Rs. 1,745; outlay Rs. 1,719;
(2) A police hospital at Hospet at a cost of Rs. 653;
(3) A sub-registrar's office at Hadgally for Rs. 2,353;
(4) A sub registrar's office at Hospet at an outlay of Rs. 2,167;
(5) The civil cemetery at Bellary was provided with a gateway and robing-room at a cost of Rs. 430;
(6) Out-houses for the Head Assistant Collector's bungalow at a cost of Rs. 460; and
(7) A strong-room in the taluk office at Kúdligi at a cost of Rs. 603.

. **Cuddapah.**—The construction of a taluk office at Váyalpád was in fair progress. The expenditure amounted to Rs. 9,910, against the estimate of Rs. 25,700.

. Work was in progress on the Collector's office at Cuddapah. The foundation and basement ~~to~~ the printing office were finished, and the superstructure was in progress. The foundation ~~to~~ the main buildings was nearly completed; estimate Rs. 1,43,741, expenditure Rs. ~~22,603~~ 37,695.

. Of the sanctioned additions and alterations to the district jail at Cuddapah, the female ward was almost completed and the male ward No. 1 completed, except flooring and painting. The expenditure amounted to Rs. 14,741, against the estimate of Rs. 31,900.

. The number of works below Rs. 2,500 that were carried out during the year was fifteen, the outlay being Rs. 6,051.

. **Kurnool.**—The taluk office at Nandyál was in slow progress owing to difficulty in procuring labor on account of extensive railway works. The expenditure amounted to Rs. 15,662, against the estimate of Rs. 34,676.

. The sub-divisional officer's quarters at Cumbum were completed on the revised estimate of Rs. 4,794, the expenditure amounting to Rs. 4,770.

. **Nilgiris.**—A sum of Rs. 3,866 was spent in providing stone steps to the terraces, and guttering to the roof with masonry drains at Government House, Ootacamund.

. The Protestant church at Wellington was completed during the year within the amount of the revised estimate (Rs. 47,810); the outlay for the year amounted to Rs. 9,574.

. A Bench Magistrates' court at Kótagiri was commenced and nearly completed; estimate Rs. 8,060, expenditure Rs. 5,442.

. Of the undermentioned works, the first five were completed, the others were in progress :—

(1) Construction of an exercise yard for European convicts in the Ootacamund jail; outlay Rs. 4,472, estimate Rs. 5,790.
(2) The conversion of Rowe's bungalow into a police station, the outlay for the year being Rs. ~~5,118~~ 5,168. The total expenditure amounted to Rs. ~~9,186~~ 9,184, against an estimate of Rs. 9,170.
(3) Improvements to the Executive Engineer's office at Ootacamund.
(4) Provision of drains to the police lines at Ootacamund and to the Coonoor cemetery.
(5) Repairs to Government House, on which a sum of Rs. 9,177 was spent.
(6) The new buildings for Breeks' Memorial School were in progress; estimate Rs. 38,180, outlay Rs. ~~20,149~~ 21,750.
(7) The construction of a Roman Catholic church at Wellington; estimate Rs. 30,526, expenditure ~~up to date~~ Rs. 7,000.
(8) Construction of a new police station at Naduvatam.

. Four minor works were carried out during the year and the buildings on Mountstuart at Ootacamund were repaired at a cost of Rs. 4,011.

. **Coimbatore.**—A new room for the huzur treasury at Salem was constructed at a cost of Rs. 2,876.

. The following works were in progress :—

(1) Alterations and additions to the quarters of the Superintendent, Central Jail, Salem; estimate Rs. 3,600, outlay Rs. 2,604.
(2) Construction of quarters for the deputy jailor attached to the Central Jail, Salem; estimate Rs. 3,660, outlay ~~up to date~~ Rs. 2,852.
(3) Reconstruction of a portion of the district munsif's court at Námakal; estimate Rs. 3,595, outlay ~~up to date~~ Rs. 2,514.
(4) The purchase and improvement of the Police Assistant Superintendent's residence at Tirupatúr; estimate Rs. 4,768, outlay ~~up to date~~ Rs. 4,673.
(5) The construction of a close prison at Coimbatore; estimate Rs. 19,582, expenditure of the year Rs. 1,534.
(6) Improvements to the central jail at Coimbatore; estimate Rs. 5,745, expenditure ~~up to date~~ Rs. 4,474.

. Five minor works were undertaken and fully completed during the year under report at an outlay of Rs. 1,892.

. Thirty-five repair works were carried out during the year at a cost of Rs. 3,482.

. **West Coast.**—The district munsif's court and the record-room at Calicut, which remained incomplete at the end of the previous year, were finished, and with these buildings the whole project of the law courts at Calicut as originally designed was completed at a cost of Rs. ~~90,433~~, against an estimate of Rs. ~~1,06,706~~. The buildings were handed over to the Judicial Department.

. Improvements to the Government Church at Cochin, which were commenced in the previous year but stopped pending ~~formal~~ sanction to the estimate, were resumed. Rs. ~~14,610~~ (which includes an outlay of Rs. 5,519 incurred in the previous year) were spent, against an estimate of Rs. 20,680.

. Satisfactory progress was made with the new public offices at Ponáni. The year's allotment, Rs. 20,000, was fully expended. The total expenditure up to the end of the year amounted to Rs. 50,784, against the estimate of Rs. 74,521.

. The following works were in progress :—

(1) A residence for the Assistant Superintendent of Police at Malapuram ; estimate Rs. 13,660, expenditure Rs. 7,222.
(2) A sub-registrar's office at Chevayur; estimate Rs. 3,020, expenditure Rs. 1,400.
(3) Improvements to the munsif's court at Betatnad ; allotment, Rs. 2,000 was fully worked out ; estimate Rs. 4,295.
(4) Additions and improvements to the Police Superintendent's office at Mangalore ; the full allotment of Rs. 3,000 was spent ; estimate Rs. 9,200.
(5) A sub-registrar's office at Puthur and another at Udipi ; expenditure Rs. 1,000 and Rs. 1,200, and estimates Rs. 3,120 and Rs. 3,370, respectively.
(6) A sub-registrar's office at Mannárghat, for which an estimate of Rs. 2,450 was sanctioned.

. The Head Assistant Collector's residence at Coondapoor, an incomplete work of the previous year, was ~~fully~~ completed and handed over to the Revenue Department. The total expenditure was Rs. 16,680 against an estimate of Rs. 17,000, the outlay for the year being Rs. 8,915, against an allotment of Rs. 9,235.

. The following works were completed :—

(1) The conversion of a vacant building in the fort at Tellicherry (late jail) into a Sub-Collector's cutcherry. Outlay amounted to Rs. 1,665.
(2) Additions and alterations to the district munsif's court-house at Paynad, commenced in the previous year. The total outlay was Rs. 1,509, against an estimate of Rs. 1,520.
(3) The conversion of the sweepers' quarters at the lunatic asylum, Calicut, into a patients' ward. The expenditure amounted to Rs. 2,268, against an estimate of Rs. 2,740.
(4) The erection of a temporary shed for the accommodation of 36 patients at the lunatic asylum at Calicut for Rs. 850.

. A sum of Rs. 6,683 was spent on repairs, the chief items being :—

(1) Repairing the roof of St. John's church at Cannanore, Rs. 1,715 ;
(2) Rebuilding the turret of the district munsif's court-house at Tellicherry, Rs. 475 ;
(3) Repairing the record room of the huzur cutcherry at Calicut, Rs. 572 ;
(4) Repairing the Malapuram church and belfry, Rs. 650 ;
(5) Repairing the taluk cutcherry at Manjeri, Rs. 1,580.

. **North Arcot.**—The construction of a sub-magistrate's cutcherry with out-houses at Arkónam was in progress. The outlay was Rs. 8,186, against an estimate of Rs. 14,245.

. Improvements to the sub-magistrate's cutcherry at Punganúr were put in hand, and an outlay of Rs. 2,410 was incurred, on an estimate of Rs. 4,480.

. Seven minor new works were in progress, of which five were completed. The total outlay amounted to Rs. 7,484.

. Twelve repair works were carried out at a cost of Rs. 5,501.

. **South Arcot.**—A sum of Rs. ~~1,200~~ was spent on collecting materials for the construction of a sub-registrar's office at Villupuram ; estimate Rs. 3,020.

. Eight minor new works, on which a sum of Rs. 2,636 was spent, were in progress, of which three were completed, viz. :—

(1) Sub-registrar's office at Oolundurpett.
(2) Conversion of the office of the Assistant Superintendent of Police into a sub-registrar's office at Tirukoilur.
(3) Lascars sheds in the compound of the South Arcot divisional office, Cuddalore.

. Under Repairs a sum of Rs. 1,985 was spent.

. A contribution by the Cuddalore Municipality of Rs. 60 for survey establishment in connection with the preparation of an estimate for a bridge across the Gadilam river was spent ~~for the purpose~~. A sum of Rs. 14, being the balance of a contribution given by the same municipality in 1885-86 for repairs to the powder magazine at Munjakuppam, was utilized in refixing the lightning conductor.

. **Chingleput.**—The upper-storey of the Agricultural College at Saidápet, for which an estimate of Rs. 18,370 was sanctioned in March 1885, was commenced and completed, with the exception of the tower and lightning conductors. The expenditure was Rs. 16,096.

. Seven minor new works were completed at a total cost of Rs. 6,974.

. The buildings at Government House, Guindy Park, and other buildings were repaired at a total outlay of Rs. 15,502.

. **Presidency and Bangalore.**—An expenditure of Rs. ~~4,419~~ was incurred on materials for the alterations to the roof of the north and south wings of the Public Works offices at Chepâk. The sanctioned estimate was Rs. 5,035. The work was completed during the year. The saving was chiefly due to the utilization of materials in the old roof.

. An estimate of Rs. 5,764 was sanctioned for the construction of tiffin-rooms for the clerks of the Revenue Board offices and students of the College of Engineering. The old tiffin-rooms, which stood on the south side of the College of Engineering, an old Carnatic building, a part of which was in a dilapidated state, were pulled down to make room for the extensions to the College of Engineering and a new range of tiffin-rooms was constructed on another site. By utilizing a large quantity of the serviceable materials belonging to the old tiffin-rooms a saving was effected on the estimate. The total expenditure amounted to Rs. 5,215.

. Additions were made to the College of Engineering, Madras. The walls were raised 20 feet above the ground level and a great portion of the materials collected and worked. Further progress in construction had to be delayed owing to the non-arrival from England of rolled iron girders.

. The construction of covered passages at the new Ophthalmic hospital at Madras was completed. The outlay amounted to Rs. 9,192, against an estimate of Rs. 11,010. An expenditure of Rs. 616 was incurred for laying out the grounds with plants and shrubs.

. A total expenditure of Rs. 10,640 was incurred on repairs to the Lying-in-hospital at Madras. The general repairs chiefly consisted in replastering the lower portions of wards with Portland cement, painting wood and iron works, washing, &c. The special repairs consisted in taking up and relaying the tiled roofing with a lining of Willesdon paper. The buildings were placed in excellent order.

. The construction of a latrine, on the banks of the Buckingham canal, west of the Senate House, which was commenced in 1885-86, was completed ; expenditure Rs. 6,390 ; estimate Rs. 6,600.

. The fishing village on the south side of the Presidency College was removed to the west side of the canal. The work was successfully completed at a cost of Rs. 35,115, against the estimate of Rs. 36,158.

. The work of constructing cook-houses and fencing the compounds of the several quarters attached to the College of Engineering was completed; expenditure Rs. 3,851; estimate Rs. 3,872.

. An estimate of Rs. 2,946 was worked out for alterations and additions to the Presidency College, especially to the physical science department. The outlay amounted to Rs. 2,775.

. The estimate, amounting to Rs. 27,139, for improvements to the roads and maintenance of trees and plants in the Chepâk park, was worked out. Most of the expenditure was incurred in 1886-87, and the total outlay amounted to Rs. 27,802.

. An estimate of Rs. 2,455 was sanctioned for the repair and maintenance of the roads in Chepâk park; the expenditure amounted to Rs. 2,463.

. A sum of Rs. 10,529 was spent during the year for minor (original) works, principally—

(1) Making a road in the open land north of the Ophthalmic hospital.
(2) Cleaning and levelling the site of the old fishing village.

. Rs. 17,717 was spent on repairs to buildings during the year, including the maintenance of the foreshore and ride at the south beach and the repairs executed to the old eye infirmary; Rs. 4,809 were paid on account of municipal taxes for the Public Works Department offices and Government brickfields.

. New seats were provided to St. Matthias' Church, Vepery, at a cost of Rs. 2,404; estimate Rs. 2,930.

. Rupees 3,669 were spent on improvements to, and extension of, the verandah of the main record-room, Government office, Fort St. George; estimate Rs. 4,290.

. The construction of the city reserve police lines at Pudupet was commenced, and an outlay of Rs. 5,461 was incurred against the estimate of Rs. 27,785 in the collection of materials.

. The construction of an upper storey to the office of the Deputy Commissioner of Police was commenced, and an outlay of Rs. 2,537 was incurred in the collection of materials against an estimate of Rs. 10,290.

. The following works at Her Majesty's Penitentiary were commenced and in progress:—

(1) Quarters for the hospital assistants; estimate Rs. 5,774, outlay Rs. 4,960.
(2) A new work shed; estimate Rs. 3,200, outlay Rs. 2,545.
(3) New roofs to the close prison cells; estimate Rs. 11,200, outlay Rs. 2,290.
(4) Twelve solitary cells, commenced last year, were completed; estimate Rs. 5,750, outlay Rs. 5,308.

. A sum of Rs. 1,907 was spent on an estimate of Rs. 2,711 for ornamenting the ceilings of the nave of St. George's Cathedral, and the work was postponed for completion in 1887-88.

. A commencement was made on the new gate-way for St. Mary's Cemetery, and Rs. 2,092 were spent on an estimate of Rs. 6,285.

. The property known as the Government Female Normal School at Egmore was purchased from the proprietor for Rs. 12,000.

. A cottage for twelve lunatics and a block of six rooms for native criminals at the lunatic asylum were commenced and completed at an outlay of Rs. 8,862 against an estimate of Rs. 9,630.

. A sum of Rs. 4,493 was spent at Madras on furniture for Government-house at Madras, Guindy and Ootacamund.

. Thirty-two minor new works were carried out at a cost of Rs. 10,098.

. One hundred and twenty-five repair works at Madras and twelve in Bangalore were carried out. None of the works at Bangalore were of much importance.

. The following are the more important repairs of those carried out in Madras:—

(1) Repairs to the Government Secretariat buildings, Fort St. George; estimate Rs. 3,635, outlay Rs. 1,054.
(2) General repairs to Government House, Banquetting Hall, Marine Villa, and out-houses attached; estimate Rs. 11,550, outlay Rs. 11,960.
(3) Repairs to the Lock Hospital, Black Town, Madras; estimate Rs. 6,755, outlay Rs 4,249.
(4) Repairs to the roofs of the Public Works Workshops and Stores and renewal of the roof of the Workshop foundry; estimate Rs. 6,855, outlay Rs. 5,495.

. A sum of Rs. 536 was spent on alterations and additions to the petroleum shed on the beach which was completed last year.

. Under repairs a sum of Rs. 298 was received from the Secretary, Biden Home Committee, for carrying out repairs to the Home, and Rs. 3,422-6-5 from the Secretary, Military Female Orphan Asylum, for carrying out certain works to the asylum buildings. Out of the first mentioned contribution, a sum of Rs. 282 was spent and the work completed. The other contribution was received only in March.

Trichinopoly.—The construction of a district jail in Trichinopoly, for which a grant of Rs. 11,500 was sanctioned, was in progress. The expenditure amounted to Rs. 11,131.

. The sub-registrar's office at Manaparai was completed at a cost of Rs. 2,152, the sanctioned estimate being Rs. 2,090.

. The following repairs were carried out:—

(1) Re-roofing block No 1, Central jail. The repairs were nearly completed and at an outlay of Rs. 2,586.
(2) District munsif's court at Ariyalúr, on which a sum of Rs. 490 was spent.

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

(1) A district jail at Tanjore; estimate Rs. 2,11,100, outlay Rs. 2,02,771.
(2) A police station-house at Tanjore; estimate Rs. 6,740, expenditure Rs. 7,113.
(3) Compound mud-walls of the warders' huts attached to the district jail, at a cost of Rs. 1,255, against an estimate of Rs. 1,420.
(4) Alterations to a portion of the old taluk cutcherry for the accommodation of the sub-registrar's office at Triviar; estimate Rs. 1,220, outlay Rs. 1,225.

. The following works were in progress:—

(1) A combined court-house for the district munsifs at Kumbakónam and Valangiman; estimate Rs. 34,342, expenditure Rs. 7,607.
(2) A first-class taluk cutcherry at Kumbakónam; estimate Rs. 19,240, expenditure Rs. 249.
(3) Extensions to the police station-house at Kumbakónam; estimate Rs. 2,700, outlay Rs. 1,141.
(4) Police station at Kornad, in the Máyavaram taluk; estimate Rs. 1,130, expenditure Rs. 1,102.
(5) Construction of six huts for the land custom police at Nalladay; estimate Rs. 1,950, expenditure for land compensation Rs. 141. Work held in abeyance.

. Repairs to the buildings below mentioned were put in hand:—

(1) District court, Tanjore, to which lightning conductors were added. Work completed; estimate Rs. 1,127.
(2) Taluk cutcherry at Shiyáli in progress; estimate Rs. 1,240.

. **Negapatam.**—An estimate, amounting to Rs. 1,200, was sanctioned for extending the Government cemetery at Negapatam; outlay Rs. 459.

. The compound of the Executive Engineer's office at Kodambady was metalled at a cost of Rs. 147.

. Rupees 1,073 was paid as compensation for the land taken over for the district munsif's court at Tiruválúr.

. The following repair works were carried out :—

(1) The portion of St. Joseph's College buildings where the tahsildar holds his office, at a cost of Rs. 1,132.
(2) The sub-registrar's office at Tiruturaipúndi, at a cost of Rs. 86.
(3) Other sundry repairs to the extent of Rs. 196.

— **Madura.**—The following works were in progress :—

(1) The construction of a sub-magistrate's cutcherry at Madura ; estimate Rs. 17,889, allotment Rs. 9,889. A sum of Rs. 5,000 was expended up to the end of 1885-86 and Rs. 9,889 in 1886-87.
(2) The construction of a second-class police station-house at Sáptúr ; estimate Rs. 4,850 ; allotment Rs. 2,350, outlay Rs. ~~2,056~~. 2086
(3) The construction of a sub-registrar's office at Tirumángalam ; estimate Rs. 2,864 ; allotment Rs. 950.
(4) Improvements to the deputy tahsildar's cutcherry at Tirushuli ; estimate Rs. 3,785 ; allotment Rs. 1,000.
(5) The construction of a second-class police station-house and one head and five constables' huts at Ammyanáyakanúr ; estimate Rs. 3,850 ; allotment Rs. 1,200, out of which Rs. 570 only was expended.

— The following works were completed :—

(1) A deputy tahsildar's cutcherry at Vedasundur ; estimate Rs. 11,828, total expenditure Rs. 12,200.
(2) A deputy tahsildar's cutcherry at Uthamapoliam ; estimate Rs. 11,993, expenditure Rs. 12,547.
(3) A deputy tahsildar's cutcherry at Nellakóta ; estimate Rs. 11,828, expenditure Rs. 12,319.
(4) A sub-registrar's office at Usilampatti ; estimate Rs. 2,580, expenditure Rs. 2,611.

. The allotment under Minor Original Works was Rs. 1,345 ; expenditure Rs. 1,217 ; of this Rs. 1,055 was expended in constructing a second-class police station-house at Iyalur and Rs. ~~161~~ on securing the treasury-room of the taluk cutcherry at Tirumangalam ; and these two works have been nearly completed.

. A sum of Rs. 1,800 was allotted to repairs. The expenditure, which amounted to Rs. 2,188, was utilized chiefly in :—

(1) Repairing the Sub-Collector's bungalow, taluk cutcherry and Public Works office at Dindigul ;
(2) Maintaining the garden in Terumal Naick's palace at Madura ; and
(3) Fixing lightning conductors in the palace at Madura.

. **Ramnad.**—The expenditure during the year on work of converting the police hospital at Ramnad into a residence for the Assistant Superintendent of Police was Rs. 3,152, against the grant of Rs. 3,239 ; the work was fully completed.

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

(1) The construction of a record-room and improvements to the district court-house at Kokarakulam ; estimate Rs. 17,875, expenditure Rs. 12,183.
(2) The construction of a registrar's office at Kokarakulam ; estimate Rs. 4,380, expenditure Rs. 4,268.
(3) The construction of a sub-registrar's office at Srívilliputur ; estimate Rs. 2,705, expenditure Rs. 2,638.
(4) Addition of a compound-wall to the sub-jail at Sankaranainárkoil ; estimate Rs. 4,312, expenditure Rs. 3,817.

. The following minor original works were completed or in progress :—

(1) Sub-registrar's office at Vattirayirupur ; estimate Rs. ~~2,142~~, expend Rs. 2,142.
(2) Sub-registrar's office at Sattankulam ; estimate Rs. 2,080, e Rs. ~~2,142~~. 2014

(3) Third-class police station-house at Singhikulam ; estimate Rs. ~~1,137~~, 1397 expenditure Rs. 1,104.
(4) Drainage work for the district jail at Palamcottah ; estimate Rs. 370, expenditure Rs. 368.

. Repairs to the buildings below mentioned were completed :—

(1) Head Assistant Collector's bungalow.
(2) Public Works Department sub-divisional officer's bungalow at Shermádevi.
(3) The Sub-Collector's bungalow at Tuticorin and some other petty works.

IV.—PROVINCIAL—COMMUNICATIONS.

. **Vizagapatam.**—The construction of the Potinghi ghât road was completed with the exception of the iron work for one of the two bridges, which has been ordered from England ; estimate Rs. 4,56,581, outlay Rs. ~~4,31,639~~. 4,34,592

. An estimate of Rs. 2,72,700 was sanctioned for the construction of a road from Potinghi to Koraput. A sum of Rs. ~~30,410~~ was spent on the work, which was in slow progress owing to great difficulties experienced. 30,569

. The work of surveying and levelling the road from Koraput to Jagadalapur was put in hand. Plans and surveys of 35 miles beyond Koraput towards the Central Provinces were completed. Upwards of 100 miles remained to be done. The expenditure amounted to Rs. ~~1,012~~, against an estimate of Rs. 1,500. 1,213

. Under Repairs a sum of Rs. 18,691 was expended in maintaining the Potinghi ghât road, against a grant of Rs. 18,170. The roads were maintained in fair order and the damages done to the road by the heavy rains during the monsoon were repaired.

. **Godavari (East).**—The navigation works at Dumagudiem were maintained at a cost of Rs. ~~7,082~~ during the year. 7,738

. **Nilgiris.**—Under this head the following works were completed :—

(1) A new road ~~up~~ Mountstuart at a cost of Rs. ~~8,427~~. 8627
(2) Improvements to the road from Ootacamund to Gúdalúr.
(3) Rest-houses with out-houses on the ghât at the 9th mile below Coonoor at a cost of Rs. 7,359.
(4) Widening and remetalling the ghât road from Kullar to Gúdalúr at a cost of Rs. 3,671.
(5) A new bridge at Barliyár was partly completed.

. **Presidency and Bangalore.**—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.

V.—PROVINCIAL—MISCELLANEOUS PUBLIC IMPROVEMENTS.

. **Buckingham Canal Division.**—An outlay of Rs. 417 was incurred on clearing trees on two islands in the Adyar river. The work was in progress.

. **Nilgiris.**—A sum of Rs. 1,10,085 was expended on improvements to the Ootacamund water-supply north of the lake. The work was in progress.

. The bazaar drainage scheme was fully completed.

. A sum of Rs. 1,720 was spent in improving the margin of the Ootacamund lake.

. The Adam Memorial fountain was completed at a cost of Rs. 4,493.

Under Minor Works—

(1) A wall was built in the compound of the sub-magistrate's court at Gúdalúr, at a cost of Rs. 673.

(2) The construction of a raised foot-path from Charing Cross, Ootacamund, to the market was commenced.

. Under Repairs a sum of Rs. 933 was spent on the escapes of Ootacamund and St. Lawrence lakes.

. **West Coast.**—The revetment constructed for the protection of the town of Ponáni was extended to 520 feet and Rs. 3,295 expended, against an estimate of Rs. 4,280. The work was in progress and the revetment almost completed.

. **South Arcot.**—The embankment of the Gadilam river for the protection of the town of Tirupápuliyúr from floods, which was commenced last year, was nearly completed. The total outlay was Rs. 6,022, against the estimate of Rs. 8,550.

. **Chingleput.**—A proposal of M. deClosets for making an experimental Artesian boring in the Kortalayár basin was accepted in G.O., No. 1128 W., dated 5th May 1886. The work was commenced in June and the boring carried out to a depth of 200 feet, when there were some signs of water being likely to be tapped if the boring was made deeper. It has since been ordered to be carried to a depth of 300 feet.

. **Presidency and Bangalore.**—The estimate of Rs. 1,04,618 for improvements to the south beach promenade, viz., the construction of a promenade from the Napier bridge to Elliot's road was completed during 1886-87. The total outlay amounted to Rs. 1,05,383.

