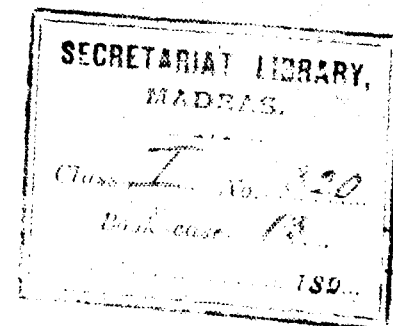




REPORT

ON THE

ADMINISTRATION

OF THE

PUBLIC WORKS DEPARTMENT,

Buildings and Roads and General Branch,

MADRAS PRESIDENCY,

DURING THE YEAR

1876-77.

. A.S.O. (A)
1456

MADRAS:
PRINTED BY E. KEYS, AT THE GOVERNMENT PRESS.

1877.

CONTENTS.

PART I.—GENERAL.

	Page
Functions of Department	1
Divisions of Works	1
Services of Grants	2
Provincial Works	3
Local and Special Works	3
Workshops	4
Divisions of Establishment	4
Cost of Establishment	6
Tools and Plant	6
Execution of Works	6
Changes in the Department	7
Grants and Outlay	7

PART II.—BUILDINGS, ROADS, &c.

IMPERIAL, MILITARY—

Works in Ganjam	10
Works in Bellary	10
Barracks	11
Works at Presidency	11
Works in Chingleput	11
Poonamallee Hospital	11
Works in Bangalore	12
Works in Trichinopoly	12
Works in Nilgiris	12
Wellington Barracks	12
Works in Malabar	13

IMPERIAL, OTHER SERVICES—

Works in Nellore	13
Do. North Arcot	13
Do. Madura	13

IMPERIAL, MISCELLANEOUS—		PAGE
Works in Godavery	...	13
Coal-boring Operations	...	13
Works at Presidency	...	13
Madras Harbour Works	...	13
PROVINCIAL, CIVIL BUILDINGS—		
Works in Ganjam	...	15
Do. Vizagapatam	...	15
Do. Godavery	...	15
Do. Kistna	...	15
Do. Nellore	...	15
Do. Cuddapah	...	16
Do. Kurnool	...	16
Do. Bellary	...	16
Do. Presidency	...	16
Do. North Arcot	...	17
Do. South Arcot	...	17
Do. Salem	...	17
Do. Tanjore	...	18
Do. Trichinopoly	...	18
Do. Coimbatore	...	18
Do. Nilgiris	...	18
Do. Malabar	...	18
Do. South Canara	...	19
Do. Madras	...	19
Tirumal Naick's Palace	...	19
Works in Tinnevely	...	19
PROVINCIAL COMMUNICATIONS—		
Works in Ganjam	...	19
Chilka Lake	...	19
Works in Vizagapatam	...	19
Potinghy Ghaut	...	19
Works in Nellore	...	19
East Coast Canal	...	19
Works at the Presidency	...	20
Hospital Bridge	...	20
Junction Canal	...	20
Works in Coimbatore	...	21
Do. Nilgiri	...	21
Do. Madras	...	21
Gondalur Ghaut	...	21
New Palni Ghaut	...	21
PROVINCIAL, MISCELLANEOUS—		
Works in Ganjam	...	22
SPECIAL—		
Works in Godavery	...	22
Do. Nellore	...	22
Do. Cuddapah	...	22
Do. South Arcot	...	22
Do. Tanjore	...	22
Do. South Canara	...	22

APPENDICES.

	PAGE
APPENDIX A	25
APPENDIX B	29
APPENDIX C	35
APPENDIX D	38

PART I.

PUBLIC WORKS DEPARTMENT— GENERAL.

THE Public Works Department deals with all Engineering Functions of Works undertaken by the State, no matter for what department Department. or purpose required, the construction or repair of which has to be carried out under professional superintendence. It is the business of this branch of the Government Service to draw up, under the general instructions of the department concerned, detailed designs and estimates for all the public buildings and other engineering works required by any other department of Government, and, after the general arrangements proposed have been approved of, to carry out the works as soon as funds are made available to meet the estimated expenditure.

The Public Works Department is thus called upon to plan and execute works on behalf of all the different branches of the Administration;—for the Government of India;—for the Provincial Government;—for the various Local Fund Boards;—for the Board of Revenue and the Heads of other Departments, as Trustees of certain special funds which they administer;—for the Court of Wards;—and not unfrequently also for Municipal Corporations.

Imperial Works.—For the Imperial Government the Public Divisions of Works Department undertakes the construction and maintenance of the following works, which for convenience of account are classified as follows:—

- (a.) *Irrigation*, including all works in connection with Irrigation and River Conservancy.
- (b.) *Imperial*, sub-divided into
 - (1.) *Military*, including all works connected with the army, such as Fortifications, Barracks, Commissariat and Ordnance buildings, Military rest-houses, and Cantonment roads.

- (2.) *Other Services*, including all buildings and other works connected with the Postal, Telegraph, and Salt Departments, together with such Mining operations, Light-houses and other Public improvements as may be considered to be rather of Imperial than of Local interest.