. A sum of Rs. 7,837 was expended against an estimate of Rs. 12,353 in extending the south beach marina. The brickwork in the retaining-wall on the sea-side was completed, the stone for coping to retaining-wall collected, and about three-quarters of the quantity dressed. The stone for the curb on the roadside was also collected and about one-half the quantity dressed.

. The following works were completed or in progress :—

(1) Planting the foreshore from the Napier bridge to Pycroft's road with grass; estimate Rs. 4,765, outlay Rs. 4,748.

(2) Continuing the stone dwarf wall along the western side of the South beach road from Pycroft's road to the old Hindu cemetery; estimate Rs. 11,834, outlay Rs. 9,335.

. Four bunds were thrown up across the Cooum river to keep the river-bed covered with water up to the South Indian Railway bridge. An expenditure of Rs. 896 was incurred on this account and a further outlay of Rs. 835 on repairs to these bunds, and the work of clearing the water between them of weeds. A total outlay of Rs. 850 was spent on the general conservancy of the river.

. **Tanjore.**—A masonry wall for the protection of Kumbakónam town on the south side of the Cauvery was constructed at a cost of Rs. 2,257, against an estimate of Rs. 2,330.

VI.—LOCAL INCORPORATED.

. **Godavari (East).**—The total expenditure up to the end of the year on the Covur-Munjair junction canal amounted to Rs. 1,40,855, against an estimate of Rs. 1,45,525.

. A sum of Rs. 5,431 was spent on the construction of an iron lattice girder bridge at Vencatakrishnapuram lock, of the Sámalkót canal, against an estimate of Rs. 5,550. The bridge was completed and opened for traffic.

. A short outlay of Rs. 1,576 under Repairs was due chiefly to estimates not having been received from the Executive Engineer, Godávari Eastern division, for the full amount of allotment.

. **Kistna (East).**—The construction of a landing stage at Bezváda was in progress. Out of a grant of Rs. 7,788, only Rs. 4,098 were spent. The retaining

wall was nearly completed and about one-third of the stone pitching to the bank carried out. The total expenditure amounted to Rs. 17,875, against the estimate of Rs. 21,566.

. **Kistna (West).**—The river and canal banks used as roads were maintained in proper order at an expenditure of Rs. 937, against a grant of Rs. 1,000.

. Materials were collected for the construction of a culvert under the good-water channel at Nizampatam. Owing to the late sanction, a sum of Rs. 120 only was spent on an estimate of Rs. 900.

. **Trichinopoly.**—A sum of Rs. 626 was spent in maintaining 20 miles of road in this district.

. **Tanjore.**—Under this head a sum of Rs. 5,987 was spent in maintaining 109 miles of road in this district.

. **Negapatam.**—A sum of Rs. 3,740 was spent in maintaining 42½ miles of road in this district.

VII.—LOCAL—EXCLUDED.

. **Ganjam.**—An expenditure of Rs. 2,11,065 was incurred in constructing an iron pier at Gopálpur against an estimate of Rs. 2,30,903. Seventy bays were completed up to the end of March 1887 against the estimate of 93. A revised estimate for Rs. 3,08,200 was since sanctioned.

. **Godavari (East).**—A sum of Rs. 1,031 was spent in setting up a new fourth order dioptric light at the Hope Island light-house against an estimate of Rs. 954.

. **Vizagapatam.**—The second-class order light for the Santapally light-house was unpacked and set up at a cost of Rs. 308.

. A new lightning conductor has been ordered from the Public Works Stores, Madras.

Kistna (East).—The silt in the salt creek below the tidal lock at Masulipatam was cleared away. Rupees 475 only was spent out of an allotment of Rs. 1,560 owing to the allotment having been given late in the year.

. **Nellore.**—The grant and outlay under this head in the Buckingham canal division were Rs. 4,364 and 3,664, respectively. Improvements to the superintendent's quarters at Armeghon light-house were nearly completed, and the following works were in progress :—

(1) Further improvements and alteration to the superintendent's quarters at Armeghon light-house.
(2) Constructing lines for the lascars attached to the above named light-house.
(3) Constructing lines for the lascars attached to the light-house at Pulicat.
(4) Repairing the damages which these light-houses received during the cyclone of November 1886.

. **Chingleput.**—The light-house at the Seven Pagodas was in progress on an estimate of Rs. 8,165, sanctioned in G.O., No. 2708 W., dated 15th October 1886.

. The work consists of—

(1) The construction of a stone platform for a fourth order light.
(2) the construction of Superintendent's quarters.
(3) the construction of lascar's lines.
(4) the construction of two sentry boxes.

. **Presidency and Bangalore.**—The following major works were completed :—

(1) Paving the vaults of the Senate house; estimate Rs. 4,343, outlay Rs. 3,715.

(2) Closing the openings to the vaults of the Senate house; estimate Rs. 2,600, outlay Rs. 2,614.

. Some minor new works were executed at a total cost of Rs. 1,013 and repairs to the extent of Rs. 799.

. Rupees 108 was expended in maintaining and laying out the ground near the Senate house with shrubs and plants.

. **Ramnad.**—The port officer's bungalow at Pámban was repaired at a cost of Rs. 921 against a grant of Rs. 934.

. **Tinnevelly.**—Out of a grant of Rs. 42 for forming a new earth-plate, &c., to the lightning conductor attached to the light-house on Hare Island Rs. 7 were spent.

. A grant of Rs. 230 was sanctioned for repairs to the light-house superintendent's quarters at Muttum, which were completed at an outlay of Rs. 228.

List of plans & Estimates prepared in the Consulting Architects office during 1886-87.

Estimate for watering Roads in the Chepauk Park & maintaining Service pipes

Estimate for painting 22 Iron Sankeys in the Revenue Board office

Estimate for providing sunshades to the Lithographic office

Estimate for paving the vaults of the Senate House with Cuddapah Slabs

Plan shewing proposed arrangement of seats in the meeting room, Senate House

Plan of new fishing village Triplicane

Estimate for Conservancy Establishment for floating Latrine &c

Plans & Estimate for additions to the Presidency College for the teaching of Biology

Estimate for maintaining the foreshore, Rido & watering plants at Chepauk.

Estimate for fittings for the office of the Asst. Director of Revenue Settlement.

Estimate for rebuilding a portion of

of the out houses of the Civil Engineering College -
Principal's quarters.

Estimate for improving the
Ventilation in the Telegraph office

Estimate for repairs to the Madras
Observatory

Estimate for repairs to the Wallajah
Bagh.

Estimate for manufacturing -
bricks & Tiles at the Government kilns.

Detailed Estimate for acquiring
the site of the fishing village South of the Presidency
College.

Two designs for placing the
Electric Clock in the P. W. D. Office at Chepauk

Plan & Estimate for Muchis
room in the P. W. Examiners office

Estimate for altering punkahs
in the Post office.

Estimate for providing 15 -
deodorizing Ventilators to the Beach Main
Sewer.

Estimate for repairs to the
quarters of Superintendent, Military Students
Civil Engineering College

Plan & Estimate for stables
Ambulance Transport Depot.

Estimate

Estimate for certain alterations to the
Telegraph office

Plans of the three floors of the present
High Court buildings shewing additions & improvements

Estimate for repairs to the floors of
the Revenue Board office.

Plans & Estimate for additions to the
College of Engineering

Revised plan & Estimate for a
Laboratory & Lecture Hall for the Professor of
Biology, Presidency College.

Plan & Estimate for the Victoria
Caste Hospital.

Plan & Estimate for weather -
Boards for the apothecarys quarters Ophthalmic -
Hospital

Estimate for fixing Iron wire
netting for doors of signal room Telegraph office.

Detailed plans for the Brooks
Memorial School.

Estimate for constructing six new
sheds at the Government kilns.

Plans for the A. E. the Governors
Bandsmens quarters

Plans & Estimate for laying out
the site of the old fishing village South of the
Presidency College.

Estimate for improving the lightning
Conductors at the Post & Telegraph Offices

A.

A complete set of plans of the Lying-in Hospital for the Bombay Government.

Plan & Estimate for Estending the South Beach Marina from Elliot's Road to St Thome.

Plan & Estimate for a Road on the North side of the Ophthalmic Hospital.

Plans of the upper & lower floors of the proposed combined office for the Inspector General of Registration, District & Diocesan Registrar.

Estimate for gravelling Roads &c at the Lying in Hospital.

Estimate for screens &c, at the Salt Commissioner's office.

Plan & Estimate for Covered passages at the Ophthalmic Hospital.

Revised standard Design for a District Munsiff or Subjudges Court.

Revised standard Design for a Tahsildars & a Deputy Tahsildars Cutcherry.

Revised Estimate for the Covered ways at the Ophthalmic Hospital.

Revised plan & Estimate for a second boat for the floating Latrine.

Design for the Trevelyan & Drinking fountain, at the Peoples Park.

Detailed quantities for the Revised standard Design for a District Munsiff or Subjudges Court.

Two Designs & Estimates for Converting

Converting the Tudor Company's Ice House into, a Public office.

Plan & Estimate for a Police station and Vaccination Depot at Black Town.

Plan & Estimate for placing the Electric Clock in the South Verandah of the Senate House.

W Marsden Esq
Offg Consulting Architect
to Government.

No: 1

PW 4001/87

P. W. D

Consulting Architect's Office,
Chepauk, Madras,
25th May 1887

No. 259

From

J. W. Brassington Esq:
The Consulting Architect
to the Government of Madras,

To

The Chief Engineer
Public Works Department.

Sir,

Enclosure.

I have the honor to submit the following Report on the administration of this Office, during the official year 1886-87.

Colonel Ross Thompson R.E. officiated, as Consulting Architect upto the 23rd November 1886 and was relieved by me, on that date:-

General Remarks

The total amount expended on original works and repairs was Rupees 1,32,167 under

under the following heads:—

Imperial Civil Works— Rs 11,347

Provincial— " — " 76,801

—do— Miscellaneous

Public Improvements— " 34,501

Local Excluded— " 9,518

Total Rs 132,167

Post & Telegraph Office— The Lightning conductors of the Combined Post & Telegraph Office which were laid in accordance with former instructions were added to and made to accord with the recent Code Instructions.

G.O. No: 3117 W. dated 24th November 1886.

College of Engineering— The construction of the additional accommodation necessary to meet the requirements of the sanctioned scheme for the re-organization of the College has progressed rapidly. further progress of the work will be delayed by the non arrival of the Girders indented for through the India Office.

G.O. No: 2547 W dy: 29th September 1886.

Ophthalmic Hospital— The covered passages which were struck out of the original Estimate of 1st March 1884, and since sanctioned to

Memo: No: 500 C dated 16th February 1887

G.O No: 7234 dy: 9th March 1887

to be executed were practically completed and being used, a little of the finishing & painting remains to be done. The covered passages supplied a great want and have improved the appearance of the place.

G.O. No: 3224 W dy: 6th December 1886

Improvements to the Beach— The Extension of the Promenade from Elliot's Road to St Thome a distance of 1,500 feet was in active progress. This section will complete the Promenade works Extending from the Napier Bridge to St Thome, a total distance of 10,666 ft.

G.O. No: 212 W dy: 26th January 1886.

The Extension of the stone wall along the side between Pycroft's Road, and the Hindu cemetery was in active progress.

G.O No: 1324 W dy: 26th May 1886.

The fishing village to the South of the Presidency College was entirely removed, and the ground levelled and the new village constructed on the West of the Canal. The many difficulties connected with this work were successfully overcome by the able assistance rendered to this Division by R. Ragoonatha Row Dewan Bahadoor.

G.O. No: 636 W dy: 9th March 1886

The Sewage farms adjoining the fishing village and Extending to the Old Hindu

Hindu Cemetery were taken over from the Municipality in November 1886, and the Hindu Cemetery which was closed from the 7th April 1887, for the purposes of cremation and Burial, has also been taken Charge of. There is a small thatched temple in the strip of ground acquired under the Act in accordance with G.O. No. 2107 dated 20th August 1886, in which services are still held. The Deputy Collector suggested that the people be allowed to continue the services as heretofore for sometime to come.

G.O. No. 1015 W. dt. 19th April 1886.

Brick and Tile Manufactory — In addition to the Bricks manufactured for Public Works 2,97,000 bricks were sold to the Madras Municipality for the Drainage works at an advanced rate of 7½ per cent over that prevailing in the Division, and 92,950 bricks for other Municipal works at an advanced rate of 24 per cent, 6,21,675 bricks were supplied to the Town Hall and Christian College at an advanced rate of 7½ per cent.

Six new drying sheds were constructed and 4 Clayton's Brick Presses indented

G.O. No. 2650 W dt. 11th October 1886.

5

invented for through the Swiss Office were received, with these machines excellent bricks are being moulded, cheaper than those by the old hand presses hitherto in use. A flooring tile press for manufacturing by the dry process has since been received, also a machine for making leaven sashes for stained glass windows.

Admy Reports

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indented for through the India office were received, with these machines Excellent bricks are being moulded, Cheaper than those by the old hand presses hitherto in use. A flooring tile press for manufacturing by the dry process has since been received, also a machine for making leaden sashes for stained glass windows.

Progress of Works

Imperial Civil Works

Major

Post office. Madras

Total sanctioned Estimate Rupees 372,125

Expenditure during 1886.87 Rs 9068

Amount previously expended .. 363248 — 372,316

Difference Excess Rs 191

Telegraph office. Madras

Total sanctioned Estimate Rupees 319969

Expenditure during 1886.87 Rs 13

Amount previously expended .. 317602 .. 317,615

Difference Saving Rs 2,354

The

The Expenditure incurred on the Post office Chiefly consisted in the conversion of the Commissariat Mule stables on the foreshore into stables for the Post office Mails including Mail Sergeants quarters. The whole scheme is now Completed.

Minor

Post Office Madras

Total amount sanctioned Rupees 575

Expenditure during 1886-87 —— " 546

Saving Rs 29.

Telegraph Office Madras

Total amount sanctioned Rupees 2215

Expenditure during 1886-87 " 1720

Balance to be spent Rs 495

The above work consisted in adding to the Lightning Conductors of the Post and Telegraph offices to bring them into accordance with the new Code of Regulations and other minor additions required by the Dept. Departmental offices.

Provincial

Civil Buildings

Major Works

Alterations to the roof of the North & South wings of the P.W.D offices Chepauk.

Sanctioned Estimate —— Rupees 5,035

Expenditure during 1886-87. Rs 2338

Amount previously Expended " 2081 —— " 4,419

Saving Rupees 616

This work was successfully completed and has greatly tended to improve the appearance of the Building. The saving is chiefly due to the utilization of materials in the old roof.

Tiffin rooms for the Clerks of the Revenue Board offices & students of the College of Engineering, Chepauk.

Sanctioned Estimate Rupees 5764

Expenditure during 1886-87 " 5215

Savings Rupees 549.

The

The old tiffin rooms which stood on the South side of the College of Engineering, an old Carnatic building, a part of which was in a delapidated state, were pulled down to make room for the Extensions to the College of Engineering and a new range of tiffin rooms constructed on another site. By utilizing a larger quantity of the serviceable materials belonging to the old tiffin rooms a saving was effected on the Estimate.

Additions to the College of Engineering - Madras

Sanctioned Estimate Rupees 9,066
Expenditure during 1886-87 " 2,266
Balance to be spent Rs 6,800

The walls are raised 25 feet above ground level, a great portion of the materials are collected and being worked, further progress in construction is delayed awaiting the arrival of the rolled Iron girders indented for through the India Office

Constructing

Constructing the Ophthalmic Hospital at Madras

Sanctioned Estimate Rupees 104,954
Expenditure during 1886-87 Rs 616
Amount previously Expended " 100,502 " 101,118
Saving effected Rs 3,836

The Expenditure incurred was due to the payment of the bill to the Agri. Horticultural Society for laying out the grounds with plants & shrubs.

Constructing Covered Passages to the New Ophthalmic Hospital

Sanctioned Estimate Rupees 11,010
Expenditure during 1886-87 " 9,192
Balance remaining to be spent Rs 1,818

The Covered passages are completed and in use, a little of the finishing work and painting remains to be done.

Lying in

Lying in. Hospital - Madras

Repairs General

Expenditure during 1886-87 Rupees 7,213

Repairs Special

Expenditure during 1886-87 Rupees 3427

The general repairs chiefly consisted in replastering the lower portions of walls with Portland cement, painting wood & Ironworks, &c. The Special repairs consisted in taking up and relaying the tiled roofing with a lining of Willesden paper. The buildings are now placed in excellent order.

Constructing a Latrine on the Banks of the Canal West of the Senate House.

Sanctioned Estimate Rupees 6,600

Expenditure during 1886 Rs 5840

Amount previously expended " 550 " 6390

Balance Rupees 210

The Latrine which was constructed

for the use of the Clerks of Revenue Board office and students attending the various Examinations held at the Senate House, was completed and used.

Acquiring the fishing village South side of the Presidency College.

Sanctioned Estimate Rupees 36,158

Expenditure during 1886-87 Rs-1,040

Amount previously Expended " 39,155 - " - 35,115

Saving Rupees 1043

This work which consisted of removing the fishing village on the West side of the Canal, was successfully completed.

Improvements to the family quarters attached to the College of Engineering.

Sanctioned Estimate — Rupees 3872

Expenditure during 1886-87 Rs 402

Amount previously Expended " 3449 " 3851

Saving Rupees 21

This work which consisted in constructing cook houses and fencing the compounds of the several quarters was completed.

Alterations and additions to the Presidency College

Sanctioned Estimate Rupees 2946
Expenditure during 1886.87 Rs 367
Amount previously expended " 2408 — " 2775
Balance Rs 171

The alterations & additions were carried out principally in the physical Science Department.

Improving the Roads at Chepauk & Maintaining trees.

Sanctioned Estimate Rupees 27,139
Expenditure during 1886.87 Rs 465
Amount expended previously " 27,337 " 27,802
Excess Rupees 663

Most of this Estimate was worked out in the previous year, during 1886.87 some roads and paths were maintained and planting done.

Repairing & Maintaining Roads in Chepauk Park.

Sanctioned Estimate Rupees 2455
Expenditure during 1886.87 Rs 350
Amount previously expended " 2113 — " 2463
Excess Rupees — 8

Minor Original Works

Rupees 10,529 was spent during the year under this head which chiefly consisted in making a Road in the open land North of the Ophthalmic Hospital. Clearing & levelling the site of the old fishing village, and other minor additions to buildings

Repairs

Rupees 17,717 was spent under this head during the year for the buildings in Charge of this Division

Division, including the maintenance of the foreshore & ride, at the South Beach Roads at Chepauk - and the repairs Executed to the old Eye Infirmary, a private building, where it was vacated, on the terms of the lease; also Rs 4809 paid, on account of Municipal Taxes for the P. W. Department offices, and Government Brickfields

V

Provincial
Miscellaneous Public Improvements.

Improvements to South Beach Promenade

Sanctioned Estimate Rupees 104,618

Expenditure during 1886.87 Rs 2535
Amount previously Expended " 102,828 " 105,383

Excess Rupees — 765

This work consisted in forming the promenade from the Napier Bridge to Elliot's Road, the work was completed during 1886.87

Extending the South Beach Marina

Sanctioned Estimate Rupees 12,353

Expenditure during 1886.87 — " — 7837

Balance Rupees 4,516

The brickwork in the retaining wall on the Sea side is completed, stone for coping the retaining wall, collected, and about 3/4 the quantity dressed, the stone for the curb on the Road side is, also collected and about one half the quantity dressed.

Planting the foreshore from the Napier Bridge to Pycrafts Road.

Sanctioned Estimate — Rupees 4768

Expenditure during 1886.87 Rs 2754
Amount previously expended " 1994 — " 4748

Saving Rupees 20

This work which consisted in forming a slope towards the Sea from the Retaining wall of the Promenade, with loamy Earth, a width of about 50 feet and planted with Grass, also a narrow gravelled path with some flower beds was completed.

Continuing

Continuing the Stone dwarf wall along the Western side of the South Beach Road from Pycrofts Road to the old Hindu Cemetery.

Sanctioned Estimate Rupees 11,834
Expenditure during 1886-87 " 9,335
Balance Rupees 2,499

All the stone required for the work was collected and more than 3/4ths the quantity dressed and about 1/2 the length of walling built up.

Watering plants & trees at Chepauk

Sanctioned Estimate Rupees 3,444
Expenditure during 1886-87 " 3,202
Saving Rupees 242

Local Excluded

Major Works

Paving the vaults of the Senate House.

Sanctioned Estimate Rupees 4,343
Expenditure during 1886-87 " 3715
Balance Rupees 628

The vaults of the Senate House were not floored and were consequently damp & infested with white ants. The floor was laid with Concrete and paved with Cuddapah Stone.

Closing the openings to the vaults of the Senate House.

Sanctioned Estimate Rupees 2,608
Expenditure during 1886-87 Rs 583
Amount previously expended " 2031 —— " 2,614
Excess Rupees 14

The outer openings to the vaults were secured with thick plate glass in teak frames and stone above to prevent rain entering the vaults

Minor Works

Some minor works were executed, at a total cost of Rs 1013, which consisted in adding additional door shutters &c

Repairs

Repairs to the Extent of Rupees 799 was Executed which, Consisted of pointing & plastering with cement.

Rupees 108/- was also Expended in maintaining and laying out the Ground near the Senate House with Shrubs & plants.

Manufactures.

Rupees 26,656 was Expended, at the Government Brickfields in the Manufacture of Bricks and Tiles, at the Government Kilns, and six new drying sheds erected, and the patent kiln repaired, at a cost of Rs 4,680

Tools & Plant

Four Clayton's Brick Pressing machines were obtained through the India Office for them the Charges paid up to 31st March 1887 being Rs 1,792

G. O. No 650 M. 17. 15th March 1886.

The Service Books of the Employees of this Division, are correctly Maintained.

A list of plans & Estimates prepared during the year under review is appended.

J. W. Bradding Esq
Offg: Consulting Architect
to Government

P.W.C. No. 4201

Public Works Department.

From

THE CONSULTING ARCHITECT

TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D

No. 259

Dated 25th May 1887

Received 26/5/87

No. of Enclosures. 1

Subject.

Submits Administration Report for the official year 1886.87.

Progress of Works.

Imperial Military Buildings

Madras - Presidency

Work on conversion of Racket Court in Fort Saint George into a covered Gymnasium was resumed, but owing to the late date on which the grant was given an outlay of only Rs 280 was incurred in the year. The total expenditure to the End of the year has been Rs 2600 on the estimate amounting to Rs 11,890.

On the conversion of A block Family Quarters, Fort St. George into Sergeants barracks Rs. a sum of Rs. 5,955 was spent in the year on the estimate amounting to Rs. 13,400.

Rs. 6298 were spent on an estimate of Rs. 6445 for improving the water supply of Fort St. George and the work is almost completed.

Additional work to the Coast Batteries has been in progress and Rs. 1965 were spent in the year on the maintenance of the Casuarina plantations on the beach to screen the Coast Batteries. The total outlay was Rs. 8184 against an estimate of Rs. 8,240.

Guard Rooms, kitchens and latrines for the Coast Batteries were built at a cost of Rs. 5870 on an estimate of Rs. 6025.

A sum of Rs. 161 was spent on improvements to the Armament, Fort St. George which had been almost completed last

last year on an estimate of Rs. 42,035 at an outlay of Rs. 37,435.

The reconstruction of the wheel wright shops at the Gun Carriage Factory was commenced and completed at a cost of Rs. 6,712 on an estimate of Rs. 7,370.

Bangalore.

Work on the improvements to the wash houses at the Parade Bks. was resumed and a sum of Rs. 2774 was spent in the year. The total expenditure to end of the year has been Rs. 10720 on the estimate of Rs. 12,500

The additions to the Military Prison at Agram were commenced and completed at a cost of Rs. 7478 on an estimate of Rs. 8,325.

A sum of Rs. 5560 was expended in the construction of Cavalry Stables at Agram with Mangalore Mizzion tiled roof for 66 additional horses

on

on an estimate of Rs. 5930. Work completed.

Public Buildings for a Regiment of Native Infantry on the Arab Lines plateau was commenced and an outlay of Rs. 15188 was incurred on an estimate of Rs. 21636.

Twenty one Minor New Works at the Presidency and thirty six at Bangalore were commenced and completed during the year at a cost of Rs. 10,404.

292 Repair works at the Presidency and 205 at Bangalore were carried out during the year.

Payments were made to the Madras Municipality of Rs. 19,297 on account of house, water & lighting taxes on Government Military Buildings outside Fort St. George and Rs. 6000 on account of maintenance and repairs of the Esplanade and Fort beach roads.

At Bangalore Rs. 1200 and Rs. 6300 were paid to the Cantonment Municipality for the conservancy of the

the Main sewer and for the maintenance of the 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. 1,21,497 at the Presidency and Rs. 49,051 at Bangalore.

The most important of the repair works undertaken during the year were-

Madras.