Services of
Grants.

To meet the expenditure on these heads, grants are yearly made by the Imperial Government from the ordinary revenues of India and also from loans raised by the Imperial Government for the purpose of constructing reproductive works. These grants for the year 1876-77 amounted to Rupees 35,84,917 from Ordinary Revenue, and Rupees 4,26,282 from Loan Funds.

The whole of the latter grant was for Irrigation works, and of the former grant Rupees 28,63,750 were for Irrigation and River Conservancy, Rupees 6,53,000 for Military Services, Rupees 68,167 for the other Imperial Services. Against these grants from the ordinary revenues, the outlay amounted to Rupees 26,47,662 on Irrigation and River Conservancy, Rupees 7,24,778 on Military Works, and Rupees 21,074 on all the other Imperial Services.

Irrigation Works.—By far the most important works carried out by the Public Works Department on behalf of the Government of India are those connected with irrigation and the conservancy of rivers. The expenditure on these works, some of which are on a scale surpassed in no country in the world, is met, as stated above, partly from the ordinary Imperial revenues and partly from loans. Grants from Loan Funds, however, are made only for the construction of such irrigation schemes as give a reasonable promise that the works will yield a return at least equal to the interest of the money laid out upon them, and for all such works quasi-commercial accounts of capital and revenue are maintained. At present only the 8 following works are included in this category, viz.:—

- | | |
|--------------------------|--------------------------|
| 1. Godavery Delta Works. | 5. Palar Anicut. |
| 2. Kistna Delta Works. | 6. Pelandorai Anicut. |
| 3. Pennair Anicut. | 7. Cauvery Delta Works. |
| 4. Chembrambakam. | 8. Streeviguntam Anicut. |

During the year 1876-77 the grant from Loan Funds for the construction of these reproductive irrigation works, or as it is technically called, the grant under '*Capital Extraordinary*,' was Rupees 4,26,282 of which Rupees 2,85,887 were expended.

For the construction of similar works a grant was also made from the ordinary revenues of India. This grant, technically

called the grant for '*Capital Ordinary*,' amounted in 1876-77 to Rupees 1,65,425, against which there was an outlay of Rupees 91,330.

For '*Revenue*' expenditure, i.e., for small extensions or improvements to, and for the maintenance and repairs of these works, Rupees 8,04,943 were allowed from the ordinary revenues, of which Rupees 7,79,939 were expended.

The expenditure on the construction and repairs of all the other works of Irrigation for which Capital and Revenue accounts are not kept, and of all works of River Conservancy, is met, as before stated, wholly, from the ordinary revenues. The grant for such works, called the '*Ordinary Agricultural*' grant, was Rupees 18,93,382, against which there was an expenditure of Rupees 17,76,393. Viewed as a whole, the grant from Ordinary Funds for Irrigation works was Rupees 28,63,750, compared with an expenditure of Rupees 26,47,662.

Provincial Works.—For the Provincial Government, the Public Works Department constructs and repairs all buildings in connection with the Judicial, Revenue, Customs, Police, Educational, Jail, Medical, Marine, and Ecclesiastical Departments; as well as all navigable canals not forming part of a system of irrigation channels. To these may be added a few roads, and all works connected with the improvements, water-supply and drainage of towns other than Municipalities; with harbours; and with the light-houses required for the purely local coasting trade.

The expenditure from Provincial Funds on Public Works, however, in a great measure takes the form of grants-in-aid to the several Local Fund Boards, which have charge of all the roads in the Presidency, with the exception of a few roads leading up to the hills, which are considered to be of Provincial rather than of Local importance.

During the year the total grant from Provincial Funds on account of Public Works was Rupees 16,60,420, of which Rupees 2,43,390 was the aggregate amount of the grants-in-aid to the Local Fund Boards. The expenditure incurred against this grant was Rupees 19,84,543.

Local and Special Works.—The work executed by the Public Local and Special Works Department on behalf of the Local Fund Boards consist chiefly of the construction and repair of Roads, and occasionally of buildings in connection with Hospitals, Dispensaries, School-houses, and Travellers' Bungalows. The expenditure on these

works is met by grants from the Local Funds raised under Act IV of 1871, supplemented by the grants-in-aid from Provincial Funds before referred to.

Sums to defray the cost of similar works are further allotted to the Public Works Department by the Board of Revenue from special funds administered by the Board itself, such as the Canal and Ferry Fund, 'Jungle' Conservancy Fund, Pound Fund, Irrigation Cess, and other Funds, and also by the Court of Wards from the revenues of the estates under their charge.

The Public Works Department also execute various works, the cost of which is defrayed from the Port, Educational, Convict Labor, and Police Lodging Funds.

Workshops.

Taking all these allotments together, the amount placed at the disposal of the Public Works Department from Local and Special Funds, excluding the grants-in-aid from Provincial Funds, stood at the beginning of the year at Rupees 89,58,205. At the end of the year it stood at Rupees 44,30,899, out of which an expenditure took place of Rupees 40,03,114.