1. Repairing and limewashing walls of European Infantry Barracks Fort St. George - Estimate Rs. 3,690 Expenditure Rs. 1409.
2. Reroofing Mess House Fort St. George - Estimate Rs. 6400 - Expenditure Rs. 4081.
3. Repairing and limewashing public quarters at Gun Powder Factory. Estimate Rs. 3570 - Expenditure Rs. 811.
4. Thorough repairs to the Government Granary on the beach - Estt Rs. 8,800 Expenditure Rs. 6,897.
5. General repairs & asphalting floor of Army Clothing Department Estimate Rs. 2670 - Expenditure Rs. 2327
6. Supplying gravel to Parade ground and Sepoy's Court yards of N. I. Lines, Perambore - Estimate Rs. 6490 - Expenditure Rs. 6308.

Bangalore.

1. Painting doors and windows of Cavalry Agram Barracks - Estimate Rs. 3975 - Expenditure Rs. 3918
2. Painting doors and windows of R. A. Barracks - Estt Rs. 2,487 Expenditure Rs. 2,378.
3. Renewing filtering materials of the cistern at the Ulsoor Rock - Estt Rs. 1783 - Expenditure Rs. 1742
4. Renewing filtering materials of the cistern at Dhobies Wells - Estimate Rs. 1577 - Expenditure Rs. 1516.

5. Painting doors and windows of Ulsoor R. H. A. Barracks - Estimate Rs 1782. Expenditure Rs 1746.

Upto the end of 1885/86 the works completed at the New Barracks at the Mount were - Chingleput.

Barracks East block
—do— West —do—
Three wash houses
—do— Kitchens
Wheeler shop
Store Room
Latrines.

In 1886-87 the Recreation Room and coffee shop, Plunge bath and drains were completed. The whole project has cost Rs 1,37,694 on the estimate of Rs 1,46,910. Expenditure in the year has been Rs 18034.

For the six blocks of stables for the Royal Artillery barracks at the Mount completed by the end of 1885/86 granite stones were provided for head and heel posts and the construction of 3 gearing rooms

rooms was commenced during the year. The aggregate estimate amount is Rs 23,389 against which a total outlay of Rs 22,914 was incurred upto 1886-87. The expenditure during the year has been Rs 1570.

Construction of a coffee shop with kitchen for the Upper storey Barracks St Thomas Mount was in progress. Rs 2165 were expended on an estimate of Rs 6690. The walls have been raised to a height three feet and all the wood work has been prepared.

Seven Minor New works were completed at a cost of Rs 1232.

Repairs to 73 buildings were carried out at a total expenditure of Rs 18,848 and said of stables in horse lines of 1st Battery R.A at the Mount renewed at a cost of Rs 5908 and the roads in the Cantonments of Mount, Pallavaram and Poonamallee were maintained at an outlay of Rs 2864. The total expenditure under Repairs including Barrack Masters Petty Repairs - Compensation for quarters

Taken as a whole - under Minor new works and repairs

quarters &c has been Rs 36,236.

The principal buildings repaired were:—

1. Repairing white and color washing the South Barracks at the Mount. Estimate Rs 3020. Expenditure Rs 2817.
2. Repairing Garrison Store Room in the Staff Office at Poonamallee. Estimate Rs 540. Expenditure Rs 499
3. Repairing Station Hospital and its out houses at Poonamallee. Estimate Rs 860. Expenditure Rs 782
4. Repairing white and colorwashing the 3 blocks of the West Barracks & its out houses - Mount. Estimate Rs 1360. Expenditure Rs 1355
5. Repairing and whitewashing the Station Hospital and its out houses Mount - Est Rs 910 Expenditure Rs 882.
6. Repairing the roof of Serjt Majors Quarters at Poonamallee. Est Rs 790 Expenditure Rs 742.

North Arcot

No major or minor works were carried out in the year.

A sum of Rs 2977 was spent under Repairs including the usual annual contribution of Rs 1000 paid to the Municipality on account of maintenance of Vellore Cantonment Roads.

South Arcot.

Rs 425 were spent out of a grant of Rs 444 on account of compensation for quarters for three Military apprentice Overseers and rent of quarters of the Serjeant Instructor of the South Indian Railway Volunteer Rifle Corps.

Imperial

Other Services.

Presidency.

No work of any importance was carried out; a few petty works were undertaken viz:—

Constructing porches to the Post Office at Mysore - Rs 96 were spent on an estimate of Rs 202.

Further progress was stopped at the request of Supt of Post Offices - Mysore.

Rs 81 were spent on illuminating Post and Telegraph Office at Bangalore on account of the Jubilee.

The following repairs were carried out -

Repairing and whitewashing walls of the Mylapore Postal and Telegraph Office - Estimate Rs. 155. Expenditure Rs. 152.

Repairing and whitewashing the Shoolay Post and Telegraph Offices - Bangalore - Estimate Rs. 186 Expd. Rs. 172.

A sum of Rs. 90 was spent for illuminating Post and Telegraph Buildings for the Jubilee. Chingleput.

A sum of Rs. 76 was spent on the construction of a well for the Purgunore Post Office - North Arcot.

Rs. 188 were spent in illuminating Post and Telegraph offices for the Jubilee.

Repairs to Postal Buildings were executed to the extent of Rs. 350 and Telegraph Buildings to the extent of Rs. 42.

A sum of Rupees 78 was spent in illuminating Postal and Telegraph buildings for the Jubilee and Rs. 148 on repairs to Postal Buildings. South Arcot.

Provincial.

6

Provincial

Civil Buildings.

Presidency - Madras.

New seats were provided to the Church of St. Mathias Vepery - The expenditure has been Rs. 2404 on an estimate of Rs. 2930.

On the Improvements & extensions of the verandah of the Main Record room, Government Office Fort St. George Rs. 3669 were spent on an estimate of Rs. 4290.

Work on construction of City Reserve Police Lines at Peddapett was commenced and an expenditure to the extent of Rs. 5461 was incurred on the estimate of Rs. 27,785 in the collection of materials.

The construction of an upper Story to the Office of the Deputy Commissioner of Police was commenced and an outlay of Rs. 2537 was incurred in the collection of materials on an estimate of Rs. 10290.

12 Solitary Cells at Her Majesty's Penitentiary commenced last year was

was completed, the year's outlay being Rs 3444, total expenditure Rs 5308. The estimate amount Rs 5750.

The following works at Her Majesty's Penitentiary were also commenced and in progress during the year.

Constructing quarters for the Hospital Assistants - Outlay Rs 4960
Estimate amount " 4726.

Constructing a new work shed.
Outlay — — — Rs 2,545
Estimate amount " 3,200

Putting on new roofs to the Close Prison Cells.
Outlay — — — — — Rs 2290
Estimate — — — — — " 11,200.

A sum of Rs 1907 was expended on an estimate of Rs 2711 for Ornamenting the Ceilings of the nave of St George's Cathedral and the work was postponed for completion in 1887-88.

A commencement was made on the new gate way for St Mary's Cemetery and Rs 2992 were spent on an estimate Rs 6285.

The property known as the Government Female Normal School at Egmore was purchased from the Proprietor for Rs 12,000.

A Cottage for 12 Lunatics and a block of 6 rooms for Native Criminals at the Lunatic Asylum were commenced and completed at an outlay of Rs 8862, on an estimate of Rs 9630.

At Madras Rs 4493 were spent on furniture for Government House at Madras, Guindy and Ootacamund.

32 Minor New Works were carried out at a cost of Rs 10,098.

A sum of Rs 250 was paid to the Chaplain, St John's Church, Bangalore, being the moiety to be paid by Government for providing Kerosine lamps to the Church.

125 Repair works at Madras and 12 in Bangalore were carried out.

None

None of the works at Bangalore were of much importance.

The following are the more important Repairs of those carried out in Madras.

(1) Repairing the Government Secretariat Buildings Fort St George - Estimate Rs 3635 - Outlay Rs 1054.

(2) General repairs to Government House Banqueting Hall, Marine Villa and out houses attached. Estimate Rs 11,550. Outlay Rs 11960.

(3) Repairs to Lock Hospital Black Town Madras - Estimate Rs 6755 Outlay of the year 4749

(4) Repairing the roofs of P. W. Workshops and stores and renewing the roof of Workshop Foundry - Estimate Rs 6885 Outlay Rs 5495.

The Upper storey of the Agricultural College at Sydapett for which an estimate of Rs 18370 was sanctioned in March 1885 was commenced in 1886-87 and completed, except the Tower and lightning

Chingleput-

lightning Conductors. The expenditure has been Rs 16,096.

Six Minor New Works were completed at a total cost of Rs 6974.

The buildings at Government House Guindy Park and other buildings, Churches &c have been repaired at a total outlay of Rs 15,502.

North Arcot-

On construction of Sub Magistrate Cutcherry with out houses at Arkonam the expenditure has been Rs 8186 on an estimate of Rs 14,245. Superstructure of out buildings nearly completed, that of main building just commenced. fencing in compound completed - materials mostly prepared for completing the work.

On the Improvements to the Sub Magistrate's Office at Perganore, an expenditure of Rs 2,410 has been incurred on an estimate of Rs 4480 - the greater part of superstructure of main building has been built and materials mostly prepared for completing it.

Seven

Seven Minor New Works were in progress of which five were completed. The expenditure has been Rs. 7484.

Twelve Repair works were carried out at a cost of Rs. 5501.

Materials were collected to the extent of Rs. 1200 for constructing a Sub Registrar's Office at Villupuram on an estimate of Rs. 3020. South Arcot.

Eight Minor New Works were in progress of which 3 were completed viz:-

(1) Sub Registrar's Office at Polur-durpett.

(2) Converting the Office of the Asst. Supt. of Police into a Sub Registrar's Office at Tirukoilur.

(3) Lascars sheds in the compound of the South Arcot Divl. Office - Cuddalore

The total outlay incurred on these Rs 2636.

Repair works were carried out at an outlay of Rs. 1985 to buildings - for which

2 } which rent is collected by the P.W. Department - besides other petty repairs.

Provincial.

Communications.

Presidency - A sum of Rupees 9058 was paid to the Madras Municipality for the maintenance of the roads leading from the Fort to the Mount and Pooramalle.

V.

Misc: Public Improvements.

Presidency - 4 Bunds were thrown up across the River Cooum to keep the river bed covered with water upto the South Indian Railway Bridge - An expenditure of Rs. 896 was incurred on this account and there was a further outlay of Rs. 835 on repairs carried out to these bunds and clearing the river between them. On the general conservancy of the river Rs. 850 were spent.

Chingleput - A proposal of Mr. de Closets for making an experimental Artesian boring in the Kortalliar basin was accepted in G.O.

G. O. No 1128 W of 5th May 1886. Work was commenced in June and the boring was carried out to a depth of 200 feet at an outlay of Rs 3359 on an estimate of Rs 3400. At this depth there were some signs of water being likely to be tapped, if the boring were made deeper and the boring has since been ordered to be carried down to a depth of 300 feet.

The Embankment of the Gaddelam river for the protection of the Town of Tirupapuliyur from floods which was commenced last year is nearly completed, but the slopes require to be dressed and turfed. The total expenditure has been Rs 6022 on an estimate of Rs 8,550, the year's outlay has been Rs 4,009. South Arcot.

Special, Civil Buildings.

Certain alterations & additions were carried out at an outlay of Rs 536 to the Petroleum Shed on the beach completed last year. Presidency.

The

8

The Light House at the Seven Pagodas has been in progress on an estimate of Rs 8,165 sanctioned in G. O. No 2708 W of 15th October 1886. Shingleput.

Work consists of

1 construction of a stone platform for a fourth order light.
2 Construction of Superintendents quarters
3 —do— Lascar's lines.
4 —do— two Sentry boxes.

the expenditure has been Rs 4181. All work in item 1 has been done except cutting rock.

In 2d & 3rd the wood work has been prepared. The fourth has been completed.

Special

Communications.

Materials to the extent of Rs 100 have been collected for the extension of the Pallayanallur Aqueduct in the 3rd mile of Goverapet Channel on an estimate of Rs 170 in connection with the conversion of the channel bank South Arcot.

into

into a road- Six roads along the banks of channels and tanks in Chidambaram Taluq were maintained during the year at an outlay of Rs. 4050. A sum of Rs. 279 was also spent on sanding the Veeranam Tank bank as a special repair work.

Contributions.

Contributions were received of Rs. 298 from the Secretary Biden Home Committee for carrying out repairs to the Home and of Rs. 3422-6-5 from the Secretary Military Female Orphan Asylum for carrying out certain works to the Asylum buildings- Out of the first mentioned contribution a sum of Rs. 282 was spent and the work completed. The other contribution was received only in March 1887. Presidency.

A contribution by the Cuddalore Municipality of Rs. 60 for Survey Establishment in connection with the preparation of estimate for a bridge South Arcot-

bridge across the Gaddelam River was spent for the purpose. A sum of Rs 14 being the balance of a contribution given by the same Municipality in 1885-86 for repairs to the Powder Magazine at Manjakuppam, was utilized in refixing the lightning Conductor, according to the instructions contained in the report by the lightning rod Conference.

Administration
Report
Vth Circle

No. 1427.

5th Circle.

Administration Report for Buildings and Roads for 1886/87.

General Remarks.

Colonel H. L. Prendergast R. E. the Supty: Engineer of the Circle left the Public Works Department on the 29th April 1886 and was succeeded by Colonel W. H. Burton R.E. who held charge of the Circle during the remaining portion of the year.

2. The condition of the Ulsoor Tank at Bangalore remains the same as in last year.

The Municipality are raising the Tank Calingulah one foot with a view of increasing the storage capacity of the Tank. The Municipality also propose to remove silt from – and deepen shallow parts of the Tank. It seems doubtful if this work can be carried out with the present depth of water in the Tank which is 3 – 5⅜ below Kody: the depth of water this time last year was 3 – 6¼ below Kody. The Tank contains enough water to meet the requirements of

of the Troops all this year.

Improvements by way of deepening and adding extra storage capacity are being carried out by the Municipality to the Upper Ulsoor Tank and the Lower Miller's Tank. The improvements when successfully completed will greatly add to and secure a better water supply to the Civil population.

3. The transfer of all the bridges in Madras to the Municipality was made with effect from the 1st April 1886 under G. O. No. 410 Mn dated 1st May 1886 Fin. Department.

4 No accidents of any importance occurred during the year.

5. There have been no marked changes in the rates of labor and materials during the year. Both a difficulty was felt in North Arcot in procuring skilled labor at Tirupati and Chendragherry owing to competition with State Railway.

6. Service books of all employees in the Circle are correctly written up to date except for two inferior servants lately entertained in North Arcot Division.

7. The rain fall of the year in Bangalore was greater than the previous year.

The rainfall from January to December 1886 was 41.19 inches, which is nearly 8 inches more than the fall of the previous year viz 33.34 inches.

The highest rainfall occurred in 1874 when 45.60 inches was recorded. The heaviest fall in 24 hours during the year under report was 4.76 inches which fell on 9th November 1886 - the total fall of the month being 4.89 inches.

From January to 31st March 1887 the rainfall amounted to .25 inches.

The rainfall from April to October 1886 in the Chingleput Division was generally a great deal more, both the fall in November and December last was very much less than that in the corresponding months of the previous year.

State Lewitt. stions. Legs.

681
452
12
5
75
23
9
6
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7

year. The operations of the Department were thereby interrupted for several months in the earlier part of the year. The average rainfall was 45.40 against 48.44 inches in the previous year.

The average rainfall throughout the North Arcot Division during the year was 46.31 against 38.91 in the previous year. The fall was not equally distributed between the 2 monsoons. The rains set in very early in the year but later on were a failure.

The rainfall during the year in the South Arcot Division was 43.30 against 47.46 inches of the previous year. The rainfall was rather unusual in one way, that is, there was a good deal of rain in each month from May to December, but on the whole the year was a favorable one.

The following is a statement of the grant and expenditure of the year.

Division	Service and Departmental Heads.	Budget grant	Final grant at the end of year	Outlay	Expenditure compared with modifications. More	Less.
Presidency	**Imperial – Military**					
	Original works	89,621	89,852	69,171	.	20681
	Repairs	175,000	175,000	170,548	.	4452
	Imperial – Other Services					
	Original Works – Postal	264	264	152	.	112
	Original Works – Telegraph.	30	30	25	.	5
	Repairs – Postal	250	250	418	168	.
	Repairs – Telegraph.	200	200	5	.	195
	Provincial					
	Original Works					
	Civil Buildings	16,091	73,628	64,005	.	9623
	Mis: Pub: Improvements	150	650	967	317	.
	Repairs.					
	Civil Buildings	45,000 ~~98,000~~	65,570	61,161	.	4409
	Communications	18,000 ~~9,000~~	12,471	8,655	.	3816
	Mis: Pub: Improvements	3,000	2,500	1982	.	518
	Tools and Plant	5226	2776	2317	.	359
	Excluded Local Fund.					
	Original Works.	663	663	536	.	127

Division. — Coimbatore — North Arcot

Service & Departmental Heads.	Budget grant.	Final grant at end of year.	Outlay	Expenditure compared with modifications More	Less
Imperial – Military.					
Original Works	43707	22717	22754	37	"
Repairs	30,000	36,000	36236	236	"
Imperial – Other Services.					
Original Works – Postal	"	100	90	"	10
Provincial					
Original Works.					
Civil buildings	25391	23,029	23,070		
Mis: Pub: Improvements	"	3300	3359		
Repairs					
Civil buildings	5000	15,550	15,502		
Excluded Local Funds.					
Mis: Pub: Improvements	"	4,000	4181		
Imperial – Military					
Original works	37	77	69		
Repairs	3,000	3000	2976		
Imperial – Other Services					
Postal	"	275	264		
Original Work } Telegraph –	"	10	9		
Postal	350	350	350		
Repairs } Telegraph	42	42	41		

Division. — South Arcot — North Arcot

Service & Departmental Heads.	Budget grant	Final grant at end of year	Outlay	Expenditure compared with modifications More	Less
Provincial					
Original Works					
Civil Buildings.	7480	19077	18,146		
Repairs					
Civil Buildings	7000	7020	5502		
Imperial – Military					
Repairs	200	444	425		
Imperial – Other Services.					
Original Works – Postal	"	100	78		
Repairs – Postal	200	200	148		
Provincial					
Original Works					
Civil buildings	26,000	4000	3636		
Mis: Public Improvement	6537	4537	4009		
Repairs					
Civil Buildings	2,000 ~~3000~~	2800	2528		
Incorporated Local Funds					
under Madras Act V of 1884					
Original Works.					
Communications	170	170	100		
Repairs					
Communications	4640	4730	4329		

In the Presidency Division the short outlay under Military Original works is partly due to grants for works having been given too late in the year (viz in G. O. Nos 300W, 388W and 487W dated 5, 9th & 18th February 1887) to admit of their being fully utilized and partly to alterations A block Family Quarters in Fort St. George not having been commenced till the last month of the year owing to the frequent revision of the estimate.

The short outlay under Military Repairs is the savings on estimates of completed works.

Under Provincial Civil Buildings Original Works some of the works were sanctioned so late in the year - that they could not be completed within the year - to this and to savings on works completed - the short outlay under this head is chiefly attributable.

Under Provincial Repairs Civil Buildings and Communications funds were reserved to meet payments on account of iron roof for the P. W. Workshops - compensation for sittings in Churches for Roman Catholic Soldiers - contribution to the Municipality for repairs of bridges in Madras but the payments have unavoidably been delayed - hence the short outlay under this head.

The short outlay in North Arcot under Provincial Civil Buildings Original Works and Repairs is due to unsatisfactory progress of the undermentioned works viz

(1) Registrar's Office at Tripati.

(2) Improvements to Sub Magistrates Office at Punganore.

(3) Repairs to Chendragheri Palace.

Owing to the works being situated - in out of the way places, difficulty of obtaining skilled labor &c.

In South Arcot the outlay under Provincial Civil Buildings Minor New Works and Repairs - have fallen short of the grants as the works were commenced after

after the rains and could not be completed within the year.

Rs 500 could not be spent from the grant under Miscellaneous Public Improvements ~~Major Works~~ for the Guddelore embankment work owing to scarcity of local labor - and Rs 401 under Local Communications Repairs. owing to delay in getting an estimate made in time for sanding the road on the Veeranam Tank bund.

Imperial.

Military Buildings.

Presidency

Madras -

Work on conversion of Packet Court in Fort St. George into a covered Gymnasium was resumed, but owing to the late date on which the grant was given an outlay of only Rs 280 was incurred in the year. The total expenditure to end of the year has been Rs 2600 on the estimate amounting to Rs 11,890.

Memorandum of Works Buildings for Admiralty Establishments to accompany Report on Buildings & Roads for 1886 - 87.

Locality	Name of Work	Probable Total Amount	Remarks.
Presidency			
Madras.	1. Demolition of the Bomb Proof Quarters of Fort St. George		Estimate for Rs 1,500 for demolition of the worst portion of the buildings. Estimate for Rs 1,000 for Sanitation.
Bangalore.	2. Cleaning out Storm water drains & Ditches Fort		
	Clinical Out Patient		
Sowery.	1. Regimental Hospital Quarters & Barrack.		Survey ordered in G.O. No 889 of 3rd November 1884 - Estimate for Establishments Sanction not yet received - No funds.

Locality		Name of Work	Probable Estimate Amount	Remarks
Madurantakum.	2.	Uttramerur Tank Channel Improvements.	50,000	There is an Estimate of Rs. 8367 for widening and deepening the Uttramerur Channel for 2 miles sanctioned - This may do for any relief work as a commencement - For further improvements Estimates will be required.
Somary.	3.	Korkkiar & Embankments East of Vellore Road.	177,860	Two Estimates for Rs 124,650 & 53,210 for the embankments at Narayanamadagu have been returned for revision
Do. and Trivellore.	4.	Naraniaveram River Irrigation	234,310	An Estimate for Survey Establishment has been just sanctioned for Surveying the Project - This will be taken up as soon as possible.
Maduranta kum.	5.	Edamichi Channel.	60,000	Complete Report and Estimate under preparation
Chingleput and Conjeveram.	6	Palar Flood Embankments.	29,600	Estimate received in the Superintending Engineer's Office & will be disposed of.

North Arcot.

Wallajah Taluq	1	Repairing bund of Mordoor Tank.	3690.	Estimate is ready & will be sent up for sanction.
	2.	Closing breach of Vengapet Tank	2720	Estimate not prepared.
Wandewash Taluq	3.	Repairing bund of Veeramoor Tank	2840.	Estimates have been received - Will be submitted after Check
Polur Taluq.	4.	Repairing bund of Kalambor Tank	3020	
Arcot Taluq.	5.	Cutting Channel from the South Surplus weir of Tennampett Tank to Perungalathur Tank.	6000	Nothing has been done towards the preparation of Estimate for this work.

Locality		Name of Work.	Probable Estimate amount	Remarks.
Arcot Taluq.	6.	Repairing & improving the Supply Channel of Vel. lapakam & Nackampol. lem Tanks	10,000	Nothing has been done towards preparation of Estimate for this work.
Vandewash Taluq	7.	Repairing bund, clearing silt of Varayurs large and small tanks and deepening Satty Channel.	5,000	Levels have been taken for the Channel
Polur Taluq.	8.	Repairing bund of Mambattu Tank	2,500	Nothing has been done towards preparation of Estimate.
Wallajah Taluq.	9.	Repairing Walaur Tank.	4,500.	Estimate being ex= =amined, shall be sent up shortly.
Wallajah Taluq.	10.	Repairing Kilmedy Two Tanks.	4000.	Levels & Estimate Required.
	11.	Repairing the bund of and Supply Chan. nel of Tattikolam large Tank. ——	3200	—— Do. —— Do. —
	12.	Repairing Oddiyanel. lore Tank ——	3750	—— Do. —— Do.
	13.	Repairing Allapakam Othamery Tank and Tangal ——	3500	—— Do. —— Do.
	14	Repairing Seruvalayam Tank & Chittery —	5000	—— Do. —— Do.
	15.	Repairing Kilpaukum Tank ——	3000.	—— Do. —— Do.
	16.	Repairing Seethoor Tank	5000.	—— Do. —— Do.

Locality		Name of Work	Probable estimate amount	Remarks
Wallajah Taluq	17.	Repairing Sangaram body Tank.	3000.	Estimate being examined & shall be sent up shortly.
	18.	Repairing Vennily Tank	3500.	
	19.	Restoring Olugoor Tank	3200.	
	20.	Repairing Saranjee Tank	4,500	Levels & Estimates required
	21.	Constructing weir to Pollipo Kani Tank.	2700.	
	22.	Repairing Anicut Tank.	5000	
	23.	Repairing Perumatchi Poojapattam Tank.	5000.	Estimate under examination, shall be sent up shortly
	24.	Repairing Kellandurai Tank	3,000	Do. Do.
	25	Repairing Piney Large Tank.	3,500	Do. Do.
	26.	Repairing Sholinghur Tank.	2,500	Levels & Estimate required
	27.	Repairing Agambara Vellore Tank.	2500	Do. Do.
	28.	Raising the right bank of the Piney Eastern Channel from the head to Dony Sluice.	5,000	Work considered not necessary now, bank being in good order. Work to the extent of Rs 500 only will be required
Vellore Taluq	29.	Constructing an Anicut & excavating a supply Channel to Kaniam-body Tank.	6000.	Nothing has been done towards preparation of Estimates for these works.
	30.	Constructing Earthen bank & rough Stone groynes above Palar river bridge to Palar River	5000.	