In connection with the Public Works Department are the Workshops at Madras, Dowlaishwaram, and Bezwada. These institutions are self-supporting; the prices charged on the work turned out being sufficient to meet all charges for labor, materials, and supervision, as well as for interest on capital and depreciation of the block.

The Public Works Establishment is divided into two distinct branches, the *Executive* and the *Accounts*, the former of which deals with the preparation of designs and estimates and with the supervision and execution of the works, and the latter with the control and audit of all the expenditure incurred.

Divisions of Establishment.

The Executive Branch is composed of (a) the *Engineer* Establishment of professional Engineers, composed chiefly of officers of the Royal Engineers and of Civil Engineers either trained at one of the Civil Engineering Colleges, or engaged from the Profession at home; (b) the *Upper Subordinate* Establishment, consisting chiefly of European Artisans, Mechanics, Clerks of works, and others, who have either been apprenticed to some trade, or who have received a professional training at one of the Civil Engineering Colleges; (c) the *Lower Subordinate* Establishment of native foremen carpenters, masons, and others, who have a practical knowledge of ordinary building work, and some slight knowledge of plan-drawing and surveying; (d) the *Petty* Establishment of Storekeepers, guards, lascars and other inferior

servants; and, lastly, (e) the *Office* Establishment of clerks, draftsmen, messengers, and others employed in the various offices.

The Accounts Branch is divided into the *Control* Establishment corresponding to the "*Engineer*" Establishment, and the "*Accountant*" Establishment of trained Accountants, corresponding to the *Upper Subordinate* Establishment of the Executive Branch.

In some of the other Provinces of India, the variety and magnitude of the engineering works thrown upon the Public Works Department have been found too great to be properly carried out by a single agency. The work required in connection with Railways was found to be of too special a nature to be dealt with by the ordinary staff of the department, while the magnitude of many of the irrigation works required a complete establishment of their own in order to cope with them at all. The Public Works Establishment was thus gradually separated into special branches; each branch being practically a separate branch of the Administration, with a complete Executive and Accounts Establishment of its own, dealing with a separate class of engineering works. In the Northern Provinces of India there may be said to be four such separate branches—Buildings and Roads, Military Works, Irrigation, and Railways—the former branch dealing with all works not special to the other three, i.e., all buildings, &c., connected with the Post Office, Revenue, Telegraph, Ecclesiastical, Educational, and Judicial Departments, as also all questions relating to Roads, Bridges, Navigable Canals, River Improvements, Accommodation for travellers, Harbour Improvements, Lighthouses, Mines, and Manufactures.

In this Presidency, this division of work has been only very partially carried out; a distinct Railway Branch has been formed with a separate Executive and Accounts Establishment of its own, but the further specialization of the rest of the Public Works Establishment is carried no further than the Secretariat, and there only partially. There are two Chief Engineers and Secretaries, one of whom deals with all questions in connection with Irrigation, while the other has charge of all Buildings and Roads and Military Works.

The Public Works Establishment maintained in the districts is employed indifferently in the general execution of all the works entrusted to the Department, the service of each Officer being utilized in the best way practicable in carrying out the works,

PUBLIC WORKS DEPARTMENT.

Statement of Outlay as compared with the Final Grants during the year 1876-77.

	Final Grant.	Outlay.
IRRIGATION.		
<i>Capital Extraordinary.</i>	Rs.	Rs.
Works	2,65,649	2,02,012
Establishment	94,754	1,00,052
Tools and Plant	49,150	15,568
Fluctuations in Suspense Balances	16,729	18,462
Receipts on Capital Account		* 50,202
	4,26,282	2,85,887
<i>Capital Ordinary</i>		
Works	82,458	40,754
Establishment	52,548	48,248
Tools and Plant	34,485	32,777
Fluctuations in Suspense Balances	13,272	5,073
State Outlay on Guaranteed Irrigation Works	9,226	4,998
Receipts on Capital Account		20,374
	1,65,425	91,330
<i>Revenue.</i>		
Extensions and Improvements	40,538	88,169
Maintenance and Repairs	4,63,359	4,46,098
Establishment	2,28,846	2,22,279
Tools and Plant	77,200	78,898
	8,04,943	7,79,989
<i>Ordinary Agricultural.</i>		
Original Works	4,04,256	3,42,084
Repairs	10,80,046	10,10,285
Establishment	4,84,755	8,98,493
Tools and Plant	24,325	30,242
Fluctuations in Suspense Balances		889
	18,93,382	17,76,898
IMPERIAL.		
<i>Military.</i>		
Original Works	3,32,028	2,90,575
Repairs	2,41,770	2,32,856
Establishment	1,57,000	1,62,822
Tools and Plant	15,000	25,367
Fluctuations in Suspense Balances	92,798	18,758
	8,38,596	7,24,778

* Including Rupees 50,000 refund from Provincial Grant.

PUBLIC WORKS DEPARTMENT.

Statement of Outlay as compared with the Final Grants during the year 1876-77—(Continued).

	Final Grant.	Outlay.
<i>Other Services.</i>	Rs.	Rs.
Original Works	38,299	29,753
Repairs	5,709	2,573
Establishment	22,199	20,202
Tools and Plant	1,960	3,389
Fluctuations in Suspense Balances		76,991
	68,167	21,074
Total Imperial and Irrigation. { Extraordinary	4,26,282	2,85,887
{ Ordinary	37,70,513	33,51,866
	41,96,795	36,37,253
PROVINCIAL.		
Original Works	7,54,706	9,02,042
Repairs	3,87,058	* 3,79,673
Establishment	4,85,579	† 5,39,598
Tools and Plant	83,887	1,27,605
Profit and Loss		1,841
Fluctuations in Suspense Balances	50,810	33,784
Refund to Extraordinary Grant	50,000	50,000
	17,10,420	20,34,543
LOCAL AND SPECIAL.		
Original Works	16,82,064	14,01,184
Repairs	19,66,308	18,22,059
Establishment	7,42,271	7,43,559
Tools and Plant	40,241	36,198
Profit and Loss		114
	44,30,889	40,08,114
Grand Total for the Presidency	1,03,38,114	96,74,910

* Includes Rs. 1,94,712 Contribution to Local Funds.

† Includes Rs. 48,678 do. to do.

PART II.

PUBLIC WORKS—BUILDINGS,
ROADS, &c.

THE order of review of the works under this branch of the department is as follows:—

Imperial, Military, Other Services, Miscellaneous.

Provincial, Civil Buildings, Communications, Miscellaneous.

Special.

In Appendix D will be found the estimates for each work noticed hereafter, and the actual sum spent to complete them. During the last half of the year under notice, public works were carried on with much difficulty, owing to the sickness and distress which prevailed more or less in every district of the Presidency. In the Ceded Districts, in Chingleput, and in Nellore, the famine was felt most keenly, and in those districts numerous works were entered upon which will not be mentioned in this report, as they were mostly petty irrigation or road works. But several of those districts in which no actual famine relief operations were in progress are reported by the District Engineers to have suffered much from scarcity, or to have been afflicted by virulent disease, so that many works were entirely deserted by the laborers employed on them.

Works in
Ganjam.

IMPERIAL, MILITARY—GANJAM.—The Rifle Range at Berhampore, which was constructed in 1875, was during the present year converted into an eight hundred yard Range. The rocky nature of the ground caused some little trouble; blasting had to be extensively employed, and the original cost of the work was in consequence much increased. In July a revised estimate of Rupees 2,987 was sanctioned by Government. The earthwork was at the close of the year completed, one of the culverts was built, and the other half finished. A latrine was attached to the Berhampore Military Hospital at a cost of Rupees 356.

Works in
Bellary.

BELLARY.—In December 1873 it was determined to add a block of barracks and a band barrack to the existing blocks

occupied by European Infantry. The estimates for these additions amounted to Rupees 58,000 and Rupees 37,600 respectively. The designs were prepared to harmonize with the buildings already erected. The verandahs were roofed with a light description of the ordinary terrace, adopted in preference to the Bengal sloping terraces which were found apt to leak. These important additions were fully completed, and handed over to the Military authorities. The construction of the European Infantry Canteen, sanctioned two years previously, and intended to complete the requirements of the European troops stationed in that Cantonment, was commenced, and the sum of Rupees 5,325 provided for the work utilised. It was found impracticable to give more funds, and the work had to be stopped in September, by which time the superstructure had been raised to a height of five feet, and a large quantity of materials collected. The work of constructing a Recreation Room at an estimated cost of Rupees 27,380 had for the same reasons to be abandoned, after some progress had been made. Iron pipes were added to the Artillery Plunge Bath to secure a better supply of water. The verandah roofs of the Royal Artillery Barracks were found to be in a very unsafe state, the palmyra rafters of which they were composed having been attacked by white-ants; an estimate for re-roofing them was sanctioned in December, the work at once set in hand, and at the close of the year the verandahs of two blocks had been re-roofed. In lieu of the old Magazines in the Native Infantry Quarters, which were not large enough to hold the prescribed quantity of ammunition, two new Magazines were built in accordance with the standard design.

PRESIDENCY.—A number of Military New Works, none of them of very great importance, were in various stages of progress at the end of the year, comprising a well and a trough attached to the Bullock lines of the Commissariat Department, two smith's sheds at the Gun Carriage Factory, and traverses round the Veysarpaudy Expense Magazine (which work will be found mentioned in another part of this Report), with other minor undertakings.

CHINGLEPUT.—The gun platform connected with the butts for the new 8-inch gun at St. Thomas' Mount, the completion of which in the previous year was delayed for the want of iron suited for rammers, was during the year under review handed over to the Military Authorities. In June an estimate for building a new double-storied hospital at Poonamallee to hold ninety patients, with out-houses, forming one of the items of the

comprehensive proposals of a Committee assembled to report upon the requirements of that Military Station, was submitted for the sanction of the Government of India. Sanction having been granted, work was commenced in September, and very good progress had been made by the close of the official year over forty-four thousand Rupees having been expended.