Locality	Name of Work	Probable Estimate Amount	Remarks.
Vellore Taluq	31. Improving Othiyalam Anicut and Supply Channel.	2500.	Nothing has been done towards preparation of Estimates for these Works.
	32 Constructing Masonry dam & excavation of a Channel from the Palar River to supply Tanneries Tank.	5,000	
Gordiattum Taluq	33. Repairing Kempa-rajapuram Supply Channel.	3000	No Estimate has been prepared
Chendragiri Taluq	34. Repairing Gazulamandiam Tank	4,500	Do. Do. Some repair work is being attended to

South Arcot

Cuddalore Taluq	1 Second Anicut across the Ponniar, near Pattambakam		Plans & Estimates for Rs 91,270 were sent to the Chief Engineer in 1871 by Superintending Engineer 5th Division but have been returned.
	2 A new Channel from the Vanamadevi Anicut left bank to Manjakuppam		Project found to be unremunerative even if feasible - only trial levels were taken
Vellupuram Taluq	3 Reddikuppam Anicut Project		All levels and surveys have been taken & plans & estimates prepared but the levels have not been checked & if is believed they are wrong to a great extent and the whole project will have to be gone into afresh

Locality	Name of Work	Probable Estimate Amount	Remarks.
Villupuram Taluq.	& Channels from Ponniar to Villupuram &c (improvement) (2) Pombay Channel.		(1) Surveys & levels have been made but they have not been checked: It is necessary to check levels & take a few more lines. (2) Estimate of Rs 25,200 for clearing & widening the Pombay Channel & raising its banks sanctioned in GO No 815 I of 9th Sept 1883 - but work not put in hand for want of funds.
	5. Vadavanoor Channel Project.		Survey & levels have been taken and plotted.
Tirukoilur Taluq.	6. Athoor Anicut Project.		Plans & Estimate for Rs 51728 were submitted to the Chief Engineer in November 1872 but the whole of the project requires to be reinvestigated - Vide GO No 2380 of 29th Sept 1873 & GO 1877 of 26th July 1886.
Kallakurchi Taluq	7 Pallagacherry Anicut Project		Levels taken and plans prepared both incomplete
Vridhachellam Taluq	8 Genthal Anicut Project		Plans, Surveys & levels are in an incomplete shape, the levels have not in any case been checked.
	9. Extension of Vridhachellam Anicut Channel.		Surveys levels plans & estimate prepared, but considered unreliable & the project will have to be gone over again
	10. Formation & improvement of the Ponniar embankment from Cuddalore to Tirukoilur in 3 Talugs.		Sections have been received from the late Executive Engineer Mr Larmine with an expression of opinion as to the feasibility of embanking the river on both sides, but they were on 22nd April again referred to the present Executive Engineer for report on the utility and the effects of embanking the Ponniar on the South Flank which were greatly objected to by Mr Larmine

bridge across the Geddelam River was spent for the purpose. A sum of Rs 12 being the balance of a contribution given by the same Municipality in 1885-86 for repairs to the Powder Magazine at Mungaccopaw, was utilized in refixing the lightning Conductor, according to the instructions contained in the report by the lightning rod conference.

23 P. W. Stores — Mr. A. Joyce Executive Engineer 3rd Grade who was appointed to the charge of the P. W. Stores and Workshops on Mr. O'Connell proceeding on furlough to Europe, Mr. Joyce assumed charge joined on the 9th March 1887 and at once entered on taking stock of the Stores. The whole of the articles were counted and weighed, thus completing the checking of the entire stock which was found correct and corresponded with the Ledger balances Mr. Joyce also examined the Machinery and

Lu: 1
PW. 4885/87

Name of Post &c.	No. of Letter	Remarks
11 Relocation of the Overhead Telegraph line from the Mungaccopaw Fort to Seringapatam via Kaveripatam for supply of certain articles for the Public works Department Salem		Mr. Survey of Lands taken.
12. Main Line from Salem to Trichinopoly		Survey of Lands for portion taken over Cauvery Channel - The Report with Plan & Estimate for sanction submitted.

Asst Superintending Engineer
for Executive Engineer.
Salem R.B.

and Plant in the custody of the Storekeeper of Machinery and found them correct. These Machinery belong chiefly to the Ordnance and Paper stamping Departments. An attempt was made to dispose of them, and several of the minor articles of stores appertaining to the Ordnance Department [have been] removed by that Department and the remainder consisting of Machinery principally have, under instructions from the Inspector General of Ordnance, been offered for sale. Tenders for their purchase [have been] invited in the Gazette. In regard to the paper stamping Machinery, the Superintendent of stamps has suggested that the sanction of Government should be obtained for their sale - and stated there is no probability of their being again required for use. The necessary further steps will be taken - When the Machinery

Machinery belonging to the Ordnance Department and the Paper stamping Department is sold, there will be no necessity for retaining the present establishment which costs Rs. 412 per mensem plus Rs. 20 for contingencies.

P. W. Stores.

The year opened with a balance of Stock on 1st April 96 was Rs. 2,04,057-5-0 and the receipts from all sources during the year amounted to Rs. 74990, which with the opening balance, made a total of Rs. 2,79,047-

During the year the following additions were made to the Stock by receipts from the undermentioned sources -

From London	38,945-1-5
" Civil Department	23,969-12-4
" P. W. Divisions	11,513-13-0
" Presidency Workshops	561-11-0
Total receipts including opening balance.	74990-5-9 / 2,79,047-10-9

The following issues were made during the year amounting to Rs. 67,869, and the balance on the 31st March 1897 was Rs 2,11,179, or Rs 7122 more than the opening balance

To P. W. Divisions	Rs. 38,353-11-2
" Presidency Workshops	" 28032-9-6
" Military Deptt.	" 26-4-0
" Railway (Ordnance)	" 360-8-11
" State Railways	" 166-0-0

To Private sales.	910-13-5
" Court of Wards.	18-13-10
Total issues -	67,868-12-10

The above may be summarized thus -

Opening balance on 1st April/85 -	2,04,057-5-0
Receipts during the year 1886/87.	74,990-5-9
Total -	2,79,047-10-9
Issued during the year 1886/87.	67,868-12-10
Remaining in stock on 1st April/87 -	2,11,178-13-11

being Rupees 7121-8-11 more than the opening balance.

It thus seems impossible to reduce the Stock balance to Rs. 1,50,000 as ordered. Unforeseen demands arise which increase the Stock and so long as surplus stores in other Divisions are returned into Store for final deposit, there will be no likelihood whatever of a reduction.

The Buckingham Canal route has been much availed of during the year in forwarding P. W. and Railway Stores. No crane has as yet been erected at the basin. One of the masonry platforms has been recently widened to admit of a 5 Ton crane being placed on it. The inconvenience to this Deptt. in loading boats with cases and packages weighing from 1 to 2 tons has been very great. The Assistant Port Officer, however placed a 2 ton Pier crane at the disposal of this Department whereby much of the difficulty was overcome and now that the platform is ready for the 2 ton crane will be returned for service on the Piers.

Port Store-keepers Deptt.

Much work continued to be done by the Port Store Keepers Department in receiving and despatching stores to both the Bellary Kistna & Cuddapah Nellore State Railways. The latter line has closed its receiving Depôt at Seppaguntapalliem so that all stores hereafter will be sent by Rail to Ramagunta. Bellary Kistna Railway however opened up a depôt at Chebrole where all stores for the Kistna branch will be sent to be forwarded to Guntoor.

8339

During the year 9646 tons of Railway materials and stores have been received viz from England 8339 tons were

From England Tons — 8339
" Calcutta (sundry) not known —
" Rangoon — (Sleepers) 1307 —

There were 43 consignments from England, 19 from Calcutta, 9 from Rangoon, making in all 71 consignments received and despatched. The value of the stores from England amounted to £ 78,922 — 0 — 9 that from Rangoon Rs. 35,974 — 2 — 0 and of sundries received from Calcutta — the value is not known.

24 P.W. Workshops

New forms of accounts were introduced for adoption in the Workshops from 1st April 1886 as per G. O. No. 858 W dated the 30th March 1886, and the Administrative Accounts of the shops will be reported to Government by the Examiner of P. W. Accounts.

Mr. O'Connell having applied for 18 months furlough to Europe from

or after the 7th of April 1887, and which was sanctioned by Government Mr. Joyce who succeeded Mr. O'Connell joined the Office on the 9th of March 1887 and took stock of the stores, the whole of the articles were counted and weighed and the checking of the whole stock completed by him.

Here as in the Stores Dept. Mr. Joyce on assuming charge, took Note of the workshop Stores,

The following additions were made to the Workshop's Machinery, by indents on the India Office.

2 Stocks with taps and dies to cut screws
1 Riveting Machine compound lever
1 Circular saw for cutting bob iron

The principal works done in the shops during the year were —

In the Mechanical Branch.

Iron and Wood works for 37 Falling shutters.
98 shutters with gearing complete — Wood and iron works for Sub Registrar's Offices at Chitvel and Koyalpaud (Cuddapah Dist.)
10 Iron & Wooden Cash Chests.
1 Copper still to hold 600 gallons
75 Cast iron Railings Posts and legs.
18 Iron filth carts (Crawleys) for Conservancy Dept.

6 Iron gram boilers (large) for Pogaroor Remount Depôt.

28 Wrought iron gates for Central Jail, Coimbatore

2300 Cast iron tt weights of sizes.

144 Iron casting for coffee pulpers

104 Galvanized iron buckets and tubes for Commiz.t Department.

60 Large copper scales.

7 Wrought iron plate girders. } For Consulting Architect to Govt. Nepaul.

62 Cast iron columns. }

8000 Cast iron jaws.

48 "Grainges" Pan copper scales.

27 Two maund cup scales.

50 Sets of brass Pound weights.

Teak scantlings, Doors, Windows, and wrought iron works for new Collector's Cutchery Cuddapah.

66 Teak Bed Balks } For Cuddapah Nellore State Railway

9 Large teak beams. }

3 Teakwood imposing tables for the Govt Press.

1 Teakwood sheet piling for the "Trivady (channel" (Tanjore District)

1 12 Horse ~~Iron~~ power engine and boiler of the Buckingham Canal Division repaired thoroughly.

1 10 Ton Crane (unserviceable) of the above Divn repaired thoroughly.

besides sundry other repairs to Cash Chests, Locks, and iron works Divn Wise during the year.

In the Instrument Branch.

107 Brass seals with wooden handles.

243 Brass badges of sorts

37 Silver badges for peons

88 Brass scales of sorts.

24 Copper gallon measures

50 Sets of brass Annular weights

8 Ceylon Chat Tracers with stands & staves.

41 } steel large } Property Hammers with wooden handles for the "Forest" Department.

2 Sets (from 1/2 to 800 tolas) of tola weights of brass.

598 Galvanized measuring chains repaired.

216 Steel prarches of sorts.

4000 Brass rings and links for measuring chains for Survey Department.

36 American Clocks of the Postal Department and General Hospital repaired.

85 Scientific Instruments repaired

∴ Besides

Besides repairs to Barometer,
Range Finders, Telescopes, Spirit levels,
Levelling staves, Stands of Theodolites
and Levelling instruments &c &c during
the year.

Henry Tudor Gibbs Coll R.E.

Supty: Engineer, V. Circle

25th June 1887.

PWC No. 4888

From

The Supt.g Engr
5th Circle

To

The Chief Engr
PWD

No. 1

Dated 25th
Dispd 27th June 1887
Rec.d 28

No. 1427.

Administration
Report for
Buildings and
Roads for 1886-87.

C.S.46.VII
M.25-7-87

C. 1-7-87 R. 25-7-87

C 365-3

Administration Report of the Superintending Engineer III Circle Buildings and Roads branch for the year 1886-87.

1. General Remarks

1. The original grant under Imperial Military for the Bellary Division was Rs 38341, the revised grant was Rs 38274 and the expenditure amounted to Rs 36679.

2. Under Imperial Civil Buildings the figures were

	Original grant	Revised grant	Outlay
Postal			
Bellary	4769	4520	2425
Cuddapah	881	881	773
Kurnool	100	100	19
	5750	5501	3217
Telegraph			
Bellary	200	200	256
Cuddapah	"	"	"
Kurnool	"	"	"
	200	200	256
	5950	5701	3483

3. Under provincial the figures were

	Original grant	revised grant	outlay
Bellary	58414	46390	48608
Buddapah	76787	72302	64441
Kurnool	34494	6021	6148
	169395	124713	112197

Causes of short outlay under Imperial and Provincial

Imperial

4. A sum of Rs 1916 lapsed out of the allotment given for the collar maker and wheelers' shop, the contractor having failed to utilize the allotment in full. Short outlay of Rs 2129 occurred on the Post office at Anantapur owing to suspension of work pending sanction to a Telegraph office which is proposed to be attached to the Post office.

Provincial

The allotment of Rs 2000 lapsed on the Sub magistrate's office at Singanapah owing to delay in measuring up the work.

The sum of Rs 7397 has remained unspent on the Collector's office at Buddapah; but it is expected that this sum will be adjusted in the Supplemental accounts on the

Contract System

receipt of bills from P.W. Workshops for materials supplied.

5. The contract system is generally in force.

Rates

6. The prices of labour and materials in the Buddapah Division have a tendency to rise in the larger towns; but they are fairly stationary.

In the Kurnool division also there is generally a tendency towards a rise in the rates owing to the progress of State Railway works in the neighbourhood.

Season

7. The season has been generally healthy in the Buddapah Division but small pox is prevalent.

In Bellary there was a decrease in the rain fall during the year the quantity registered being 11.82 inches against 24.32 in the previous year, while in Anantapur the rain fall was 27.65 inches against 15 registered in 1885-86.

In the Kurnool Division the

season on the whole was favourable.

8. An adequate stock of tools is available in the circle vide G.O. No. 2787 D dated 7th November 1884.

Reserve stock of Tools for Relief Works

9. Several estimates for relief works of simple character in parts of Anantapur and Bellary Districts are ready to be submitted for sanction in the event of necessity arising for relief operations.

Programme of Famine Relief Work

The Toongabudra Irrigation and Water Supply Project will prove a very useful work for employment of famine labour.

10. The books are up to date except the Kurnool Division where service books have to be opened for men recently employed.

Service Books

11. The frequent illness of subordinates in the Kurnool Sub Division has seriously interfered with the progress of works in the Sub Division. The extent of the Sub Division has been found to be much too large for one Sub Divisional Officer to supervise and arrangements made to transfer portion of works to the charges of the other Sub Divl Officer of the Kurnool

Interruption to progress of works.

supervise, and arrangements made to transfer portion of works to the charge of the Upper Sub Divisional officer of the Kurnool Canal.

Progress of Works

I Imperial - Military

12. The Double Apothecarys Quarters at Bellary was completed with the exception of painting to doors and windows. The estimate was exceeded owing to the reconstruction of old foundations and basement, to the provision of sill slabs over doors and windows not provided for in the original estimates; flooring with slabs; and substitution of new doors and windows for old ones rejected. The outlay amounted to Rs 6262 against the estimate of Rs 6222. A revised estimate has been submitted for sanction through the Military Authorities.

13. Stores and timber to the value of Rs 1084 were collected for the Collar Drake

and Wheelers shop at Bellary. Estimate Rs 5662. The Contractor who undertook to spend Rs 3000 on the work before the end of the official year failed to do so. The allotment was given at a late date.

14. The following minor works were carried out:-

The drainage system of the European Infantry Barracks was improved at a cost of Rs 1721. The Coffee shop of the Royal Artillery was perosfed with Mangalore Tiles at a cost of Rs 948 and a temporary forge and shoeing shed erected for the Royal Artillery at a cost of Rs 345.

II. Imperial Civil Buildings

15. The walls of the Post Office at Anantapur were raised 11 feet high and out-houses nearly finished, but the work is suspended pending sanction to a Telegraph office Room which is proposed to be attached to the Post Office. The expenditure amounts to

Cuddapah Division

Rs 1922 against the estimate of Rs 4051.

III. Provincial Civil Buildings

16. The construction of a Taluq Office at Koyalpaud is in fair progress. The expenditure amounted to Rs 9910 against the estimate of Rs 25700.

17. Collectors' Office at Cuddapah:- Foundation and basement to Printing Office finished and superstructure is in progress. Foundation to the main Buildings nearly completed. Estimate Rs 143741. Expenditure Rs 32,603. About Rs 7300 is expected to be adjusted in the supplemental accounts on account of P.W. Workshop Bills.

18. Of the sanctioned additions and alterations to the District Jail at Cuddapah, the female ward has been almost completed and the male ward No 1 completed except flooring and painting. The expenditure amounted to Rs 14741 against the estimate of Rs 31900

19. The number of works below Rs 2500 carried out during the year was 15 and

sea the outlay was Rs 6051.

8. 20. The second class Taluq office at
is Siruguppah was completed during
A the year; but final payment was
9. not made owing to delay on contractor's
wa part in rectifying defects in roof which
caused measurements to be postponed until too late.
of The expenditure up to date amounts
ar to Rs 12771 against the estimate of
t Rs 12680.

21. The collector's office at Anantapur is completed with the exception of stair case to Upper story, parapets 2nd coat plaster and wood oiling fitting Doors and ventilators; laying slabs to Upper verandah and substituting iron railing for masonry parapet walls. The progress of the work has not been quite satisfactory owing to the Contractors failure to make proper arrangements. The expenditure on the work amounts to Rs 49902 against the estimate of Rs 55,000

22. The Head Assistant Collector's office at Penukonda was completed

Bellary Division

and handed over. The expenditure amounted to Rs 16091 against the estimate of Rs 16682.

23. The second class Taluq office at Bukkapatam was completed and occupied during the year. The expenditure amounted to Rs 12,777 against the estimate of Rs 12,200

24. The old structure in the Collector's residence at Anantapur was removed; but nothing more could be done as no contractor came forward to take up the work; and it was not possible to arrange for the execution of the work departmentally within the short time left to close the official year. The expenditure on the work amounts to Rs 15997 against the estimate of Rs. 28190.

25. Improvements to the Collector's office Bellary. Walls of the rooms in east and west wings completed to a height of 8 ft above basement level and door and window frames fixed. The expenditure amounts to Rs 85-10

the out[illegible] estimate of Rs 47640.

20. The [illegible] undermentioned minor ere carried out:-

enlarging the Collectors Printing Office at Bellary; estimate 1745, outlay Rs 1719.

A Police Hospital was built at Hospett at a cost of Rs 653. A Sub Registrar's office was built at Hadgally for Rs 2353. A Sub Registrars office was built at Hospett at an outlay of Rs 267.

The Civil Cemetery at Bellary was pro- vided with a gate way and prising room at a cost of Rs 430. Out houses built for the Head Assistant Collectors Bungalow at a cost of Rs 460 and a strong room was built in the Taluq Office at Kudligee at a cost of Rs 603.

27. The Taluq Office at Nandyal is making slow progress owing to diffi- culty in procuring labor on account of extensive railway works. The expen- diture amounts to Rs 15662 against the estimate of Rs 34676.

Kurnool Division

[illegible] Divisional Officers -

Quarters at [illegible]nburn was co[illegible] on the revised estimate of Rs 47[illegible] expenditure amounts to Rs 4770.

A. Rogers Nobel Colt. R.E.
Superintending Engineer
3rd Circle

Supt.g Engineer's office
Bellary 9th May 1887

the out[illegible] [illegible]
20. [illegible]

III Circle

P.W.E. No-3653

The Supdg Engineer
III Circle Belgaum

To

The Chief Engineer
P. W. D.
Madras

Dated 9th May 1887.
Rec'd 12th do
No. 13.5.87

General Remarks Sent
to C. a. w. 14.5.87

Administration Report
of the
Superintending Engineer
III Circle
(Buildings & Roads branch)
for
1886-87.

467

2nd Circle

Statement showing the Grants and Outlay under Provincial, Local (Incorporated) and Local (Excluded) Funds for the Official year 1886-87.

Fund	Division	Civil Buildings				Communications				Miscellaneous Public Improvements				Total		Tools and 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	2,970	1,336	4,100	2,673	"	"	"	"	"	"	500	535	7,570	4,544	500	28
	Kistna Western	115	83	400	213	"	"	"	"	"	"	"	"	515	296	100	"
	Nellore	12,535	9,760	3,000	3,071	"	"	"	"	"	"	"	"	15,535	12,831	1,800	1,892
	Buckingham Canal	"	"	"	"	"	"	"	"	600	417	"	"	600	417	"	"
	Total	15,620	11,179	7,500	5,957	"	"	"	"	600	417	500	535	24,220	18,088	2,400	"
Incorporated Local	Kistna Eastern	"	"	"	"	7,788	4,098	40	39	"	"	"	"	7,828	4,137	"	"
	Kistna Western	"	"	"	"	"	"	1,000	937	"	120	"	"	1,000	1057	"	"
	Nellore	"	"	"	"	"	"	600	594	"	"	"	"	600	594	"	"
	Total	"	"	"	"	7,788	4,098	1,640	1,570	"	120	"	"	9,428	5,788	"	"
Excluded Local	Buckingham Canal	"	"	"	"	"	"	"	"	4,004	3,526	360	138	4,364	3,664	"	"
	Kistna Eastern	"	"	"	"	"	"	"	"	"	"	1,578	475	1,578	475	"	"
Total		"	"	"	"	"	"	"	"	4,004	3,526	1,938	613	5,942	4,139	"	"

Secy. Engineers Office 2d Circle
Bezwada 25th May 1887

J. A. Dixon.
Superintending Engineer 2d Circle

2nd Circle

Statement showing the grants and outlay under Imperial Funds for the Official year 1886-87.

Divisions	Military		Civil Buildings								Total		Remarks.
			Postal				Telegraph						
	Repairs		original Works		Repairs		original Works		Repairs				
	Grant	outlay	Grant	outlay	Grant	outlay	Grant	outlay	Grant	outlay	Grant	outlay	
Kistna Eastern	72	76	380	307	150	161	100	"	250	189	880	657	
Kistna Western	"	"	1,057	881	"	"	"	"	300	91	1,357	972	
Nellore	335	330	1,232	842	300	205	25	"	"	"	1,532	1047	
Buckingham Canal	"	"	"	"	"	"	"	"	"	"	"	"	
Total	407	406	2,669	2,030	450	366	100	-	550	280	3,769	2,676	

Supg. Engineer's Office 2d Circle
Bezvada 25th May 1887

Superintending Engineer 2d Circle

Administration Report

of the

Public Works Department, Madras

(General Buildings and Roads Branch)

for the Year 1886-87

I General Remarks

1 Grant and Outlay

The grant under Imperial Military Repairs was Rs. 407 and the expenditure Rs 406.

Under Imperial Civil Works, the grant was Rs. 3,769, while the expenditure was Rs. 2,676.

Under Provincial, the grant was Rs. 24,220, and the expenditure Rs. 18,088.

The grant under Incorporated Local Funds was Rs. 9,428, and the expenditure was Rs. 5,788.

Under Excluded Local, the grant was Rs. 5,942, and the expenditure Rs. 4139.

2 Divisional Changes

From the 1st March 1887, the Gudivada Temporary Division was abolished and ~

30-5-87.

constituted into a Sub Division of the Kistna Eastern Division, under the designation Gudivada Sub Division. Mr. W.C. de Morgan, the Executive Engineer who was in charge of the Division being placed in charge of the Sub Division. Mr. J. D. Grant Executive Engineer Kistna Eastern Division, who was transferred to the charge of the Buckingham Canal Division, was ultimately transferred to Burma, Mr. C. Vincent being placed in charge of the Division. Mr. G. D. Wybrow Executive Engineer Kistna Western Division was appointed Superintending Engineer and placed in charge of the 2nd Circle, Mr. S. D. Pears being placed in charge of that Division. The Sangam Project Division which was a permanent one, was also abolished from 1st March 1887 and constituted into a Sub Division of the Nellore Division and Captain C. B. Henderson, the Executive Engineer in charge of the latter Division was appointed as Acting Principal of the Civil Engineering College Madras.

3. Establishment Owing to the abolition of all Temporary Establishment from the end of February 1887, several of the Divisions in the Circle were left underhanded, and the works suffered in consequence, and the allotments remaining to be spent in March were not fully expended. The permanent Office Establishment of the Sangam Project Division was, according to the orders of the Chief Engineer, distributed between the Sangam and Gudivada Sub Divisions.

4. Service Books These have been reported to have been correctly maintained in the several Divisions. Those pertaining to the members of this Office have been correctly maintained.

5. Nellore Public Works Workshop

This institution continued to work satisfactorily, and the Outturn during the year was Rs. 13,660 against Rs. 11,567 in the preceding year.

6. Rates and prices These rose during the year owing to the competition of the Railway work both in the Nellore and Kistna Districts.

7. Inspection of Upland Taluks In February last, the Executive Engineer Kistna Western Division inspected General Conway's monument, and submitted a report. The Post Office at Venkonda was valued, and the District Munsiffs' Court at Karempudi inspected, and estimate for repairs submitted.

II Progress of Works

I Imperial Military Works

8. The grant under this head was only under Repairs, and was allotted for payment of house rent to the Military Apothecaries, in charge of the Hospitals at Ongole, in the Nellore District and Bezvada in the Kistna District. The grant amounting to Rs. 407 was fully spent.