Works in
Bangalore.

BANGALORE.—The following works in Bangalore were completed in the year under review: the recreation room and the canteen of the Parade Barracks and the European portion of the Main Guard Latrine; the Armourer's Shop for Native Infantry at the French Rocks, and a School House for a Regiment of Native Infantry. Gates were provided to the Gun Shed of the Royal Horse Artillery. A Sewer from the Parade Barracks was constructed, and a compartment added to the Magazine of the "Queen's Own" Sappers and Miners, while several new wells for the supply of water to the troops were sunk, and large pits were dug in the tanks in the station. Some necessary additions were made to the Serjeants' Mess House of the Royal Artillery Barracks. The Garrison Gymnasium was commenced, but the work was afterwards stopped under orders from Government. Several minor new works were executed, and the necessary repairs to various Military buildings were attended to.

Works in
Trichinopoly.

TRICHINOPOLY.—The verandahs of the European temporary Barracks were renewed during the year, and a cut-stone flooring to the fourth block of the same barracks was completed. An Armourer's Shop for a Regiment of Native Infantry was also constructed.

Works in
Nilgiris.

NILGIRIS.—The fourth block of the Wellington Barracks was completed during the year. The building accommodates 152 unmarried Soldiers. It is upper-storied, built of burnt brick-in-mortar, plastered, supplied with teak-wood glazed doors and windows, floored with teak and granite, roofed with teak-wood trusses, rafters, ridders, and flat and pan tiles, the verandahs being terraced. It consists of four large Barrack-rooms 130×21; eight Serjeants' rooms 24×10; four cook-rooms 21 feet×12; four night latrines 12×9½ with front back verandahs, upper and lower-storied 350 feet×12 feet. Its out-buildings of latrines on the dry-earth system, wash houses, and urinals are very complete. It has cost close upon a lakh and-a-half or about 986 Rupees per man housed. Lightning conductors have been fitted to the whole of the Wellington Barracks at a cost of 6,300 Rupees, for which 7,000 running feet of copper rope with 80 copper points fixed to the building by 960 gunmetal hold-fasts

have been completed. The electric current has been observed to pass down one of the conductors without injury to anything.

MALABAR.—A swimming-bath cut out of a flat laterite rock close to the sea, so arranged that the rise and fall of the tide in turn fill and empty it, was commenced for the use of the European Infantry Regiment stationed at Cannanore. Covered passages from the barracks to the latrines and wash-houses were built, and instead of the original laterite flooring of the cook-rooms, granite laid in cement was substituted; a plan which while it ensures greater durability to the floors admits of their being easily cleansed.

Works in
Malabar.

Considerable improvements were effected to the general drainage of the European Barracks, the sections of which were altered, all covered drains being removed and replaced by open drains. The floors of the bath-rooms to the European Hospital at Cannanore were asphalted. The floors of the West Hill and Malliapuram Barracks and Hospital were also asphalted and reboarded where necessary, at a cost of seven thousand and five thousand rupees respectively.

IMPERIAL, OTHER SERVICES—NELLORE.—A Post Office was built at Gudur at a cost of Rupees 1,068, and materials for the Police lines to be constructed at Dugarasapatam were collected.

Works in
Nellore.

NORTH ARCOT.—A Post Office of the usual standard design was erected at Ramgoontah for a little more than seventeen hundred Rupees.

Works in
North Arcot.

MADURA.—An estimate amounting to Rupees 2,775 was sanctioned in February 1875 for the erection of a Post Office at Ramnad, and the building was handed over to the Postal Department this year, the anticipated cost having been slightly exceeded.

Works in
Madura.

IMPERIAL, MISCELLANEOUS—GODAVERY.—The coal boring operations were continued up to June, when the approach of the rains brought the work to a close. Holes were bored in the positions selected by the Geological Department, but without success, and the Government determined to postpone further attempts, leaving for future consideration the question of sinking a shaft at the spot where, in 1875, a seam of shaly coal was met with.

PRESIDENCY.—Great but not unexpected difficulties were met with in the summer of 1876 in the construction of the Madras Harbour Works. The Superintendent, Mr. James May, died in the month of May 1876, and there was some delay

Works at the
Presidency.

before a successor could be found. The Assistant Engineer, Mr. Beardmore, directed the operations until the arrival of Mr. Thorowgood, the new Superintendent, in this country. During May, June, and July, heavy surf prevailed, and the projection of the northern surf bank was carried out under great difficulties, the sea scattering the laterite as fast almost as it was laid down. This, however, was in some ways beneficial, for, as the rubble was dispersed on both sides, it eventually formed, as the work advanced, an effectual protection to the groyne itself. Another perplexing feature was the rapid accumulation of sand which collected on the south side of the groyne, until from the Madras Pier, reaching almost to the end of the advancing surf bank, there was a constantly increasing triangular expanse of sand, before which the surf breakers retreated; while on the northern side of the bank there was a corresponding encroachment on the part of the sea. In the month of August the depth of water in front of the works was found to have suddenly decreased, and the sand commenced to run round the end of the groyne. Mr. Parkes was summoned from England in October. On the return of the north-east monsoon the work was advanced with much more ease, the accumulation of sand being day by day hollowed out by the reversed action of the sea, due to change of wind and current, and by the end of March more than one-half of the accretion was swept away. A change from the original design was adopted by Mr. Parkes, concrete blocks roughly laid being used instead of laterite rubble for the portion of the groyne within surf limits, while, at the junction of the rubble bank with the concrete blocks, the slopes of the laterite were faced with small concrete blocks to ensure greater stability at this point. On the 31st March 297 feet of rough concrete blocks were laid, and the length of the northern surf bank from the shore advanced in all to a length of 1,175 feet. Preparations were also being made to start the southern bank, so as to prevent any further accumulation of sand within the harbour. A great number of concrete blocks were made during the year, and all the necessary machinery was set up. On the whole the progress of the works during 1876-77 may be considered satisfactory. The obstacles which presented themselves, and which at one time gave rise to not a little apprehension to the residents of Madras, were, as a rule, not unexpected. Mr. Frederick Bateman, C.E., whose advice was sought by the Secretary of State before he resolved to adopt the design of harbour proposed by Mr. Parkes, had given it as his opinion that the work would during its construction in all probability suffer

much damage from high seas and sudden storms, although its ultimate success was in his opinion not to be doubted.

PROVINCIAL, CIVIL BUILDINGS.—GANJAM.—No important works under this head were on hand during the past year. An additional building for the Registrar's office was attached to the Berhampore Tahsildar's Cutcherry, and the Cutcherry itself was enlarged and improved. A store shed was constructed at Calingapatam. The terraced roof of Berhampore Zilla Jail Hospital was converted into a tiled roof; the District Engineer states that it will be necessary to prepare a revised estimate for this work. A night latrine at the same jail was commenced, and one block finished. On the Hill Jail at Russelcondah, which last year was reported to be completed, a slight additional expenditure was incurred. The Police station House at Berhampore was handed over for occupation; and another station at Surady was in course of erection.

VIZAGAPATAM.—The commodious bungalow erected at Korapat for the Assistant Agent at a cost of about thirty thousand rupees, the workmanship and materials employed on which are stated by the District Engineer to be of fair description, was at the end of the official year completed. The Korapat Subsidiary Jail, which was originally in the hands of the Civil Department, made fair progress, but the work was mainly restricted to repairing ruined walls, and to putting affairs generally into better working order than had previously existed.

GODAVERY.—The only original work in progress in the District was the Range Office at Chattipett which was completed at an expenditure of Rupees 11,766, or slightly under the estimated cost.

KISTNA.—A new Taluq Cutcherry and Subsidiary Jail at Bezwarah, for which a revised estimate was sanctioned in December 1876, was built at a slight excess over the estimate of Rupees 24,644. Improvements to the Police Superintendent's office at Masulipatam were commenced and completed, and a double range office at Bezwarah was constructed at a cost of Rupees 7,354.

NELLORE.—Various additions and improvements to the Gadur Taluq Cutcherry were executed. The large Taluq Cutcheries at Atmakur and Rapur were completed, and the Cutcherry at Udiagiri only needed some trifling work to be finished before it could be handed over to the Revenue Officers. The Sub-Magistrate's Cutcherry at Venkatagiri made fair progress, but the funds provided during the year could not be

wholly spent, owing to sickness among the work people, and to the difficulty experienced in procuring skilled labor. A similar building at Sallarapett, sanctioned in 1874 for execution at an estimated cost of Rupees 12,830, was so far completed that the Sub-Magistrate was able to occupy it. The District Engineer considered that the new first class Taluq Cutcherry at Kanigiri would be finished by May or June, 1877. The Sub-Collector's Cutcherry at Ongole was completed, and the Nellore Police Hospital was handed over to the Police Department.

Works in
Cuddapah.

Cuddapah.—Three Taluq Cutcheries and Subsidiary Jails at Kadiri, Madanapalli and Jamalamadugu were on hand in the Cuddapah District, of which the last named was completed, and the others were well advanced; a revised estimate will, however, have to be submitted for sanction in the case of the Kadiri Cutcherry. At Kagipett a Police Station was built at a cost of Rupees 1,429, and another was in course of erection at Pullur. Some improvements were carried out to the Cuddapah Police Hospital.

Works in
Kurnool.

Kurnool.—Fair progress was made in the improvements and additions to the Collector's Cutcherry at Kurnool. The large Taluq Cutcherry at Koilguntla was approaching completion, the expenditure to the 31st March amounting to Rupees 54,521. The Court-house at Kurnool was re-roofed between April and June at a cost of Rupees 5,347. The operations of the year were much hindered generally by the difficulty of procuring labor, water, and carriage.

Works in
Bellary.