II Imperial Civil Works

9. Nellore Division A sum of Rs 842 was spent on quarters for Postmaster at Gudur, (Estimate Rs. 1260) against a grant of Rs. 1232. The work has been almost completed. The Post Offices at Kavali, and Kristnapatam were repaired during the year and the repairs of that at Gudur could not be

II. Progress of Works.

I. Imperial Military Works.

8. The grant under this head was only under Repairs, and was allotted for payment of House rent to the Military Apothecaries, in charge of the Hospitals at Ongole in the Nellore District and Bezwada in the Kristna District. The grant amounting to ~~Rs~~ 407 was fully spent.

II. Imperial Civil Works.

9. Nellae division:- A sum of Rs 842 was spent on quarters for Postmaster at Gudur (Estimate Rs 1260) against a grant of Rs 1232. The work has been almost completed. The Post Office at Kavali, and Kristnapatam were repaired during the year and the repairs of that at Gudur could not be

commenced

commenced till the quarters for the Postmaster are finished

10. Kistna Eastern Division A well in the compound of the Bezvada Post Office was constructed during the year. The Estimate was Rs. 280 and the outlay to end of year was Rs. 307. Three-fourths of the work has been done and the Estimate requires revision. Owing to clay being met with, the well could not be sunk in the ordinary way and the well had to be baled as the work proceeded, and in consequence of this, the Estimate has been exceeded. Keepers were prepared for roofing the Bezvada Post Office. Repairs to the Telegraph Offices at Bezvada and Masulipatam have been executed to the extent necessary.

11. Rs. 110 have been expended for illumi-nations on the Queen's Jubilee day, against a grant of Rs. 500 and this expenditure was incurred only in the Kistna Eastern, and Western Divisions.

12 Kistna Western Division. Rs. 804 were ex-pended on the Duggirala Post Office, (Estimate Rs. 900) against an allotment of Rs. 757. The work has been completed.

13. Telegraph Office at Guntur was repaired during the year.

14. Buckingham Canal Division. There was no grant under this head in this Division.

III Provincial Civil Buildings

15. Kistna Eastern Division Constructing Residence and Office of the Superintending Engineer II Circle - Estimate Rs. 26,775 - Expenditure to end of year Rs. 27,961. Rs 401 were spent against a grant of Rs. 1,000 in raising the compound round the Superintending Engineer's residence &c. The work excepting latrine is completed.

Adding a room to the new Treasury in the Gudivada Taluk Office. An allotment of Rs. 1170 was given in March last for this work. Nothing was spent during the year, owing to late receipt of the allotment.

16. Head Constables and 10 Constables' huts at Bezvada - Estimate Rs. 4,538. Materials collected to the extent of Rs. 408 against a grant of Rs. 800. More could not be spent, owing to the land required not being available, as the Church Mission Society in whose School Compound, the huts were proposed to be built, refused to give up the land. The Superintendent of Police has now been requested to select another site.

17 Repairs to the Collectors' house, Saint Mary's Church, Eastern Division Office, Northern Sub Division Office have been carried out. The Estimate for the complete repairs of the Collectors' house has not yet been sanctioned. There was very little expenditure under "Tools and Plant". The amount not required should have been given up in time.

18. Kistna Western Division

Trees were planted in the compound of the Division Office. Rs. 83 were spent on their maintenance, against a grant of Rs. 115. There are now 445 trees of 26 kinds in this compound.

19. Slight repairs to the Division Office at Duggirala and the Jail buildings at Guntur were carried out.

20. Nellore Division

The following works were completed during the year.

1 Sub Registrar's Office at Gudur

2. Police huts at Kandukur

3. Extending Sawyer's shed, Nellore Workshops.

4 The Sub Registrars' Office at Addanki was in progress. The lapse is due partly to saving on Item 1, and the difficulty in getting cut-stone for Item 4

21. Under repairs, the following buildings were attended to.

1. Hill Bungalow at Ongole
2. Sub Collectors' —do—
3. Police Assistant Superintendents' Bungalow at Ongole.
4. Kodavalur Bungalow
5. Collectors' Bungalow, Nellore
6. Taluk Cutcherry and Sub Jail at Kandukur
7. Police Station house at Naidupett.
8. Deputy Tahsildar's Cutcherry and Sub Jail at Venkatagiri
9. Taluk Cutcherry at Atmakur
10. District Jail, Nellore

IV V Provincial Miscellaneous Pub. Imprts.

22. Buckingham Canal Division

An outlay of Rs. 417 was incurred on clearing trees on two Islands in the Adyar River against an Estimate of Rs. 995 and a grant of Rs. 600. The work is in progress

23. Kistna Eastern Division

The repairs to the Sea Dyke at Masulipatam have been attended to.

VI Local Incorporated

24. Kistna Eastern Division

Constructing Landing Stage at Bezwada Estimate Rs. 21,566. Expenditure Rs. 17,875.— Rs. 4,098 only of grant of Rs. 7,788 have been spent, owing to the scarcity of labor, and to the prevalence of Cholera, and partly to Railway competition. The retaining wall was nearly completed, and about one-third of the stone pitching to the bank has been carried out. It is hoped the work will be completed in September next. Bezwada Ferry road was maintained in good order

25. Kistna Western Division

The river and Canal banks used as roads have been maintained in proper order at an expenditure of Rs. 937 against a

grant of Rs. 1,000. Materials were collected for the construction of a Culvert under the good water Channel at Nizampatam (Estimate Rs. 900) during the year, the Local Fund Board agreeing to furnish funds. Owing to the late sanction, only a sum of Rs. 120 was spent. The necessary funds have not yet been placed at the disposal of this Department. The President Local Fund Board has been requested to have the balance of the Estimate placed at the disposal of this Department, through the proper Channel.

26. Nellore Division

The Penner Anicut has been gravelled during the year.

VII Local Excluded

27. Nellore District

The grant and Outlay under this head in the Buckingham Canal Division were Rs. 4,364 and 3,664 respectively. The following Minor Works were in progress.

(1) Alterations and Improvements to the Superintendents quarters at Armeghon Light house. Work nearly completed.

2. Constructing lines for Lascars attached to the Armeghon Light-House. Work nearly completed.

28. Chingleput District Constructing lines for Lascars attached to the Pulicat light house, in the Sydapet Circle belonging to the Buckingham Canal Division, has also been completed.

29. The following buildings have been kept in good repair.

Nellore Circle

1. Superintendents' quarters at the Armeghon Light-House.

2. Armeghon Light-House emergent repairs

Sydapet Circle

3 Pulicat Light-house ——— do ———

The damages which these Light-Houses received, during the late severe cyclone of November 1886 are being attended to.

30. Kistna Eastern Division

Clearing silt in the Salt Creek below Tidal Lock at Masulipatam as far as the village of Gilakaladindi. Owing to the allotment of funds so late in the

year, Rs. 475 only, against a grant of Rs. 1560 were spent.

Supg. Engineer's Office
2nd Circle Bezwada
25th May 1887

P. D. Swamy.
Superintending Engineer 2nd Circle

To The Chief Engineer
P. W. Department
Madras

P.W.C. No 4036

2nd Circle

R 30. 5: 87

Administration Report

of the

Public Works Department

(General Buildings & Roads Branch) Madras Presidency

for the year

1886-87

Sixth Circle

Administration Report

(General Buildings & Roads Branch)

for 1886-87

I General Remarks

1. The grant under Imperial Military was Rupees 10,906 and the expenditure amounted to Rs. 7,918. Under Imperial, Civil Works, the grant was Rs. 4,033 while the expenditure amounted to Rs. 3,511. Under Provincial the grant was Rs. 1,61,957 and expenditure Rs. 1,57,573.

2. Negapatam Harbour:— An Estimate amounting to Rs. 2,284 for filling in the boat basin and another amounting to Rs. 2,800 for diverting the Main Town Drain were submitted to the Chief Engineer with Superintending Engr's No. 247 T.J. 7-5-87.

3. Negapatam Drainage and water supply:— Under the orders conveyed in G.O. No. 3247 W dated 8th December 1886 the scheme for the Drainage and water supply of Negapatam is now being investigated under the direct orders of the Executive Engineer, Negapatam Division.

4. The St. Joseph's College buildings at Negapatam:— These were purchased at a cost of Rs. 30,032. The accommodation of the building has been portioned out for the several Public offices at Negapatam. The plan countersigned by all local Heads of Departments concerned was submitted to the Chief Engineer for approval on the 25th May 87. The Executive Engineer's office has been located in the buildings. The Government building which became vacant by the removal of this office, is now occupied by the Executive Engineer as his private residence on a rent of Rs. 35 which will eventually be raised to Rs. 51 per mensem. Vide G.O. No. 1201 W dt/2-5-87. The Tahsildar's Cutcherry is also located in the College buildings. Estimates for adapting the buildings for other offices are under preparation.

5. Construction of the Bridge across the River Vaigai, at Madura:— Estimate amounting to Rs. 246,600 was sanctioned in G.O. No. 358 W dt/9—2—86. The work which had previously been under the direct agency of the Local Fund Board, was entrusted to this Department for execution on the 19th October 86 and it was made into a Sub Div. of Madura, under G.O. No. 228 W dt/ 10th September 86. His Excellency the Viceroy and Governor General of India laid the foundation stone in the left abutment of the Bridge, at Madura, on the 8th December 86. Grant Rs. 27,143. outlay Rs. 27,171. When the work was taken over, the siding from the stone quarry to the Bridge was

was almost completely laid, and pumping, and mortar grinding machinery, had been procured. Work was not begun in earnest till the end of the Christmas holi-days, when the piers were commenced, and in the following three months, 6 piers and the flooring between them were raised to plinth level. The next four are in progress. Work was somewhat retarded by heavy rain on the 23d of March at a time when fine weather might have been reckoned on. Fortunately no actual damage to the work occured. Various minor changes in the design were found necessary, and as the rates originally allowed were not sufficient a revised estimate is under preparation, and will shortly be ready for submission.

6. Completion of the Road from Cumbum to the foot of the Ippidalier Peermade ghaut:— Estimate Rs. 90,507. A sum of Rs. 46,375 was expended to end of 1885-86 when the work was retransferred to this Department, the expenditure

expenditure in 1886-87 being Rupees 9,204 against an allotment of Rs. 9,785. Suruyan Bridge work nearly Completed. Kakuvodai Bridge almost completed. Vyravanaur Bridge:-South approaches partly raised and north approaches partially cut. High ground on the bridge site removed, chunam Concrete stones and rubble stones are under preparation.

7. Sirumal statue Palace Madura:- Estimate Rs. 331,985. Works in progress were on the undermentioned Estimates:-

(a) Restoration proper Rs. 1,01,500
(b) Locating Judge's Court Rs. 13,390
(c) Locating the Collectorate Rs. 44,640

of these the first has been fully worked out and an excess outlay of about Rs. 1,002 over the amount of the sanctioned estimate has been incurred during the year. This is within 5 per cent, and within the Sanctioning power of the Superintending Engineer:- Work on the 2d Estimate of Rs. 13,390 has been fully Completed, the amount of the Sanctioned Estimate has been exceeded by about

Rs.

Rs. 385. Work on the 3d Estimate was done to the extent of Rs. 22,104 the balance of the Estimate to be worked out is about Rs. 22,536.

The following is a brief statement of the work executed during the year:—

(a) Restoration work:— All works in the inside of Dome B. have been fully Completed, plastering of the east and South terrace of the lower Story and of the North East and a portion of the South exterior of the Palace has also been Completed. All the works in the South East Turret have been fully restored.

(b) Locating Judge's Court:— The work is fully Completed and the accounts closed.

(c) Locating Collector's office:— Wire netting over the eastern dwarf walls and to the windows in the west wall has been fixed. Nine record racks have been supplied for the English record room. The tiffin room for the Clerks with the exception of flooring, the walls and pillars of the stables and the foundation of European latrine have been done. Walls of the Collector's retiring room have been raised, all wood work under main building, the terrace, parapet walls and cornice of the main room completed. The original Budjet grant for the work for 1886-87 was Rs. 30,000; out of this, Rs. 2,000 were surrendered owing to the delay in getting possession of the site for European latrine and stables from the Municipality. The reduced grant of Rs. 28,000 was fully spent before the close of the year. The total outlay on the project to 31st March 87 amounted to Rs. 310,836.

8. Military Buildings at Puthur Trichinopoly:— In G.O. No. 776 dated 12th March 87 sanction was accorded for the transfer to the District Board,

Board, of the building known as "Sergeants Quarters", and for selling the following buildings to the best advantage -

(a) Barracks i.e place of arms.
(b) Guard room
(c) Native officer's room.
(d) School room (Guard room).
(e) Old guard room for officers and native officers.
(f) Armourer's shop (Work shop).
(g) Magazine. &
(h) Store room.

The Trichinopoly Municipality have applied for the transfer of the first named building (Barracks i.e place of arms) for converting it into a market. This question was reported to the Chief Engineer P. W. D. in Supg: Engineer's No. $\frac{81\ T.C}{18-5-87}$.

9. In their telegram dated 10th February /87 the Government sanctioned a grant of Rs. 500 for the illumination of principal Post and Telegraph offices in the Circle for the jubilee of

of Her Majesty the Queen Empress of India. Out of this grant only Rs. 305 have been spent.

10. Divisional changes and general reduction:— The Cauvery and Vennar Regulator Dn., and the Lower Coleroon Project Dn., were closed and the grand Anicut and its connected works were formed into a permanent sub Dn. of Tanjore. In Chief Engineer's No. 686c of 25-2-87, the Ramnad Dn. was converted into a sub Dn., and in G.O. No. $\frac{1078\ W}{18-4-87}$ it was re-constituted into a temporary Dn. In G.O. No. $\frac{W.\ 169}{x}$ W dated 20th January /87, the Survey & operations of the tank maintenance were ordered to be handed over to the Ex: Engineer Madura Dn. with records &c belonging to the Tank Dn. and they were taken over on the 1st March /87, and are being worked under the orders of the Executive Engineer. In G.O. No. 2762 W dated 20th October /86 the status of the Madura Dn. was temporarily raised

raised from the 3d to a 2d class Dn. In Compliance with the Chief Engineer's Ct. 91C dated 12th January 1887 the Services of all the temporary Establishments were dispensed with on the 28th February 1887. The Circle has, in Consequence, suffered great changes both in the Executive and office Establishments.

11. 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 in all the Dns, except Negapatam, where the Service Books of the Conservancy Establishment have not been fully written up; this is being attended to.

II Progress of Works.

I. Imperial. Military Works

12. Trichinopoly. The Construction of public buildings for a regiment of Native Infantry was Continued,

a

Sixth Circle.

Ramnad Division.

Administration Report for Buildings & Roads Branch for 1886-87.

Estate Works.

Civil Buildings

The following statement shows the outlay as compared with the grant.

Heads of Service.	Grant		Outlay
	Original	Revised	
Original Works.			
Ain —	1,000	3,000	1,655
Devastanum —	2,000	3,000	2,215
Chattram —	"	500	599
Repairs.			
Ain —	3,500	6,000	7,062
Devastanum —	4,000	6,000	5,599
Chattram —	2,500	4,500	5,568
	13,000	23,000	22,698

Original Works — The only major work in progress during the year was the

"Construction of an office for the Superintendent of Devastanams at Ramnad", the Estimate of which was revised during the year, the revision being rendered necessary by the substitution of Teakwood for Vengay wood, which was provided in the original estimate not being procurable; the expenditure on this work is Rs 2,115 against an Estimate of Rs 5,920. The Cause of short outlay is due to the slow progress made by the Contractor. Other minor works that have been Completed and are in progress are noted below.

1 Works Completed.

Fund	No	Name of Work.	Amount of Estimate	outlay	Remarks
Sir	1	Constructing a Summer House over the Terrace of the District Munsif's Court at Paramagudy	880	876	An inconsiderable work of last year.
	2	Constructing a tiled shed in front of the Salug butcherry at Ramnathy	195	190.	
	3.	Providing a Compound wall to the halting shed at Rajasingamangalam.	32	34	
	4	Constructing a Cross wall in the Manager's office at Ramnad.	66	62	
	5.	Constructing a shed for the Palace Elephant at Ramnad	200	187	
12 Devastanam		— Nil —			
Chattram	1	Reconstructing the Mullangi-nari's Chattram at Srivilly	573	599.	

2 works in progress.

Fund	No	Name of Work.	Amount of Estimate	outlay	Remarks
Sir.	1	Constructing a Granary at Ramnathy	1230	14	The short outlay is due to the materials collected for the work not having been paid for in consequence of their not having been brought to the site.
	2	Constructing a hall in front of the 4" widow's residence in the Palace at Ramnad	1370	428	Since Completed.
	3.	Constructing a Division butcherry at Sayalgudy.	440	143	
Devastanam	1.	Reconstructing the Pillayarcoil at Ramnathy	297	100	

Repairs. General of the requisitions received during the year for repair works under different Heads have been complied with. Out of the 43 works in progress during the year under all heads, 30 have been fully completed.

Kodaikanal
17: June 1887
Dy 20

Asst Engineer, Trichy.

P.W.C. No. 4688

From,

The Supt. Engineer
by Circle.

To,

The Chief Engineer
P. W. D
No. 78. R.M.

Dated 7th June 87
Rd 21.6.87

Ramnad Division

Administration
Report: Buildings
& Roads Branch,
for 1886-87.

II. Progress of Works.

I. Imperial Military Works.

12. Trichinopoly — The construction of public buildings for a Regiment of Native Infantry was continued, a ... &c. &c.

a Magazine, and cells having been under progress, the outlay was Rs. 1756 against a grant of Rs. 3593. Short outlay is owing to the failure on the part of the Contractor in procuring copper and other materials.

13. The Construction of Stone Drains for the new lines for which a grant of Rs. 1000 was given could not be commenced, the Estimate not having been sanctioned. The construction of these drains has since been ordered to be deferred.

14 A sum of Rs. 6162 was expended in repairing the Military Buildings at Trichinopoly and in paying Compensation for Quarters in the other Divns in the Circle.

II Imperial Civil Works.

15. Tanjore - Out of an allotment of Rs. 1,292, Rupees 1,079 were utilized. The chief item on which short outlay was incurred was the extention of

of Kumbakonam Post office. The work was practically completed but payment deferred pending inspection.

16 Trichinopoly - Slight improvements were carried out for the Post office at Teppacolum, and the Sub Post office at Trichinopoly at a cost of Rs. 45 and Rs. 30 respectively.

17. Madura - Construction of the Post office at Butlagundu. Out of the grant of Rs. 955, Rs. 920 have been spent. Work nearly completed.

18 An outlay of Rs. 109 was incurred in repairing the Post offices at Kovilur and Ammayanaickanur.

19. Timevelly - A sum of Rs. 16 was incurred in providing a Punkah to the Telegraph office at Tuticorin.

20. An Expenditure of Rs. 437 was incurred on repairing the

the Post office at Palamcottah and Srivaikuntham. The former has been completed and the latter is in progress.

21 Ramnad - The grant of Rs. 751 has been fully spent in completing the additions to the Post office building at Ramnad.

III Provincial

Civil Buildings

22. Trichinopoly - Constructing District jail at Trichinopoly - This work was ordered to be stopped in September 1886, but was resumed on receipt of G.O. No. $\frac{2888 \text{ W}}{3-11-86}$. The enclosure wall has been completed, timber for roofing put on for association - Ward 5 B which still requires plastering and flooring. Walls raised to full height for cells No. 8, and foundations for No. 6 cells. The expenditure has been Rupees 11,131 against a grant of Rs. 11,500.

23 Sub Registrar's

23. Sub Registrar's office at Manaparai - Estimate Rupees 2090. Outlay Rs. 2152. Work Completed.

24 The following repairs were carried out - Re-roofing block etc. / Central jail - The repairs were nearly completed and a sum of Rs. 2586 spent.

25. The repairs to the District Munsiff's Court at Ariyalur was Completed at a cost of Rs. 490.

26. Jaujore - The Construction of the District Jail without houses was Completed. Estimate Rs. 2,11,100. Outlay Rupees 2,02,771.

27. Police Station house at Jaujore was Completed and made over. Estimate Rs. 6740. Expenditure Rs. 7113. The excess outlay due to payment of Compensation for land not provided for in the Estimate.

28. Constructing a Combined Court house for the District Munsiff's of Kumbakonam and Valangiman was in fair progress. Brick work up to the basement level was completed. Doors, Windows and wood work to Terrace were prepared. Estimate Rs. 34,342. Expenditure Rs. 7607.

29. Constructing a first class Jail & Cutchery at Kumbakonam. As the latrine provided for this Cutchery is to be used also by the Munsiff's Court now in course of Construction the work was commenced simultaneously. The walls were raised to 6½ feet high. Short outlay due to late appropriation of funds. Estimates Rs. 19,240. Expenditure Rs. 249.

30. The Compound mud-walls of the Warders huts attached to the District jail, which suffered damage when exposed to the South West monsoon had to be rebuilt more substantially at a cost of Rs. 1255. against an Estimate of Rs. 1420-

31. The work of extending the Police Station house at Kumbakonam was

was resumed late in February — when funds were allotted. Walls were raised to 7 feet high and wood work for the roof prepared. Endeavours were made to utilize as much of the grant as was possible. Estimate Rs. 2700, outlay Rs. 1141.

32. The work in connection with the Police Station at Konad in the Mayaveram Taluq was resumed and pushed on to completion. Estimate Rs. 1130. Expenditure Rs. 1102.

33. Altering the portion of the old Taluq Cutcherry for the accommodation of the Sub Registrar's office at Trivalur was completed. Estimate Rs. 1120. outlay Rs. 1225.

34. Constructing 6 huts for the Land Custom Police at Nalladay. Estimate Rs. 1,950. Expenditure for land compensation Rs. 141. Work in abeyance.

35 The principal buildings repaired

repaired were:—

(1) Providing lightning conductor to the District Court Tanjore completed. Estimate Rs. 1127.

(2) Taluq Cutchery at Shealy in progress Estimate Rs. 1240.

36. Negapatam — Government cemetry at Negapatam — Extension. Estimate Rs. 1,200

The outlay was Rs. 459 against an allotment of Rs. 1,200. The short outlay was caused by the slow execution of the work, on the part of the contractor, due to want of materials.

37. The Compound of the Executive Engineer's office at Kadambady was metalled at a cost of Rs. 147.

38. Rs. 1073 was paid as Compensation for the land taken over for the District Munsiffs' Court at Trivalur.

39. Under Repairs

(1) The portion of St. Joseph's college buildings where the Tahsildar holds his

this office were repaired at a cost of Rs. 1132-

(2) Sub Registrar's office at Tiruturaipundi was repaired at a cost of Rs. 86. Other Sundry repairs to the extent of Rs. 196.

40. Madura - Sub Magistrate's Cutcherry at Madura - Estimate Rs. 17,889. Allotment Rs. 9889. A sum of Rs. 5,000 was expended up to end of 1885-86 and Rs. 9889 in 1886-87. The whole of the jail building, Staircase room of the lower story, the Verandah of the cook room, the wooden railing over the jail Building in the Upper Story and the wooden staircase have been Completed. Work is in fair progress, and will be Completed soon.

41. Constructing a 2d class Police Station House at Saptur. Estimate Rs. 4,850. Allotment Rs. 2,350, outlay Rs. 2,056 in 1886-87. Nearly the full quantity of materials required have been collected. foundations are being excavated. The site was handed over to this Department only in February 1887, hence it was not possible to utilize the allotment fully.

42. Constructing Sub Registrar's office at Tirumangalam - Estimate Rs. 2,864. Allotment Rs. 950, Given only in February has been fully expended. About 2/3 ?/ of the required materials have been collected.

43 Constructing Dy: Tahsildar's Cutcherry at Vedasandur - Estimate Rs. 11,828. Allotment Rs. 702. A sum of Rs. 11,498 was expended up to end of 85-86 Rs. 702 in 86-87. Work Completed and Completion report sent in.

44 Constructing Dy: Tahsildar's Cutcherry at Vellacottah - Estimate Rs. 11,828. A sum of Rs. 11,797 was expended up to end of 85-86, and Rs. 522 in 86-87. Work has been Completed and Completion Report sent in.

45. Constructing Dy: Tahsildar's Cutcherry at Ettayapuram - Estimate Rs.

Rs. 11993. A sum of Rs. 12,003 was expended up to end of 85-86, and Rs. 544 in 86-87. The work was completed and Completion Report submitted.

46. Constructing Sub Registrar's office at Vailampatti - Estimate Rs. 2580. A sum of Rs. 2592 was expended up to end of 85-86, and Rs. 19 in 86-87. Work was completed and completion Report sent in.

47. Improving the Dy: Tahsildar's Cutchery at Tiruchuly - Estimate Rs. 3785. Allotment Rs. 1,000, given only in February, has been fully expended. More than half of the required materials have been collected.

48. Constructing a 2d class Police station house & one head and five Constables huts at Ammainaickanur. Estimate Rs. 3850. Allotment Rs. 1,200, out of which Rs. 570 only was expended as the grant was given in the middle of February 87. Work was commenced in March 87. The required quantity of rough stone, and of Teak and jungle wood have been collected, and four Iron doors made.

49. Allotment under Minor Original works Rs. 1345. Expenditure Rs. 1217; of this, Rs. 1055 was expended in Constructing a 2d. class Police Station House at Dyalur, and Rs. 161 on securing the Treasury room of the Taluq Cutchery at Tirumungalum; and these two works have been nearly completed.

Repairs

50. Allotment Rs. 1,800 expenditure Rs. 2188. This amount was utilized chiefly in repairing the Sub Collector's Bungalow, Taluq Cutchery, and P. W. Office at Dindigal, maintaining the Garden in Tirumal Naicker's Palace at Madura, and fixing lightning Conductors in the Palace at Madura. The excess is due to the write back entry of the expenditure incurred on maintaining the Garden in Tirumal Naicker's Palace from "Original works" to "Repairs," the Estimate having been sanctioned

sanctioned under the latter head, and to the expenditure incurred urgently in repairing the Sub-Collector's Bungalow at Dindigal.

Finally—

51. District Court House at Kokarakulam—Constructing a new Record Room to, and improving the:—

Estimate Rs. 17,875. Allotment Rs. 10,000, a sum of Rs. 2228 was spent in 1885-86, and Rs. 9,955 in 1886-87.

The New Record Room was completed and finally paid for, and the building was handed over to the Judicial Department. Four Verandahs round the main building were completed and Materials were collected for the further improvements required.

52 Registrar's office at Kokarakulam—Constructing a:—

Estimate Rs. 4,380.
Allotment Rs. 3,747.

a sum of Rs. 600 was expended in 1885-86, and Rupees 3668 in 1886-87. The work was completed, and the building has been handed over to the Registration Department.

53. Sub Registrar's office at Srivilliputtur—Constructing a:—

Estimate Rs. 2,705.
Allotment Rs. 2,340.

a sum of Rs. 364 up to 1885-86, and Rs. 2,274 in 1886-87 was expended,—Work was completed, and the building handed over to the Registration Department.

54 Sub jail at Sankarankoil—Building a compound wall to the:—

Estimate Rs. 4,312
Allotment Rs. 412.

A sum of Rs. 3,415 was expended up to 1885-86, and Rs. 402 in 1886-87. Work completed, and Completion Report sent.

55 The following Minor Original works were carried out, or were in progress:—

progress:—

(1) Sub Registrar's office at Vattirayirupu. Estimate Rs. 2200. Grant Rs. 2200. Expenditure 2142.

(2) Sub Registrar's office at Sattankulam.

Estimate Rs. 2080.
Grant Rs. 2080.
Expenditure Rs. 2014.

(3) Police Station House at Singhikulam — Constructing a 3rd class:—

Estimate Rs. 1137-
Grant Rs. 1137-
Expenditure Rs. 1104.

(4) District Jail at Palamcottah.

Drainage work for:—

Estimate Rs. 370.
Expenditure Rs. 368.

Repairs

56. The Expenditure under this head was incurred in repairing the Head Assistant Collector's Bungalow, and the D. P. W. Sub Div. Officer's Bungalow at Shermadevi; the Sub Collector's Bungalow at Tuticorin; and some other Petty works.

Ramnad.

57. The Expenditure during the year on work of converting the Police Hospital at Ramnad into a residence for the Assistant Superintendent of Police was Rs. 3,152 against the grant of Rupees 3,239. Work has been fully completed.

V. Provincial. Miscellaneous Public Improvements.

Tanjore

58. Constructing a Masonry wall on the South side of the Cauvery river for the protection of the town of Kumbakonum. Estimate Rs. 2,330. Outlay during 1885-86. Rs. 2,013. Total outlay to end of the year Rs. 2,257. Work completed, and made over to the Municipality.

VI. Local Incorporated

59. 109 Miles in Tanjore, 42½ Miles in Negapatam, and 20 Miles in Trichinopoly

Trichinopoly Divn., have been maintained at an outlay of Rs. 5,987,-
37-20 and 646 respectively.

VII - Local Excluded

60. Ramnad - Repairing the Post Officer's Bungalow at Pamnbenn has been completed at an outlay of Rs. 921 against a grant of Rs. 934.

Tinnevelly

61. Out of the grant of Rs. 42 for forming a new earth plate to lightning Conductor attached to the light house on Kare Island at Tuticorin only Rs. 7 have been spent.

62. A grant of Rupees 230 was sanctioned for repairing the Light House Superintendent's Quarters at Kuttum, and this has been completed at an outlay of Rs. 228.

Lt Col R.E.

Hodaikanal
3rd June 1887
D H/-
Compd
H.L

3 3 Supg: Engineer VI Circle

Rec'd 4295

From The Supg. Engineer
VI^th Circle

To.

The Chief Engineer
P. W. D.

No. 71c

Dated 3rd
Desp'd 4th } June 1887.
Rec'd

Administration Report
of the Sixth Circle
(General Buildings and
Roads Branch) for
the year 1886-87.

A Circular

Comparative Statement Showing the grant and outlay under all heads of Service for the Official years 1885-86, & 1886-87

Heads of Service		1885-86		1886-87	
		Grant	Outlay	Grant	Outlay
Provincial					
Civil Buildings	Original works	161,496	168,391	215,856	192,048
	Repairs	25,031	26,444	33,376	29,865
Communications	Original works	100,030	99,271	189,034	181,562
	Repairs	39,107	39,293	49,360	48,821
Mis: Public Impts	Original works	76,676	75,561	146,030	128,358
	Repairs	2,250	1,708	1,915	1,577
Imperial					
Military	Original works	70,805	67,202	51,533	43,529
	Repairs	43,713	40,720	65,497	63,390
Other Services	Original works	631	786	2,206	2,267
	Repairs	2,050	1,770	2,250	2,152
Carried over		521,789	521,146	757,057	693,569

	Grant	Outlay	Grant	Outlay.
Excluded Local	5,21,789	5,21,146	7,57,057	693,569
Mis: Public Impts Original works	"	"	1,426	550
Repairs	"	"	"	"
Estate Works under the Administration of Court of Wards	465	465	615	414
Total	5,22,254	5,21,611	7,59,098	694,533

Supg. Engineer's office IV Circle.
Coimbatore 30th May 1887

F. Beatty - Colonel R.E.
Superintending Engineer
IV Circle.

No: 2
PW 4529/87

Administration Report.

of the

Public Works Department

General Buildings & Roads Branch

Fourth Circle

Madras Presidency

for the year

1886-87.

I General Remarks.

1. The original grant under Imperial, Military, was Rs. 116,078; the revised estimate was Rs. 117,030, and the expenditure amounted to Rs. 106,919.

Under Imperial, Civil works, the original grant was Rs 3,610 and the revised estimate was Rs. 4,456, while the expenditure amounted to Rs. 4,419.

Under Provincial, the

figures

figures were — original grant Rs. 502,707, revised estimate Rs. 635,571, and expenditure Rupees 581,937.

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2 Mangalore Harbour

An approximate estimate amounting to Rs. 150,000 for improvements to the Harbour was submitted last year, but sanction was deferred pending a report on the effects of the last Monsoon on the harbour. This information was furnished to the Chief Engineer, P. W. Department with this office No. 161. E.W. of 30th March 87.

3. Cruz Milagre dam.

The only work carried out during the year in connection with this dam was dropping stones along the toe of the existing revetment on the backwater side and raising the revetment on the lagoon side to a uniform level at a cost of Rs. 186.

4. Wynaud Communications.

(1). Vayitri Calicut Road. — The collection of metal in the 12th, 16th and 17th miles has been nearly completed and a good part of that required in the 11th, 18th, 19th, 20th and 21st miles; the opening of all catch drains is nearly finished. Many sites of tunnels have been marked out, some are now in progress, and materials are being collected at the site of others.

Provision was made for tunnels in the estimate at about one per furlong; they are being constructed at sites specially selected where required to discharge water and prevent it from flooding the road.

The iron work for all the bridges on the road has been received from England and that for the Kodangam Poya Bridge carted to site.

Excavations for the pier foundations

foundations was carried out and the right abutment foundations began. The stone procurable at the site was found to be quite unsuited to rough stone work and in consequence it has been decided to build the piers of a casing of dressed stone with a heart of concrete. The abutment will be of laterite with cut stone groins. This is the only bridge that has been commenced.

The existing wooden bridges were all in fair order, some having been lately repaired, so that this one which was in a dangerous condition was commenced first. For fitting up the iron work of this and other bridges the services of specially qualified Superintendent have been secured.

Kodangam Pa'pa Bridge

About three fourths of the Tamracherri ghat has been finished and the remainder is in good progress.

Nearly all the tunnels on the ghat are finished. The great land slips, that occurred during July and August 1886, caused much extra work in special repairs, but all removable matter has been taken away, and all dangerous trees cut down. Strong and well built pevetments have been made to support the road.

From top of the ghat to Vayitri about a mile of metal has been collected and four tunnels built. In the 37th mile a large pevetment has been finished.

The particulars of repairs to the Calicut Vayitri Road carried out during the year under review were as follow:-

123,386 Cft of gravel were collected departmentally.

169,596 Cft consolidated.

176,306 Cft. metal collected

165,458 —"— do— consolidated

449,220 cft earthwork.
195,424 Syds jungle cleared.
177,847 Sq ft. of old gravel petamped.

The old timber and masonry bridges on the road were also repaired at a cost of Rupees 1,070.

The usual mile coolies for filling up ruts and executing petty repairs were maintained at a cost of Rs. 974.

The tools shed at Pudupaddy was repaired, the expenditure in-curred being Rs. 42.

The grant for improving and repairing the Calicut Vayitri Road was Rupees 129,495 of which Rs. 113,094 were spent on improvements including the cost of iron work received from England and Rs 17,159 on maintenance besides an outlay of Rs. 5,197 against the grant of Rs 5,590 on account of special re-pairs in removing land slips referred to above.

(2). Vayitri Gudalur Road.

A large quantity of stone and other material was collected at site for constructing the new Choladi bridge and the iron work was received from England and the masonry commenced. For the Choladi bridge Rs. 12,425 were expended including cost of iron work against the grant of Rupees 16,991.

5. West Coast Canal.

Estimates with survey, Sections and plans for improv-ing the Canal between Cochin and Tirur was submitted and are awaiting sanction. Some information regarding the earth work has just been called for by the Chief Engineer for Irrigation which will be fur-nished shortly.

The section of the Canal from Beypore to Badagara had

had been surveyed for about 3 miles when operations had to be stopped as the services of the subordinate employed on the work were dispensed with owing to the reduction of establishment in February 1887.

6. Ootacamund Gudalur Road was completed during the year with the exception of some revet-ments and parapets; it is now in excellent order.

7. The Ooty-Kullarghat was maintained in good order in spite of heavy traffic and rainfall, which makes the maintenance of this portion specially difficult.

8. A new road down Mount-Stuart from Messrs Oakes & Co's premises to the market has been made to a gradient of 1 in 20 and has been found a great convenience by the residents of Ootacamund.

9. Cart ghat road to Yerkad Sheveroy Hills.

The survey and sections of the trace were completed during the year and an estimate amounting to Rs. 244,200 submitted for sanction with this office No. 166 dy 5th April 1887.

10. The Adam Memorial Fountain, has been erected and will have water laid on to it as soon as the water sup-ply scheme now under construc-tion is carried out.

11. The New building for the Breeks Memorial School situated on Mount Stuart, fa-cing Charing cross was making good progress at the close of the year and will probably be rea-dy for occupation by August.

12. The greater part of the land on the margin of the Ooty-

Potacammud Lake, has been acquired by Government and was being fenced in at the close of the year. Outlay was also incurred in improving its general appearance by clearing wattle and scrub jungle.

13. The Protestant Church at Wellington was completed within the amount of the revised estimate, with the exception of the interior decorations and fittings, which remain to be supplied by private subscriptions, as the simple furniture that was used while service was held in a barrack room is not now considered sufficient. Divine service was held in the Church for the first time early in March. It will be consecrated on May 11th.

14. The Wellington Bakery was finished with the exception of the Mill race and Machinery which latter has not yet all arrived from England; and the building has been in use from March 1st for backing purposes with satisfactory results.

A number of additions to the Bakery required by the Commissariat Department necessitated a supplemental estimate.

15. Government Brickfield;- Bricks have been manufactured during the year at a total cost of Rs. 8768 or Rupees 25-9-0 per 1000. They have been charged to works at an average rate of Rs. 27-0-0 per 1000, which shows a reduction of Rs. 1-0-3 per 1000 as compared with 1885-86. The rate is still abnormally high and a comparison is now being made between the rates in

in vogue in Madras and at Wellington with a view to further reduction. Various experiments has been made with mixtures of different earths to be found in the brickfield but none have resulted very satisfactorily. The question of the transfer of the Brick field elsewhere is now being investi-gated.

16. Light Houses.

The Light houses on the West coast were inspected during the year by the Superintending Engineer and estimates were sanctioned for improving the lightning Conductor to the Light House at Cochin, and providing new conductors to those at Tellicherry, Mangalore and Calicut. The first two works were completed at a cost of Rs 132 and 168 respectively.

For the Mangalore Light House, owing to the non receipt of copper rod, a sum of Rs: 32 only was spent and the work could not be completed.

17. Ootacamund North Water Supply. A good start has been made with the improvement of the Ootacamund North Water Supply. The service Reservoir and duct for conveying water from Snowdon to Marlimund were nearly completed; as also the improvements to the Snowdon supply channels and the close of the year saw the pipes, whose arrival had been seriously delayed by the breakdown of the steamer conveying them, coming in daily. The work of laying the pipes will commence at once and will probably be completed

completed and the system in working order by Christmas.

18. Accidents.

With the exception of one serious slip on the Ootacamund Kullar road (22nd mile) in November which delayed the traffic for 12 hours, several minor slips on this and the Gudalur ghat, and the breaking down of the S. S. "Sunbeam" conveying the water supply pipes, which resulted in nothing further than delay and inconvenience in accounts, there have been no accidents during the year.

19. Labor and Materials.

These are both scarce and dear on the Hills, a fact which increases the cost and difficulty of all works. Some reduction has been made in the rates in Nilgiris for labor during the year, and as much work as possible has been given out on contract with fairly satisfactory results. The great want in this respect on the Nilgiris is a contractor with sufficient capital to keep large stocks of materials always on hand.

20. Divisional changes.

The B. Project Division was abolished on the 15th July 1886 under the orders given in G. O. No. 1635 W. dated 28th June 1886. Owing to the assignment of a reduced grant for Public Works Establishment for 1887-88, it was ordered by Government in their order No. 169 W. of 20th January 1887, that No. IV Tank Division should be abolished and that the records office furniture &c appertaining to it should be handed over to

to the Coimbatore Division; this was accordingly done at the end of February 1887 and the services of the Survey establishment of the Tank maintenance operations were placed at the disposal of the Coimbatore Division officer for work in the Coimbatore District. Temporary Establishment of all ranks was done away with in February 1887.

21. Service Books.

The orders with respect to the due and correct maintenance of the service Books seem to have been carefully attended to in all the Divisions in the Circle.

$\frac{N^{o}\ 251}{E.W.}$

List of works noticed in the administration Report of the 4th Circle General Buildings and Roads branch for the official year 1886-87.

Name of Work.	Amount of Estimate	Grant for 1886-87	Outlay in 1886-87	Paragraphs in the report
Imperial Military				
Bakery at Wellington	35,850	6376	6000	14, 24
Hospital accommodation for women and Children at Wellington	3,036	3,036	2,909	25
Constg Quarters for a Barrack Sergt at Wellington	7348	5000	3,213	26
Improvements to a portion of the Laurence asylum Ootacamund	2760	2000	2191	27
Impg Hospital dormitories and converting Latrines into Sx of the Laurence asylum	3,030	2,889	2404	27

Constg: Barracks at mala-puram	13509/4	8315	7,691	29
Do Regimental Store-room at Quilon	9334	7000	6653	31
Fixing lightning Con-ductor to the Magazine at Quilon	3,880	3880	3210	32

21. Provincial

Civil Buildings

Government House with all subsidiary buildings at Ootacamund	7/9150	4300	3866	51
Protestant Church at Wellington	47,810	9574	9574	13, 52
Constg: an exercise yard for European Convicts in the Ootacamund Jail	5,790	4472	4472	54
Constg: Bench Magistrate's Court at Kotagiri	8060	7000	5,442	53
Conversion of Rows Bunga-low at Devala into a Police Station	9170	5170	5168	55
Breeks Memorial School Ootacamund	38180	2,000	20149	11. 57
Improvements to the Exe-cutive Engineers' Office Ootacamund	3,175	3175	2879	56
Improvements to Crewe hall Bungalow at Ootacamund	3460	3460	3275	56
Constg: a 2nd class Police Station at Naduvatam	4,110	1,000	955	59
Do Roman Catholic Church at Wellington	30526	7000	7000	58

Constg: Museum, at Ootacamund	6,410	1,000	999	60
Do Law Courts at Calicut	1,04,570	25,075	24,423	67
Do Public offices at Ponani	74521	20,000	19,996	68
Do Residence for the Head Assistant Collector at Coondapore	17,000	9,235	8915	73
Do A residence for Assistant Supt. of Police Malapuram	13,660	7234	7222	70
Do Sub-registrar's office Chevayur	3020	1400	1400	71
Improvements to the District Munsiffs' Court Betatnad	4295	2,000	2000	72
Do to the Police Supt.s office Mangalore	9,200	3,000	3000	74
Constg Sub-registrar's office at Puthur	3120	1000	1000	75
Constg: Sub-registrar's office at Adipi	3,370	1200	1200	75
Collector's cutchery at Calicut	"	10,000	"	76
Government Church at Cochin	20,680	15,000	14,616	69
Constg: close prison at Coimbatore	19,582	2880	1534	48
Improvements to the Central Jail at Coimbatore	5745	5005	4474	48
Constg: a new room for the Awzur treasury at Salem	2870	2,870	2,876	47
Additions and alterations to the 2rs of the Supt. Central Jail Salem	3,600	3,579	2,589	47
Constg: 2rs for the Dy. Jailor attached to the Central Jail Salem	3,660	3,478	2713	47

Rebuilding a portion of the District Munsiff's Courthouse at Namakal	3595	2,500	2514	47
Residence for the Asst. Superintendent of Police Tripatur	4768	768	763	47
Communications				
Improvements to the Road from Ooty to Gudalur	220,000	13,400	13,458	6.83
Constg: a Rest House in the 9th mile below Coonoor	7010	5,978	5,979	84
Reconstg: wooden platform Bridge at Barliar on the Coonoor Ghat	4940	4940	3044	7
Constg: a Road on Mount Stuart Ootacamund	10855	10,000	8427	86
Improving the road from Calicut to Vayitri	319,788	129,495	130,253	4
Do from Vayitri to Gudalur (Sholadi Bridge)	410,000	1691	12425	4
Miscellaneous Public Imprts				
Completing the revetment for the protection of the town of Ponani	4280	4280	3295	94
Adam Memorial Fountain at Ooty	16850	4080	1827	10-90
Improving the margin of Ooty Lake	8170	1723	1720	12, 89
Water Supply Project at Ootacamund	170,000	110,000	110,085	17.88

Provincial				
Irrigation				
West Coast Canal				
Taking levels and soundings and fixing bench mark Stones in the West Coast Canal from Badagara to Cochin Territory.	3500	2880		5

Coimbatore
3d June 1887.

R. Beatty Colonel R.E.
Superintending Engineer
4th Circle

at Pathur

Mdle 4246

From

Colonel J Beatty R.E.
Supy: Engineer
4th Circle.

Dated
Received } June 1887.

No. 237
E.W.

List of works noticed in the administration Report of the 4th Circle General Buildings and Roads branch for the Official year 1886-87

II Progress of works.

I Imperial - Military works.

22. - Coimbatore - The following minor original works were completed:-

(1). Constructing 2 cisterns to hold water for fire engines at the Remount Depôt Mattgiri Estimate Rupees ——— 1330

(2). Fixing a weigh bridge and constructing a shed over it in the Stud lines at — do — do — 172

(3). Improving the Sepoys lines at — Do. — Do. — 230

(4). Improving the Rest-house at Podanore ——— 190

The construction of a well on the site of the new camping ground at Collarpet was begun. The works of adding a linen room and verandah to the Hospital and Improvements to the Hay shed attached

attached to the Farm stables at the Remount Depot at Matigiri were nearly completed.

23. Repairs to the Military Buildings at the Remount Depot at Matigiri and to the Rest houses at Podanore and Mettupolliem were carried out at an outlay of Rs 5,660.

24. Nilgiris. The Bakery at Wellington, estimate Rs. 35,850, expenditure Rs. 30,074, was completed, with the exception of the dam, mill race and machinery of which the latter has not yet all arrived from England.

25. Two Lying-in-wards were added to the station Hospital at Wellington at a cost of Rs 2,909 (Estimate Rs. 3036).

26. Quarters for a Barrack Sergeant at Wellington were commenced in February and half

half built. Estimate Rs. 7348 Expenditure Rupees 3,213.

27. Important improvements to the buildings at the Lawrence Asylum were finished at a cost of Rs 4,595 on estimates amounting to Rs 5,790. Further payments have still to be made.

28. The Lawrence Asylum and the Military Buildings at Wellington were kept in a state of thorough repair at a cost of Rs. 2,389 and Rs 7,040 respectively and the special repairs to the roof of the former buildings cost Rupees 6,223 to complete.

29. — West Coast — The entire project of accommodating troops at Malapuram has been fully completed according to the revised estimates. The buildings finished and occupied during the year were: —

(1). Block No 2 with out houses.
(2). Ward for contageous diseases
(3). All the covered passages.
(4). The drains
(5). Converting the wood godown into Bakery.
(6). Cattle and sheep pen.

The Hospital Well is nearly completed and would have been fully so, but for the delay in getting skilled labor for blasting granite rock which was met with.

The allotment for several works in connection with the barracks was Rs 8,315, of which Rs 7691 were expended, bringing the total expenditure at the end of the year amounting Rs 122,672 against the estimate of Rs: 135,802. Out of the unspent balance Rs 13,130, only Rs 700 are required to complete the works; hence the saving on the estimate will be Rupees 12,430.

30. Improvements to the Elephant Shed at Malapuram for which an estimate of Rs 2061 was sanctioned, were in progress and the expenditure in the year amounted to Rs. 810.

31. A store room for the Madras Infantry Regiment stationed at Quilon was almost completed. The work was commenced in October 1886 and Rupees 66 53 expended against an estimate of Rupees 9,334. It is expected that a considerable saving will be effected on this work.

32. The ~~bomb~~ proof roof of the Military Magazine at Quilon was covered with an additional tiled roof to prevent the leakage frequently complained of. The lightning conductor of the magazine was also thoroughly renewed with fresh earth connection, the aggre-

-gate

aggregate cost of the two works amounting to Rs 3,210, against an estimate of Rs. 3,880.

33. The old Jailor's quarters at Calicut were improved to fit them for the accommodation of the Sergeant Instructor attached to the Malabar Volunteer Rifles. Estimate Rs. 1200, outlay Rs. 1076.

34. 5 Family quarters of No. 2 Block of West Hill Barracks at Calicut were adapted for quarters for the Commissariat Sergeant and store room. Estimate Rs 650. Outlay Rs. 599.

35. The lightning Conductors on the Magazine at West Hill Barracks were renewed at an outlay of Rs 590 against the Estimate of Rs. 730.

36. The deepening of the well in the Cholera Camp Compound at Malapuram was in progress. Outlay Rs. 200. Estimate Rs. 400.

37. The work of improving the well below the married quarters at West Hill Barracks was almost completed. Estimate Rs 150. outlay Rs 110.

38. The Supplemental estimate of Rs 1170 for converting the old cells in the Cannanore Fort into a double magazine and providing shelves and racks &c. at Cannanore was worked out bringing the Total outlay to Rs 3,233 against the estimate of Rs 3590.

39. The expenditure under Repairs Military amounted to Rs. 32,307 against an allotment of Rs 33,497.

II Imperial Civil Works. Coimbatore

40. An expenditure of Rs 91 was incurred in illuminating the principal

Post and Telegraph offices on the occasion of Her Majesty the Queen Empress' Jubilee.

41. Repairs to 5 Post offices were carried out during the year at an outlay of Rs. 762.

42. Nilgiris. The principal Post and Telegraph Offices were illuminated on the occasion of Queen Empress Jubilee at an outlay of Rs 136.

43. The Ootacamund Telegraph Office was repaired at a cost of Rs. 564 and the Wellington Post office at an outlay of Rs 158.

44. West Coast. Certain vacant buildings in the Fort at Tellicherry (late District Jail) have been converted into a Post Office and Post Master's quarters. Estimate Rs 1810. Expenditure Rs 1788 Work completed.

45. Rs 187 were expended in illuminating the principal Post and Telegraph buildings on the occasion of Her Majesty the Queen Empress' Jubilee.

46. A sum of Rs 637 were spent in repairs to 8 Postal buildings.

III Provincial

Civil Buildings

Coimbatore

47. A new room for the Huzur Treasury at Salem was constructed at a cost of Rs 2876 and the following works were almost completed.

(1) Additions and alterations to the quarters of the Superintendent Central Jail Salem. Estimate Rs. 3,600

Outlay up to date.. 2,604

(2) Quarters for the Dy Jailor attached to the Central Jail Salem

Estimate Rs. — 3,660

Outlay up to date .. 2,852

(3) Rebuilding a portion of the District Munsiff's Court at Namakal

Estimate Rupees 3,595

Outlay up to date. 2,514

(4) Purchasing and improving the Police Assistant Superintendents' residence at Tripatore. Estimate Rs 4,768

Outlay up to date. 4,673.