Bellary.—In this district the Sub-Magistrate's Cutcherry at Zemiganoor was completed, and in accordance with the wishes of the High Court, who decided to place the District Moonsiff at Pennakonda instead of Purgli, where he had formerly been stationed, the Gungamahal at Pennakonda was adapted for use as a Moonsiff's Court. In the autumn of 1874, in accordance with suggestions made by the Inspector-General of Jails, several changes from the original estimate for improving the Bellary Jail were submitted for the sanction of Government, which was accorded in November of that year. The revised estimate provided for the erection of ten wards to accommodate two hundred male and seventy-six female prisoners, with the necessary out-houses, cookroom, bathrooms and latrines, and at the end of the year under review the greater part of the work was complete. A belfry to the Roman Catholic Church at Bellary was set in hand in August 1876 and finished by the December following.

Works at
Presidency.

Presidency.—A large number of works were as usual on hand at the Presidency. The Public Works Department new

Stores and Workshops at the Seven Walls progressed rapidly during the year, and the establishments were able to remove from Chapank to the new buildings. The factory of the Workshops, and the Boiler and Engine-shed, which were satisfactorily completed, were executed by contract. The Government resolved to convert the old Workshops into offices for the Public Works Secretariat, and an outlay of Rupees 11,083 was expended with this object. Iron ship tanks were erected on the roof of the Revenue Board Office in order to provide water in case of fire. Earthen traverses and masonry drains round the Expense Magazine, Veysarpaudy, were in course of erection by famine labor. Mr. Chisholm, the Consulting Architect, having returned from furlough in August 1876, the several works which during his absence could not be completed, were recommenced and fairly advanced. The Senate House was with the exception of the ornamentation and furnishing completed, and the four large towers were raised to their full height. The Royapettah Palace was handed over to the Prince of Arcot; and the Laboratory at the Presidency College only awaited the completion of the hardware fittings to be ready for occupation.

North Arcot.—Two iron doors of the Punganoor lock-up were renewed, portions of the compound wall improved and a gateway provided, together with some other alterations which were carried out at a cost of Rupees 948. At the Central Jail at Vellore, the drainage was completed and one of the wards and the workshop enlarged.

South Arcot.—Moonsiff's Court-houses at Villapuram and Virdasbellum were completed and handed over to the Judicial Department. A Deputy Collector's Cutcherry at Trichalore, and the new Taluq Cutcherry and Subsidiary Jail at Trichalore, Police huts at Cuddalore, and Station-houses at the Old Town, Cuddalore, at Vallur, and at Oolurpet, and a bungalow and office at Trichalore for the Assistant Superintendent of Police, were under course of construction, and with the exception of the last-named building were almost or wholly completed.

Salem.—Police huts were built at the Central Jail at a cost of Rupees 9,719, and the Deputy Tahsildar's Cutcherry and Lock-up at Yercaud was completed.

Tanjore.—The following works were in progress in this district: the Vedarnam Deputy Collector's Cutcherry, which was completed; alterations and improvements to the Sub-Magistrate's Cutcherry at Tritrapoondy, which were almost finished; and an office for the Sub-Registrar at Nannilam, which owing to delay on the part of the contractor, was not wholly built.

Works in
Trichinopoly.

TRICHINOPOLY.—With the exception of huts for Police Constables at Kelattur, and Valanad, and a Station-house at Voitalai Anicut, completed, and another Station-house at Valanad, in progress, there were no works on hand in the Trichinopoly District requiring notice.

Works in
Coimbatore.

COIMBATORE.—Improvements to the buildings attached to the Collector's Cutcherry were carried out at a cost of Rupees 1,270. A block of four cells for lunatic convicts was built in the hospital yard, and a similar block in the solitary cell-yard of the Coimbatore Jail, for the reception of convicts condemned to death. Huts for the accommodation of five Police Constables were constructed at Metapolliem, and for four Constables at Shambully; the latter work was not quite finished. The quarters for the Inspector of Police at Collegal were completed this year.

Works in
Neilgherries.

NEILGHERRIES.—A substantial timber railing 600 yards in length with gates and ornamental brick pillars, enclosing the grounds round Saint Thomas' Church at Ootacamund, was constructed during the year. Of the additions to the Government Office at Ootacamund, described in last year's Administration Report, the whole of the ornamentation has been finished, and that portion of the work now completed shows that great care has been bestowed upon it.

Works in
Malabar.

MALABAR.—Station-houses at Irukur and Kanoth were built and handed over to the Police Department. Progress upon the Sub-Registrar's Office at Nadaparam was retarded to some extent by an out-burst of cholera in the locality. The Deputy Collector's Cutcherry at Manantoddy was at the close of the year still unfinished, this delay being accountable, according to the District Engineer, to the unavoidable but frequent changes in the personnel of the department, and to the prevalence of virulent cholera in the village. It was expected that the building would be fit for occupation by the 1st August 1877. Similar delay, due again to the latter of the causes just mentioned, occurred in the cases of the Police Inspector's bungalow at Manantoddy and the Station-house at Pannamaram, both of which works were deserted by the work people, who fled before the disease, and could not be induced to return. At Kuttai and at Puttamby Station-houses were completed.