48 The undermentioned works are being carried out under the Supervision of the Jail Department from funds supplied by the P. W. Department and the outlay upon them is shewn against each.

(1) Constructing Close Prison at Coimbatore. Estimate Rupees 19,582

Expenditure Rupees. 11,717 × Expenditure of the year Rs 1534

(2) Improvements to the Central Jail at Coimbatore. Estimate Rs 5,745

Expenditure —— " 4,474 ⊗ — 30 — Rs. 4474

49. Five Minor works were undertaken and fully completed during the year under report at an outlay of Rupees 1892.

50. Thirty five repair works were carried out during the year at a cost of Rs. 3,482.

51. Nilgiris. Government House Ootacamund. Estimate Rupees 779,150 and the expenditure up to date Rs 682,508 Stone steps were provided to the Terraces and guttering to the roof with masonry drains in connection.

× The outlay of the year was only Rs. 2866

52. The Protestant Church at Wellington was completed during the year within the amount of the revised estimate. The flooring was not provided for but has been done out of savings on other subheads. The decoration of the interior walls still remains to be done.

× Rs. 47810; outlay of the year 1886-87 was Rs 9574

53. A Bench Magistrate's Court at Kotagiri was commenced and nearly completed. Estimate Rs. 8066

Expenditure Rupees. 5442

54. An Exercise Yard for European Convicts in the Ootacamund

Ootacamund Jail was construct
-ed at an outlay of Rs 4,472 against
an estimate of Rs 5,790.

55. The conversion of Rowe's
Bungalow at Devala into a Police
Station and lines was completed.
Total expenditure Rs 9186 against
an estimate of Rs 9,170, the outlay
for the year being Rupees 5,168.

56. The Executive Engineer's × Estimate Rs. 3175 outlay of the year Rs. 2897
Office at Ootacamund was much
improved as also was the residence
of the Secretariat clerks at Crewe ⊗
Hall.

57. The new buildings for ⊗ Estimate Rs. 3460 outlay of the year Rs 3275
Brooks Memorial School was
up to roof level at the close of the
year. Estimate Rs 38,180. Expendi
-ture Rs 20,149.

58. The construction of the
Roman Catholic Church at Wellington
was proceeding rapidly under the
supervision of the Chaplain.
Estimate

Estimate Rupees 30,526. Expenditure
Rs 7000. This Church has to be
built for the amount of the Govern
-ment grant.

59. A new Police station at
Nedwattam was commenced in March.

60. Materials were collected
for a Museum at Ootacamund,
but the work has since been cont.
termanded. and materials that had been collected transferred to other works.

61. The "Minor works" under
this head constructed during the
year comprised:-

The conversion of Police Ins-
pector's House at Gudalur into
Police Huts; and of the Cinchona
Laboratory at Ootacamund into
an Herbarium; the addition of
an Office room to the upper story
of Government Offices, at the Stone
House, and the painting of these
Offices throughout.

62. Provision was made for
Supplying

supplying Lightning Conductors to the various public buildings and churches at Ootacamund and to the church at Wellington; but except for the latter, the materials for the same, had not arrived from England by the close of the year.

63. The Police lines at Ootacamund were provided with masonry drains and Coonoor Cemetery was also thoroughly drained and extended.

64. The Cemetery at Wellington was provided with a barbed wire fence, which was in course of erection at the close of the year.

65. The building on Mount Stuart at Ootacamund occupied by the Military Department were repaired at a cost of Rs 4011. The roofing will be taken in hand this year.

65. Rupees 9177 was spent on repairs to Government House and the total outlay under this head amounted to Rs 19,670.

x Provincial Civil Buildings

67. West Coast. The District Munsiff's Court and the Record room at Calicut, which remained incomplete at the end of the previous year, were finished during the year under report; and with these buildings the whole project of the Law Courts at Calicut, as originally designed, has been completed at an expenditure of Rs 96,433, against the estimate of Rs 95,240; and handed over to the Judicial Department.

Two supplemental estimates (1) for Rs. 8127 for converting the garbling shed into Vakeel's chambers and (2) for Rs 1203 for providing sun shades &c were sanctioned during the year and an aggregate expenditure of Rs. 7485, was incurred.

The Vakeel's Chambers were almost

almost completed, when it was noticed that the old masonry pillars* were not strong enough for the coupled roof. The tiles have therefore been removed and the roof temporarily thatched pending the sanction of a revised estimate under preparation. This last estimate will also provide for various other items such as roads walls, verandahs &c; now only asked for by the Judge.

68. Satisfactory progress was made with the new public offices at Sanamj. During the year, the main building was raised from 7 feet of height in the lower floor to the full height of the upper floor, thus completing the entire masonry, the terrace floor throughout has also been completed, and the tiled roof three fourths completed. The year's

* of the Gerbling shed.

year's allotment of Rupees 20,000 was fully utilized bringing the total expenditure to Rupees 50,784 against the estimate of of Rupees 74,521.

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69. Improvements to the Government Church at Cochin, which were commenced last year, and stopped pending formal sanction to the estimate; were resumed about the beginning of February & Rupees 14,616 were spent against an estimate of Rupees 20,680. The trusses were completed; tiles and corrugated sheeting and other materials collected at site and iron work for two trusses received from Madras.

* This includes outlay of Rs. 559 incurred in last year, and adjusted in this R.B.

70 A residence for the Assistt. Superintendent of Police at Malapuram, for which an estimate of Rs 13,660 was sanctioned

was

was undertaken and Rs. 7,222 spent out of an allotment of Rs. 7,234.

71. Rs. 1,400 were expended on a Sub Registrar's Office at Cherayute against an estimate of Rupees 3,020. Foundations and basement were completed and the necessary materials collected.

72. Improvements to the Munsiff's Court at Betatnad were put in hand and the full allot-ment of Rs. 2000 worked out. Work in fair progress. Estimate Rs. 4295.

73. The Head Assistant Collector's Residence at Cundapur, an incomplete work of the pre-vious year, was fully com-pleted and handed over to the Revenue Department.

Total expenditure Rupees 16,680 against an estimate of Rupees 17,000; the outlay for the year being Rupees 8,915 against an allot-ment of Rupees 9,235.

74. Additions and Improvements to the Police Superintendent's Office at Mangalore, were commenced in February 1887 and the full allot-ment of Rs. 3,000 spent. Estimate Rs 9200. Work in progress.

75. A Sub Registrar's Office at Puthur and another at Udipi were undertaken at the close of the year and Rs 1,000 and Rs 1,200 expended res-pectively against sanctioned estimates amounting to Rs 3120 and Rs 3,370. The works are in good progress.

76. Rupees 10,000 were allotted to-wards compensation for the site for the New Collector's Cutchery at Calicut; advice of amount paid by the Civil Department is a-waited for adjustment. The plans and estimates of the build-ing are under revision and will shortly be submitted for sanction.

77. Rupees 1,665 were expended in altering a vacant building in

× It is now understood this was paid, so that the unspent balance of the year will be reduced to this extent
K.B.

in the Fort at Tellicherry (late jail) to fit it for the Sub Collector's Cutcherry. Work completed.

78. The incomplete work of additions and alterations to the District Munsiff's Court House at Paynad was completed. Total outlay Rs 1,509 against an estimate of Rs. 1,520.

79. The Sweeper's quarters at the Lunatic Asylum Calicut were converted into a patients ward under the Superintendence of the Superintendent of the Institution. Expenditure Rs 2,268 against an estimate of Rs 2,740.

80. A temporary shed for the accommodation of 36 patients at the Lunatic Asylum at Calicut was erected for Rs 850.

81. An estimate of Rupees 2450 was sanctioned for a Sub Registrar's Office at Mamarghat, but only Rs 1,500 spent owing to the locality being

being an isolated and feverish one. Work in progress.

82. Under Repairs Provincial Rs 6683 were expended, the chief items being:—

(1) Repairing the roof of St. John's Church at Cannanore. Outlay Rs — 1715

(2) Rebuilding the turret of the District Munsiff's Court House at Tellicherry ——————— " — 475

(3) Repairing the ~~room of the~~ record room of the Anzur cutcherry at Calicut ——————— " — 572

(4) Repairing the Malapuram Church and belfry ——————— " — 650

(5) Repairing the Taluq Cutcherry at Manjerry ——————— " — 1580

IV. Provincial Communications

83. Nilgiris. The improvements to the road from Ootacamund to Gudalur were completed during the year with the exception of some revetments

revetments and parapets; and the avenues, which owing to the bleak situation have had to be replanted several times. Estimate Rs 22,000. Expenditure Rs. 216,179.

84. The last house in the 9th mile × below Coonoor was completed at a cost of Rs 7,359. Estimate Rs. 7010. ~~and~~ The construction of an Overseer's Residence at Cherambodi was commenced by the Local Fund Board Engineer.

× of the Coonoor ghat

85. The new Bridge at Burliar was $\frac{2}{3}$ rds completed; and a commencement was made with the cart stands and toll houses on the ghat road.

86. At Ootacamund a new road up Mountstuart was completed at a cost of Rs 8,427 against an estimate of Rs. 10,855; a paved drain was also laid up Church Hill.

87. Rupees 37,482 were spent during the year in maintaining the ghat road from Kullar to Gudalur and a small portion of it was re metalled at a cost of Rs 3,671. Special repairs to revetment cost Rs. 1654.

V. Provl. Mis: Public Improvements.

88. Nilgiris. ~~A~~ commencement was made with the improvements to Ootacamund Water supply North of the lake as detailed under General remarks. Estimate Rs: 170,000. Outlay Rs 110,085.

89. The Bazaar Drainage scheme was finally completed. Rs 1720 were spent in improving the margin of Ootacamund Lake principally in removing wattle and planting grass and the erection of the wire fencing was just commenced at the close of the year.

× Improving the margin of Ooty Lake This should have been a separate paragraph— E.B.

90. The Adam Memorial Fountain was completed. Estimate Rs. 16,850. Expenditure

Rs.

Expenditure Rs. 4493; exclusive of cost of foundations Rs 1105, permitted by the Committee direct to England. Some payments have still to be made.

91. Under Minor works a well was built in the compound of the Sub Magistrate's court at Gudalur at a cost of Rs 673.

92. The construction of a raised footpath from Charing cross Ootacamund to the market was commenced.

93. Under Repairs Rs 933 were spent on the escapes of Ootacamund and St. Laurence Lakes; the former was also cleared of weeds; and the Aqueduct at the Elk Hill cutting was re-paired.

94. West Coast. The revetment constructed for the protection of the town of Ponani was extended to 520 ft and Rs 3,295 expended against the estimate of

of Rs 4,280. Work in progress. Revetment almost completed.

Coimbatore
30 May 1887

L. Beatty Colonel. R.E.
Superintending Engr 4th Circle

From,

Colonel. J. Beatty. R.E.
Supg. Engineer 4th Cir.

No. 1
PW 4129/87

Dated 30th
Recd " May 1887.

Administration
Report for the year
1886-87.
under General Buildings and Roads Branch

Superintending Engineer's Office 4th Circle.

Coimbatore. 30th May 1887.

No. 225
E.W.

FROM,

COLONEL J. BEATTY R. E.,

SUPERINTENDING ENGINEER,

FOURTH CIRCLE.

TO,

The Chief Engineer,
P. W. Department

Enclosure 1
1. Administration Report with a statement

SIR,

I have the honor to submit my Administration Report of the General Buildings and Roads branch of the 4th Circle for the year 1886-87 with a comparative statement showing the grant and outlay under all heads of service for the official years 1885/86 and 1886/87.

I have the honor to be
Sir,
Your most obt Servt

J. Beatty. Colonel. R.E.
Supg Engr 4th Circle

P.W.C. No. 4129

From

COLONEL J. BEATTY R. E.,
SUPERINTENDING ENGINEER,
FOURTH CIRCLE.

Dated. 30th "
Recd: 1.6.87 May 1887.

No. 225
E.W.

Enclo: 7 2

Administration
Report for the year
1886-87.

Submits the — under
General Buildings and
Roads Branch.

Plans and Publication:— Following is a brief Summary of the work turned out by the Govt: Litho: Press from April 1886 to March 1887.

Departments	Amount			Remarks.
General Branch P.W.D.	1476	9	4	
Irrigation Branch P.W.D.	5227	6	3	
Quarter Master General	4079	14	8	
Superintendent of Stationery	1535	5	9	
Revenue Settlement	114	"	"	
Thro Govt: Press { Board of Revenue	385	"	"	
Thro Govt: Press { Public Department	486	10	5	
Thro Govt: Press { Military Depart.	100	"	"	
Government Farm	32	2	5	
Commissioner of Salt Revenue	251	"	1	
Engineer-in-Chief Madras Ry	165	6	7	
Civil Engineering College	271	11	8	
Tank Maintenance Scheme	324	"	"	
Consulting Engineer for Rail	75	"	"	
Commissary General	31	"	"	
Sanitary Commissioner	405	12	"	
Examiner P. W. Accounts	2	"	"	
Executive Engineer Presidency	136	6	"	
Secretary U.C.S. Examination	45	"	"	
Secretary Board of Examiners	108	"	"	
Supdg: Engineer V. Circle	168	12	"	
Harbour Trust Board	108	"	"	
Grand Total Value of Work Turned	15529	2	2	
Working Expenses with Contingencies	11553	2	11	
Balance in favor of the Govt	3975	15	3	

Govt: Litho: Press
Chepauk
2nd July
May 1887.

W. Ogborne
Superintendent

Report

L

Please let me have soon the statement of work turned out during 1886/7 - It is required for the Administration Report

7/3

L Aw

2/3/87

S.H.W.

Statement herewith

Sent Wells L

2-7-87.

Ca

12/7

GOVERNMENT OF MADRAS

Administration Report

General Buildings and Roads Branch

for the year 1886-87.

First Circle

Part I. General Remarks

(1) The grants and outlays under the various heads will be found detailed in part II

(2) In the Ganjam District (portion called the Rushikulya Division) the Chief work was the construction of the Gopalpur screw-pile pier; at the end of last Official year almost all the materials for the work as designed had been delivered and Construction had progressed up to the 10th Bay. In this year the progress was not as great as had been expected and the end of the year found the work only carried out, as far as the 40th bay; (there will be 93 in all exclusive of the prolongation shorewards instead of masonry abutment). It was found as the work was carried on that differences in the configuration of the bottom from that which obtained when the design was made, necessitated the use after the 17th tier

2

of longer piles than anticipated. (see Supdg Engrs Inspection notes 20-24th April 86, and subsequent correspondence).

This rendered it advisable to put Extra bracing to these two end sections of the pier (from tier to end) (See Letter C/110 dated 25th February 87 and No 64 dated 19th April 87.

Some hard ground has also been met with here and there for screwing through which the Contractors make large claims. A revised Estimate therefore became necessary and has been sent in; it amounts to Rs 3,05,000. —

In the Vizagapatam District the Chief work was the Construction of the "Potinghi - Koraput Road" Estimate Rs 2,72,700

The progress on this was very slow owing to the extreme unhealthiness of the locality. Every Subordinate sent to the work had in a short time to leave it with severe fever The Assistant Engineer, Mr. Knowles, though frequently suffering from fever has stuck to the work well, but of course without adequate subordinate Assistance he could not do very much. Labor is also very difficult to obtain along the line of road.

The Executive Engineer who also was attacked with fever when he went to visit the place, writes quite despairingly of the work but it has been pointed out to him that similar trials and difficulties were experienced in Construction of the Potinghi Ghat road and at last overcome by dogged perseverance

The iron work for 2 Bridges for this Potinghi-Koraput Road were ordered from England during the year (See Proceedings Madras Govern-ment No 2173 dated 30th August 86) but it is not known if there was any expenditure on them.

At the same time the iron work for one of the two bridges on the Potinghi Ghat Road which alone are required to finish the road, was ordered from England.

The wheel traffic on the Potinghi Ghat Road has increased to a surprising degree, it averaged during the year 2316 bandies a month.

The effect on the Country above the Ghat must be great. The Collector in writing

† See his letters with P. M. G 1277 Judicial d/15th May 86.

from Koraput in March 86 says: "Carts come by the bungalow where I am now writing, and where I have in former days longed for even two carts to help me in my works, literally in hundreds."

The "Surveying and levelling for a road from Koraput to Jagdalpur" (Estimate Rs 1500) was carried on under considerable difficulties owing to the unhealthiness and wildness of the country; the Executive Engineer however reports that Surveys and plans for 35 miles have been made.

A new 2nd order light was in September fitted to the Santapilly Light house. It was visited on 17th January by the Superintending Engineer (See Inspection Notes $\frac{C}{42}$ dated 17th January 87) and by the Chief Engineer and Port Officer of Madras on 16th February 87 (See P. W.G. 160-161 d/11-4-87 87.

In this District (Vizagapatam) also the "Bungalow for Assistant Superintendent of Police at Jeypore," and the "Additional accommodation to the Huzur treasury at Vizagapatam" were completed during the year:

whilst considerable progress was made with the "Police Station at Koraput" the "Additions to the Deputy Tahsildars' Office at Bimlipatam" the "Improvements to the District Court house at Vizagapatam" and one or two minor buildings.

In the Godavari Eastern Division. The "Improvements to Post Office at Bhadrachellum", the "Constructing Quarters for Telegraph Signallers at Cocanada", the "Improvements to the Telegraph Office at Cocanada", the "District Munsiffs Court House at Peddapur", the "Sub magistrates Cutcherri at Pittapur", the "2nd Class Station house at Bhadrachellum", the "Extension to the Provincial College at Rajahmundry" the "Registrars Office at Cocanada", the "Residence for the Superintending Engineer at Dowlaishweram", the "Sub Registrars Office at Pittapur" and the "Improvements to the Sea Customs buildings at Cocanada" and a few other minor buildings were carried to Completion and details as to Cost and expenditure will be found in part II.

The "Water Supply and improvements to the existing drainage of the Central Jail at Rajamundry" was gone on with during the year and the pumps having been fixed and laying of pipes &c finished, the water distribution scheme was brought into operation.

The "House for the Executive Engineer Dowlaishweram" was not pushed on with as the work on the new head Lock and River wall would have rendered it uninhabitable whilst they were going on even if the house had been finished. It has its roof timbers fixed.

On the "Kovur-Manjair junction Canal" the large Juliabaga Aqueduct was completed, and there remains now but little to finish off the whole work of the Canal.

In the Godavari Western Division

The "Sub Registrar's Office at Pentapad", the "First class Cutcherri at Tamuku" the "First class Cutcherri at Bhimavaram" were brought almost to completion and a "Sub Registrar's Office at Tamuku"

The changes in the permanent Staff were numerous during the year. Major Sydenham Clarke R.E. who had assumed charge of the Circle in February 1886, after the lamented death of Colonel Montgomerie R.E., handed over the charge to Mr. George T. Walch on 15th June.

The Rushikulya Division remained during the year in charge of Mr. Hannan, but Mr. C.W. Wood was transferred to the Kistna District and gave over charge of the Russelkonda Sub Dn. to Mr. G. T. Handcock, on 12th August.

In the Ganjam Division Mr. C. Vincent remained in charge till 8th February, when he was transferred to the 2nd Circle and gave over charge to Mr. H.G. Evans.

In the Vizagapatam Division Mr. T.D. Harris who had been so long in charge of it died on 4th June

and charge was assumed by Mr. S. D. Pears on 16th July, and he again was relieved by Colonel A. T. Fraser R.E. on 1st October.

In the Godavari Eastern Division.

Captain C E Rawson, who had obtained furlough handed over to Mr. W. Hughes on 15th April. Mr. Hughes had on account of illness to leave the District handed over on 7th ~~February~~ March to Mr. J. T. Somers Asst Engineer who retained charge of the Division till 26th February when it was assumed by Mr. J. E. Paul.

In the Godavari Central Division

Mr. W. Popp remained in charge till 31st March, when having obtained furlough he handed over to Mr. W C Lewis.

Mr. W. Knowles Assistant Engineer was on 3rd May transferred to the Vizagapatam Division. Mr. F. W. Ashpitel joined the Division on 17th Sept 86 but left it again on transfer to the

5th Circle on 10th December.

In the Godavari Western Division

Mr. J. E. Paul remained in charge till 24th February when in consequence of Mr. Hughes illness he had to be transferred to the Eastern Division; he handed over to Mr. J. S. Wilson Assistant Engineer, who carried on the work till charge was assumed, on 9th March, by Mr. W. C. Lewis, who then had this Division as well as the Central one under him; it was intended, but the intention has since been abandoned, to amalgamate this and the Central Division. Mr. J. S. Wilson Assistant Engineer joined the Division on 22nd November 86

These numerous changes most of which were unavoidable, were not conducive to satisfactory prosecution of work and general administration, and when to them was added the sudden wiping out in the midst of the best working season

of the large temporary Establishment which had to be sometime kept employed if may be required that the effect on expenditure, and on works generally was not detrimental.

Administration Report-part-II No. I

Statement shewing outlay compared with grant under Departmental Heads.

Imperial

		Military					Other Services				
		Original Budget grant	As modified after issue of the Budget orders	Expenditure	Expenditure compared with modifications. More	Less.	Original Budget grant	As modified after issue of the Budget orders	Expenditure	Expenditure compared with modifications More	Less
Orig. Works.	Vizagapatam Division	"	"	"	"	"	"	2050	598	"	1452
	Godavari Eastern do	"	"	"	"	"	"	6835	6870	35	"
	do Central do	"	"	"	"	"	"	50	25	"	25
	do Western do	"	"	"	"	"	"	100	100	"	"
	Rushikulya and Ganjam do	"	"	38	38	"	"	150	138	"	12
	Total	"	"	38	38	"	"	9185	7731	35	1489
Repairs	Vizagapatam Division	"	2000	2573	573	"	"	800	348	"	452
	Godavari Eastern do	"	600	692	92	"	"	1400	793	"	607
	do Central do	"	"	"	"	"	"	"	"	"	"
	do Western do	"	"	80	80	"	"	"	"	"	"
	Rushikulya & Ganjam do	"	1345	1358	13	"	"	500	237	"	263
	Total	"	3945	4703	758	"	"	2700	1378	"	1322

Statement showing outlay compared with grant under Departmental Heads.

Head

Excluded

Incorporated

General Purposes & Navigation

Head	Sub-Head	Minor	Original Budget grant	Expenditure compared with modifications	more	less	Expenditure compared with modifications	more	less	Original Budget grant	Expenditure compared with modifications	more	less	Expenditure compared with modifications	more	less	Original Budget grant	Expenditure compared with modifications	more	less	Expenditure compared with modifications	more	less
Original Works	Navigation	Vizagapatam Dn	70888	48911		21977																	
		Godavari Eastern do	28539	22466		6073																	
		do Central do	2325	1514		811																	
		do Western do	12383	12169		214																	
		Ganjam and Krishnakulya Dn	2250	4711	2461																		
		Total		124375	89971	24613	36865																
Repairs		Vizagapatam Dn		26100	25055		1045																
		Godavari Eastern do		13200	11036		2164																
		do Central do																					
		do Western do		800	709		91																
		Ganjam and Krishnakulya Dn's		3400	3151		249																
		Total		43500	39951		3549																
Roads & Services		Vizagapatam Dn		5502	2569		2933																
		Godavari Eastern do																					
		do Central do																					
		do Western do																					
		Ganjam and Krishnakulya Dn's		680	1124		444																
				6182	3693		2933																

No II

Statement showing outlay under funds and Departmental and Service Heads.

Fund	Class	Departmental & Service Heads	Outlay	Total
Imperial	Military original Works	Ganjam & Krishnakulya Divisions	38	
		Vizagapatam do do	"	
		Godavari Eastern do do	"	
		do Central do do	"	
		do Western do do	"	
				38
	Repairs	Ganjam & Krishnakulya Divisions	1358	
		Vizagapatam do do	2573	
		Godavari Eastern do do	692	
		do Western do do	80	
				4703
	Roads & Services Original works	Vizagapatam Division	598	
		Godavari Eastern do	6870	
		do Central do do	25	
		do Western do do	100	
		Ganjam & Krishnakulya do	138	
				7731
	Repairs	Vizagapatam Division	348	
		Godavari Eastern do	793	
		do Western do do	"	
		Ganjam do	237	
				1378
			C.O.	13,850

Fund	Class	Departmental & Service Heads	Outlay	Total
Provincial	Provincial Civil Buildings	B/Over.		13850
	Original Works	Ganjam & Rushikulya Division	4711	
		Vizagapatam ——— do ———	11394	
		Godavari Eastern ——— do ———	22766	
		——do—— Central ——— do ———	1514	
		——do—— Western ——— do ———	12169	52554
	Repairs	Ganjam & Rushikulya Division	3151	
		Vizagapatam ——— do ———	4363	
		Godavari Eastern ——— do ———	3054	
		——do—— Western ——— do ———	709	11277
	Communications			
	Original Works	Vizagapatam Division	37417	
		Godavari Eastern ——— do ———	"	
		——do—— Western ——— do ———	"	37417
	Repairs	Vizagapatam ——— do ———	20692	
		Godavari Eastern ——— do ———	7982	28674
	Tools & Plant	Vizagapatam ——— do ———	2569	
		Ganjam & Rushikulya ——— do ———	1124	3693
	Incorporated Local Mis: Pub Improvements			
	Repairs—Communications	Godavari Eastern Division	516	516
Local	Original Works	Godavari Eastern Division	11772	11772
	Repairs	Godavari Eastern Division	3577	
		Ganjam & Rushikulya ——— do ———	280	3857
	Tools & Plant	Godavari Eastern Division	63	63
			C/O	163673

Fund	Class	Departmental & Service Heads	Outlay	Total
		B/f. ———		163673
	Excluded Local Civil Buildings Repairs	Godavari Eastern Division	160	160
	Mis: Public Improvements			
	Original Works	Ganjam & Rushikulya Division	112681	
		Godavari Eastern ——— do ———	1031	
		Vizagapatam ——— do ———	179	
				113891
Local	Repairs	Ganjam & Rushikulya Div^o ———	94	
		Godavari Eastern ——— do ———	321	
		Vizagapatam ———	129	
				544
		Total ———		277 8268

Provincial

No III

Statement showing outlay compared with grants under Departmental Service Heads.

Imperial

Sub heads.	Military					Other Services				
	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less
Original works: Military	"	"	38	38	"	"	"	"	"	"
Original works: Civil Buildings	"	"	"	"	"	"	9185	7731	35	1489
Original works: Communications	"	"	"	"	"	"	"	"	"	"
Original works: Mis: P. Improvements	"	"	"	"	"	"	"	"	"	"
Total	"	"	38	38	"	"	9185	7731	35	1489
Repairs: Military	"	3945	4703	758	"	"	"	"	"	"
Repairs: Civil Buildings	"	"	"	"	"	"	2700	1378	"	1322
Repairs: Communications	"	"	"	"	"	"	"	"	"	"
Repairs: Mis: P. Improvements	"	"	"	"	"	"	"	"	"	"
Total	"	3945	4703	758	"	"	2700	1378	"	1322
Grand total	"	3945	4741	796	"	"	11885	9109	35	2811

First Circle

Statement showing outlay compared with grant under Departmental and Service Heads.

Provincial

	General					Navigation				
	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less
Original works: Civil Buildings	"	63075	52554	"	10521	"	"	"	"	"
Original works: Communications	"	61300	37417	"	23883	"	"	"	"	"
Original works: Mis: P. Improvements	"	"	"	"	"	"	"	"	"	"
Total	"	124375	89971	"	34404	"	"	"	"	"
Repairs: Civil Buildings	"	14900	11277	"	3623	"	"	"	"	"
Repairs: Communications	"	28600	28674	74	"	"	"	"	"	"
Repairs: Mis: P. Improvements	"	"	"	"	"	"	"	"	"	"
Total	"	43500	39951	74	3623	"	"	"	"	"
Grand total	"	167875	129922	74	38027	"	"	"	"	"

Local

	Incorporated					Excluded				
	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less	Original Budget grant	Modified grant	outlay	outlay compared with modified grant: more	outlay compared with modified grant: less
Original works: Civil Buildings	"	"	"	"	"	"	"	"	"	"
Original works: Communications	"	17663	11772	"	5891	"	"	"	"	"
Original works: Mis: P. Improvements	"	"	"	"	"	"	132064	113891	"	18173
Total	"	17663	11772	"	5891	"	132064	113891		18173
Repairs: Civil Buildings	"	"	"	"	"	"	160	160	"	"
Repairs: Communications	"	5449	3857	"	1592	"	"	"	"	"
Repairs: Mis: P. Improvements	"	500	516	16	"	"	1772	544		1228
Total	"	5949	4373	16	1592	"	1932	704		1228
Grand total	"	23612	16145	16	7483	"	133996	114595		19401

Statement showing the outlay on works under Each Fund distributed by Divisions

Divisions	Imperial												Provincial Local & Irrigation												Grand total
	Military				Other Services				Other Public works				Incorporated				Excluded								
	Original		Repairs		Original		Repairs		Original		Repairs		Original		Repairs		Original		Repairs		Original		Repairs		
	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	Imp.	Prov.	
Ganjam & Rushikulya	38		1358		138		234		"		"		"		280		1126		94		"		"		12268
Vizagapatam	"		2573		598		348		"		"		"		"		179		129		"		"		7693
Godavari Eastern	"		692		6840		793		"		"		11036		11724		1093		481		"		"		59844
Do Central	"		"		25		"		"		"		1514		"		"		"		"		"		1539
Do Western	"		80		100		"		"		"		12169		709		"		"		"		"		13958
Total	38		4703		7731		1348		"		"		24822		899		11399		704		"		"		99844

Part II

Imperial Military

I

Original works.

An outlay of Rs 38 was incurred on incomplete original works of last year without any grant.

Repairs

The outlay under this head was Rs 4703 against the grant of Rs 3945 and the excess outlay is due chiefly to the transfer of house rent and other charges of Civil Apothecaries in the Vizagapatam and Godavari Western Divisions to this Department.

The following repair works have been completed during the year.

Vizagapatam Division

The Military buildings and cantonment roads at Vizianagram were repaired and maintained in fair order at a cost of Rs 2573.

Godavari Eastern Division

Repairs to the Military Buildings at Samulcottah have been carried out at a cost of Rs 692.

Godavari Western Division

A sum of Rs 80 was disbursed on account of House rent to Civil Apothecary.

Ganjam and Rushikulya Divisions

A sum of Rs 1358 was spent in repairing Military Hospital, Cholera and small pox shed and the floor of quarter guard at Berhampore and on account of House rent to Military Medical Subordinates at Berhampore and Chicacole

Imperial Civil Buildings

Original works

The unexpended balance under this head amounts to Rs 1454 against the grant of Rs 9185 and the short outlay is due to the site for the Post Office building at Salur not having been made over to this Department by the Collector till the end of February 1887.

Repairs

The outlay under this head falls short of the grant by Rs 1322 and the following are the chief reasons for the short outlay.

Godavari Eastern Division

Repairs to the Telegraph Buildings at Cocanada short outlay Rs 609	The repairs to these buildings were not put in hand pending the completion of the improvements to the same.

Vizagapatam Division

Repairs to Post Offices at Vizagapatam, Narsipatam and Korapat short outlay Rs 452	The repairs to these buildings were completed but the accounts were not closed hence the short outlay.

Ganjam & Rushikulya Division

Post office at Parlakimedi Telegraph Office at Chicacole. short outlay Rs 263.	The short outlay is due to reduction of temporary Establishment in the Chicacole Sub Division.

Provincial

Original Works.

The unexpended balance under this head amounted to Rs 34,404 out of an allotment of Rs 124,375. The following are the chief items of and the reasons

for short outlay.

Vizagapatam Division

About Rs 24000 were reserved to meet the cost of the Iron Bridges on the Polnigiri Ghat Road ordered from and to be paid in England but no notice has been received that this amount has been utilized

Police Station House at Koraput. short outlay Rs 1416	Grant could not be utilized from want of subordinate Agency to carry out the work and from the difficulties of the place
Additions & alterations to Dy Tahsildars Cutcherry at Paleondah, short outlay Rs 2044.	A Contractor failed to do the work ex-pected.

Godavari Eastern Division

Executive Engineers Quarters at Dowlaiphweram — short outlay — Rs 2564.	The workshop bills for work done have not been received in time for adjustment but
Sub magistrates office - at Tuni - short outlay Rs 2286.	
Dispensary at Bhadrachel-lam - short Outlay Rs 1016.	

the Executive Engineer states that this will be done in the supplemental ac-counts for March 1884.

Supdg: Engrs Quarters at Dowlaiphweram — Registrars Office Cocanada	3	Short outlay 1129.	This is due to saving effected on the com-

-pleted works.

Repairs

The unexpended balance under this head is Rs 3549 and the following are the chief items of and reasons for short outlay.

Godavari Eastern Division

A sum of Rs 2000 was anticipated to be utilized for repairs to the Collectors Cutcherry at Cocanada and for other buildings but the Estimates for these works did not come in as they should have in time hence the short outlay.

The short outlay of Rs 1000 in the Vizagapatam District was due chiefly to a saving in Repairs to Warders lines in the Lunatic Asylum Waltair. it having been decided not to put teak in the roofs of these huts.

Local Incorporated

Communications Original works

The unexpended balance under this head amounted to Rs 5891 out of an allotment of Rs 17,663.

The

The short outlay Rs 5891 is due to stoppage of work on the Kovur Manjair junction Canal pending submission of a revised Estimate in the Godavari Eastern Division.

Repairs

The short outlay Rs 1576 is due chiefly to Estimates not having been received from the Executive Engineer Godavari Eastern Division for the full amount of allotment.

Excluded Local

Miss: Pub: Improvements

Original works.

The unexpended balance under this head amounted to Rs 18173 out of an allotment of Rs 132,064 and the Chief reason for the short outlay is Chiefly due to the Contractors not having got on with the Gopalpur pier as quickly as was expected.

Repairs

Under this head the short outlay is Rs 1228 and it is due to the

sanctioned Estimate for the repairs to Nakalapudi Light House having been received too late in the year to admit of the work being carried out.

Progress of works.

Imperial Civil Works.

Original works

Godavari Eastern Division

Improvements to the Post office building at Bhadrachellum.

Estimate Rupees 430.

Expenditure in 1886-87. 429.

This work was commenced in 1885-86 and completed during the year at a total cost of Rs 435.

Constructing Quarters for Signallers of the Telegraph Department at Cocanada.

Estimate—Rs 34,135.

Expenditure in 1886-87. 5529.

This work was completed during the year at a total cost of Rs 39,449.

Improvements to the Telegraph Office at Cocanada.

Estimate

Estimate — Rs 4000.

Expenditure in 1886-87. 758.

Work was completed during the year at a total cost of Rs 3696.

A sum of Rs 442 was expended for illuminating Postal and Telegraph Offices for Her Majesty the Queens' jubilee in the following Divisions.

Godavari	Eastern	Rs 154
Do.	Western	" 100
Do.	Central	" 25
Vizagapatam		" 25
Ganjam and Kushinkulya	Drs	" 138
		442.

Vizagapatam Division

Constructing Post office building at Salur.

Estimate — Rs 2000

Expenditure in 1886-87 — 598.

This work could not be commenced till late in the year the site not having been placed at the disposal of the Department till February 1887.

was commenced.

Provincial Civil Buildings.

Original works.

Godavari Eastern Division.

Constructing District Munsiffs Court House at Peddapur.

Estimate — Rs 10300.

Expenditure during the year — 1159.

Do upto end of this year — 11686.

Work completed.

Constructing Sub Magistrates Cutcherry at Pittapur.

Estimate — Rs 8993.

Expenditure during the year — 3351.

Do upto end of this year — 10045.

Work completed except that another coat of painting to wood work has to be done.

Constructing a Sub Magistrates Cutcherry at Tuni.

Estimate — Rs 9436.

Expenditure during the year — 3714.

Do upto end of this year — 5709.

Walls of the main building and cook room have been raised to full height. Masonry work of the Latrine completed

Gate pillars and boundary wall Comp-
-pleted wood work to roof being fitted.

Water supply and improvements to the existing drainage of the Central Jail at Rajahmundry.

Estimate ___ Rs 33030.

Expenditure during the year 4407.

Do upto end of this year 30599.

All pipes laid; Hydraults and pumps fitted and scheme in full working order.

Constructing a 2nd Class Station House at Bhadrachellum.

Estimate ___ Rs 1826.

Expenditure during the year 780.

Do upto end of this year 1769.

Work Completed.

Proposed Extension to the Provincial College Rajahmundry.

Estimate ___ Rs 1620.

Expenditure during the year 95.

Work completed at a cost of Rs 1526.

Constructing Quarters for the Hospital Assistant attached to the D. P. W. Dispensary at Dow-

-laishweram

Estimate ___ Rs 605.

Expenditure during the year 354.

Work Completed at a Cost of Rs 540.

Constructing a Dispensary at Badrachellum

Estimate ___ Rs 4246.

Expenditure during the year 614.

Do upto end of this year 839.

Materials are being collected for the work

Constructing a Registrar's Office at Cocanada.

Estimate ___ Rs 4839.

Expenditure during the year 508.

Do upto end of this year 4573.

Work completed.

Constructing Residence for the Superintending Engineer at Dowlaishweram.

Estimate ___ Rs 22,400.

Expenditure during the year 2457.

Do upto end of this year 21697

Work Completed.

Constructing Sub Registrar's Office at Pittapur.

Estimate ___ Rs 2300

Expenditure during the year 204.

Expenditure upto end of this year. 2,315.
Work Completed.

Constructing Residence for the Executive Engineer at Dowlaishweram.

Estimate ——— Rs 12,500.
Expenditure during the year. 2,736.
Do upto end of this year. 8,909.
Walls raised to full height woodwork to roof nearly completed.

Improvements to the Sea Customs buildings at Cocanada.

Estimate ——— Rs 4,310.
Expenditure during the year — 4820.
Do upto end of this year — 4820.
Work Completed.

Godavari Central Division

Constructing Sub Registrar's Office at Razole.

Estimate ——— Rs 2,450.
Expenditure during the year 1659.
Do upto end of this year ——— 2196.
Walls have been raised upto full height. Slope terrace finished. Main roof in progress pointing to outside walls completed.

The Executive Engineer states that owing to the difficulty in procuring bricks for the work it was not possible to finish it during the year.

Godavari Western Division

Sub Registrar's Office at Pentapad.

Estimate ——— Rs 2,410
Expenditure during the year — 2679
Work completed except putting up 2 weather boards.

Sub Registrar's Office at Tamuku

Estimate ——— Rs 3090.
Expenditure during the year — 163.
Do upto end of this year — 163.
Materials are being collected.

First Class Taluq Cutcherry at Tamuku.

Estimate ——— Rs 21,420.
Expenditure during the year — 7,439.
Do to end of this year ——— 19,770.
Work very nearly completed.

First Class Taluq Cutcherry at Bheemavaram

Estimate ——— Rs 22,650.
Expenditure during the year — 5,929.

Expenditure to end of this year. 21,701.
Work very nearly completed.

Vizagapatam Division.

Constructing a Bungalow for the Asst Superintendent of Police at Jeypore.

Estimate ——— Rs 15,350.
Expenditure during the year 534.
Total Expenditure ——— 15025.
Work completed and handed over to the Police Department. A few minor fittings remain in hand.

Additional accommodation to the Huzur treasury at Vizagapatam.

Estimate ——— Rs 9,360.
Expenditure during the year 2,492.
Do upto end of this year. 9060.
Work completed and handed over to the Revenue Department.

Constructing 2° Class Police Station House at Komarada.

Estimate ——— Rs 1500.
Expenditure during the year - 426.
Expenditure upto end of this year - 426
The progress of work has been slow on account of it's distant situation

and call for supervision on the Potnighi Ghat.

Additions and Alterations to the Deputy Tahsildars Office at Palkondah and Constructing a 2ª Class Police Station House in its Compound.

Estimate ——— Rs 4,920.
Expenditure during the year - 1876.
——Do—— upto end of this year ——— 1876.
Work situated at a distance and the Contractor's work has been slow.

Police Station House at Koraput.

Estimate ——— Rs 3895
Expenditure in 1886-87 ——— 2021
Total Expenditure ——— 2079.
Much progress has been made with doors and windows and roofing. The masonry delayed by the extreme difficulty in getting lime which has to be carted from the Jeypore plateau.

Additions to the Dy. Tahsildars Office at Bimlipatam

Estimate ——— Rs 1040
Expenditure during the year - 947.

Expenditure upto end of this year. 947.
This work has almost been finished except flooring.

Improvements to the District Court House at Vizagapatam.

Estimate _____ Rs 1861.
Expenditure during the year _ 2231.
__Do__ upto end of this year __ 2231.

The Executive Engineer states that it was found necessary to do more work than estimated for.

Ganjam Division and
Rushikulya Division

Residence and Office for the Executive Engineer at Chicacole.

Estimate ____ Rs 3747.
Expenditure during the year. 3747.

This building was purchased from the Agent of the London Missionery Society for Rs 1250 and thoroughly repaired in accordance with the Sanction given in G.O No. 214. dated 7th January 84.

The Executive Engineer pays a rent of Rs 15½ for the portion of the building occupied by him as his residence.

Provincial
Communications
Vizagapatam Division.

Lotingha Ghat Road.

Estimate ____ Rs 4,56,581.
Outlay during the year. 5964.
__Do__ to end of this year. 4,34,639.

See remks. Part I (Para 3) of
This report.

Road from Potnighi to Koraput.

Estimate——— Rs 24,200.

Outlay during the year. 30,440.

—do— upto end of this year. 30,440.

No departmental Supervision was available to aid the Assistant Engineer till late in the year. Interruptions from fever were numerous the whole of the route lying through as feverish a piece of country as there is in India. The Assistant Engineer succeeded in procuring a large body of hill labor and operations were confined to breaking metal till December 86 when the Earth work of the road was commenced at the Potnighi end. Steps were taken to provide shelter at intermediate points between Potnighi and Koraput in order to keep officers and subordinates healthy.

Surveying and Levelling Road from Koraput to Jagadalapur.

Estimate——— Rs 1500.

Outlay during the year - 812.

—do— upto end of this year - 1012.

Plans and surveys of 35 miles beyond

Koraput towards the Central Provinces completed. There are upwards of 100 miles still to be done in very unhealthy and troublesome country.

Repairs

Maintenance of Potnighi Ghat Road

Grant ——— Rs 18170.

Outlay during ——— 18691

Roads maintained in fair order.

The damages done to the road owing to the heavy rains last autumn were all repaired.

Godavari Eastern Division

The Navigation works at Dumagudiem were maintained at a cost of Rs 7982 during the year.

Incorporated Local Funds

Communications

Godavari Eastern Division.

Kovur - Munjair Junction Canal

Estimate ——— Rs 145,525.

Expenditure in 1886-87 — 11630.

—do— to end of 1886-87 — 140,855.

About Rs 6000 were left unexpended from the grant Rs 17,663, pending receipt

of a revised Estimate from the Executive Engineer.

Iron Lattice Girder Bridge at Venkatakrishnapuram Lock on the Samulkota Canal.

Estimate ——— Rs 5,550.

Expenditure in 1886-87 — 142

Do to end of 1886-87 — 5431

This bridge was completed and opened for traffic during the year.

Excluded Local Fund.

Mis: Pub: Improvements

Ganjam and Rajahmundry Divisions

Progress of works.

Constructing an Iron pier at Gopalpore.

Estimate ——— Rs 230,903.

Outlay in 1886-87. — 108,547.

Do to end of 1886-87 — 211065.

70 Bays were completed upto the end of March 87 against the Estimate of 93.

Revised Estimate for Rs 305,000 was sent with my letter No. 125 G N dt 4th May 87

Godavari Eastern Division

Setting up new fourth order dioptric Light at the Hope Island Light

House.

Estimate ——— Rs 954.

Outlay in 1886-87 — 1031.

Do to end of Do — 1031.

Work was completed.

Vizagapatam Division

The 2d Class order Light for the Santapally Light House was unpacked and set up at a cost of Rs 308. Several glass panes and prisms were broken during transit and they are being replaced by the Marine Department.

A new Lightning Conductor has been ordered from the P. W. Stores Madras.

Supg Engrs Office
Dowlaishwaram
30th May 1887
Dispd 30th May 1887

C. Lewis
Superintending Engineer
1st Circle

JK

To accompany Letter
№ 76 G L dated
30th May 1887 to
Chief Engineer P.W.D.

Enc: 1
P/4182/87

Administration Report
General Buildings and
Roads Branch
for the year
1886-87.

No. 76 G. L.

FROM G. Y. Walch Esqre
~~THE~~ SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO
THE CHIEF ENGINEER
P. W. Department
~~FOR IRRIGATION.~~

Enclosure one.

DOWLAISHWERAM, 30th May 1887.
Despd 30th May 1887

SIR,

I have the honor to forward herewith the Administration Report (2 parts) for this Circle for 1886–87.

I have the honor to be
Sir
Your most Obedt Servt
G. Y. Walch
Supg: Engineer 1st Circle

JK

P.W.C. No. 4182

FROM G. T. Walch Esquire
~~THE~~ SUPERINTENDING ENGINEER
FIRST CIRCLE.

TO

THE CHIEF ENGINEER

~~FOR IRRIGATION.~~
P. W. Department

DATED 30th
DESPATCHED 30th May 1887
RECEIVED 31.5.87

No. 76 G.L.

ENCLOSURES. One

Administration Report
General Branch for
1886-87.
Forwards the ——

H.C.
Please have
all these Current
Entered on a
proceedings
form and
"Recorded"
HB
Clear
Done up
Ch
23-7-87

Madras Harbour Works

Administration Report for year 1886-87

Although the progress made on the Harbour Works was much less than was hoped for, yet a limited still considerable advance was accomplished during the past financial year, and the new system of building and protecting the walls was thoroughly started.

1 The superstructure of the North Pier was advanced by a length of 445 lineal feet, 625 concrete blocks having been used for this purpose, all throughly bonded together, and secured by iron cramps to one another.

2 In addition to this work 828 blocks representing 24382 tons of concrete were deposited in the wave breaker on the sea side of the North Pier.

3 In the rubble foundations 98,560 tons of stone were deposited during the year.

4 The South Pier superstruction was advanced by a length of 300 feet; 383 blocks being used

Chairman

in the construction. There were also 552¼ blocks placed over the sides to form the wave breaker, & 16,242 tons of stone were deposited in the foundation. Much difficulty was experienced at the South Pier, by old blocks of the former rejected work, being thrown into the line of new foundations; but many of these blocks have been removed, in a complete state and are now deposited in the wave breaker at each Pier.

4 Concrete blockmaking went on fairly well during the year, and 2151 blocks of different shapes were made; but the full speed of blockmaking was not attained in any one month.

5 From Pallavaram quarries 2,01,451 tons of stone were received in the year under review, and the work at the quarry was kept up to the required degree of speed on the whole. In December 1886 the contractor for this branch of the work died suddenly, and up to this present date no one has come forward with power to settle claims due to the late contractor's estate. A new contractor has been appointed by the Harbour Trust Board.

8 The expenditure during the past financial year has been Rs 8,14,798 divided as below.

Works	Rs	7,93,359
Establishment	"	68,321
Tools & Plant	"	70,664
		9,32,344
Deduct debits to suspense heads of account	Rs	1,17,546
Net Expenditure	Rupees	8,14,798

The grant for the financial year was Rs 10,19,100.

9 On May 23rd and on November 8th & 9th two severe cyclones passed near Madras, and passed very high seas. No damage was done to the Works however, but the storm of November caused serious encroachments of the seas at Royapuram washing down a portion of the wall of the enclosure of the Bidrn Home for sailors.

10 On May 23rd two native vessels were totally wrecked, and some of the crews on the Works behaved very gallantly in rescuing the crews, for which acts they were rewarded with silver medals by the Harbour Trust Board.

11. One notable event during the year was the transfer on June 1st of the works from Government to the Harbour Trust Board under whose control the Works now remain.

Madras Harbour Office
24th June 1887

(Sd) J. W. Throwgood.
Superintendent
Madras Harbour Works

(True Copy)

(Signature)
Secretary
Harbour Trust Board

L. 1
P.W. 4896/87

HARBOUR TRUST BOARD
28 JUN. 87
MADRAS.

V. & Co.,
Printers.

Harbour Trust Board Office,
MADRAS, 27 June 1887.

No. 1390

FROM The Hon'ble R. W. Barber C.S.
CHAIRMAN, HARBOUR TRUST BOARD,
MADRAS,

TO Captain W. L. C. Baddeley R. E.
Under Secretary to Government Public Works
Department.

SIR,

I have the honor to acknowledge the receipt of your reminder No 2061C dated 21st June requesting that the administration report of the Madras Harbour Works for the official year 1886/87 might be expedited.

2. This report dated 24 instant was received from the Superintendent on the 25 idem, and I herewith enclose a copy for your information. A copy has also been forwarded to the Chief Secretary to Government Marine Department.

I have the honor to be
Sir
Your most obedt Servant
W Barber
Chairman

In 2061C 21. 6. 87.

PWC № 4896

(1)

By 25.6.87

Ex. I

2258 W 23-8-87

Received

C. a. W.

16/87

Ll. 95. VI
M. 23.7.87

PUBLIC WORKS DEPA

Wo 2258 CW

B/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 28th August/87

READ the following

From the S. E. I. Circle No. 76. G. L. dy 30th May/87
" — " — " — II — " — " — — dy 25th May/87
" — " — " — III — " — " — — dy 9th May/87
" — " — " — IV — " — " — 225/BW dy 30th May/87
" — " — " — Do — " — " — 237/BW dy 3d June/87
" — " — " — V — " — " — 1427 dy 25th June/87
" — " — " — VI — " — " — 71. C dy 3d June/87
" — " — " — Do — " — " — 78 R. N. dy 17th June/87
" — " — Consg: Archt: to Govt. — " — 259 dy 25th May/87
" — " — Chairman. H. T. Board — 1390 dy 27th June/87

+ Letter for C/E=1834=23-5-87

23.8.87

Recorded.

No

Original file relating
to Drury Report
1886-87

No. 2258 W of 23. August 87

B