Works in
South Canara.

SOUTH CANARA.—The Deputy Tahsildar's Cutcherry at Hosdroog was enlarged to accommodate the Sub-Registrar; the roof of the Sub-Judge's Court-house at Mangalore was renewed, and a Police School for the use of Constables at Mangalore was constructed. The other works in progress under this head require no mention.

MADURA.—Ten compartments of the Collector's Cutcherry at Madura were so far advanced as to be fit for occupation, and the Court itself was completed. Several works connected with Tirumal Naick's palace were on hand, under the supervision of the Consulting Architect. Rupees 1,433 were spent upon the Taluq Cutcherry, and four compartments were completed. Screen-walls to the District Moonsiff's Court were built, and good progress was made with the Taluq Cutcherry at Pennakondah. A Taluq Cutcherry at Pulney, which was approaching completion, Station-houses at Cumbum, Bodinaicknair, Culpatty and Naricooty, the three last of which were handed over to the Police, and a Sub-divisional Office at Pereacolum, were the other chief works of importance in progress.

TINNEVELLY.—The principal works completed during the year were Police Constables' huts at Sathur, Viziapathi and Kuthanguli, and Station-houses at Vembacotta and Manur.

PROVINCIAL COMMUNICATIONS—GANJAM.—The progress of the Canal from Chilka Lake to the port of Ganjam, upon which work at the beginning of the year under review some fifteen thousand Rupees had been spent on an estimate of Rupees 1,41,370, was to some degree retarded by the high level of water in the lake, augmented by heavy rains, and a farther expenditure of Rupees 17,284 was incurred.

VIZAGAPATAM.—The work on the new Pottinghy Ghant approach to the Jaipur country was carried on under difficulties, as the supply of labor available is small, and the supervising establishment employed is not as efficient as could be wished. During the monsoons of 1876, and the first quarter of 1877, in which there was an unusually heavy rainfall, many revetments gave way, and a large landslip occurred in the first mile of the ascent; and at the end of the year work was almost at a standstill owing to the prevalent fever and cholera.

NELLORE.—The most important communications in progress in the Nellore district were the extensions of the East Coast Canal. For that part of the canal projected to extend from Dugarazapatam to Krishnapatam an estimate amounting to Rupees 2,87,000 was sanctioned in 1873, and the work of excavation actually commenced so far back as 1863, but in the autumn of the next year was suspended—to be recommenced in 1873. In 1875 this section of the canal was opened for traffic, and the few drainage works necessary for its entire completion were executed in the year under review. The section from Krishnapatam to the Penner River was estimated to cost Rupees 2,74,000, and an estimate for

that amount was sanctioned in January 1876. Fair progress was made upon this work till the winter of 1876, when the Government resolved to draft the famished population of Nellore and the Ceded Districts to work on the Canal. It was expected that ere long a hundred thousand coolies would be engaged on this project, but these anticipations were not realized. It was found that the intending immigrants from Kurnool and Cuddapah for the most part never reached the Canal, preferring to seek employment upon the many petty relief works that had at first necessarily been set in hand, and which they came across *en route*. In consequence of this, Government ordered the discontinuance of most of these minor unimportant relief works in the Nellore and other districts, and special arrangements were made to facilitate the safe journey to the Canal of immigrants from the Ceded Districts. At the close of March 1877 the numbers employed on the East Coast Canal were steadily increasing, in spite of the prejudice which appeared to exist among many of the natives against working upon it. The total length of the section from the Kundluru to the Ponner is $24\frac{1}{2}$ miles, of which 8 miles had in previous years been excavated, while at the close of the year $19\frac{1}{2}$ miles in all were completed, or 109 miles open for navigation from Madras. The appropriation of a lakh and a half of Rupees was exceeded by Rupees 21,653, to be afterwards adjusted against famine funds.

Works at the
Presidency.

PRESIDENCY.—The widened Hospital Bridge was opened for traffic during the year. The original design for widening the Bridge at both sides having, by the advice of the Chief Engineer, been abandoned, a new design by which the required width was added only on one side was adopted, and the revised estimate was submitted to, and received the sanction of, Government in December 1876. To give employment to the distressed Wudder community of Madras during the continuance of the famine, it was resolved to set in hand the long-projected Junction Canal between the Cooum and Adyar rivers, an important link in the East Coast Canal communications which could not be executed in previous years for lack of the necessary funds, but the necessity of which had been strongly advocated by Sir Arthur Cotton and other able Engineers. Its construction will remove the only obstruction that existed in a line of inland navigation which, when completed, will connect the Godavery, Kistna, and their numerous navigable channels, with the Nellore, Madras, Chingleput, and South Arcot districts. Good progress was made before the close of the year upon this work, which was only begun about the middle of January 1877.

149
COIMBATORE.—The only communications, the cost of which was borne by Provincial funds in this district were the road from Malliempolliem to Kudumudi, and from Metapolliem to Kullar. The former road was approaching completion at the close of the year. Works in Coimbatore.

NILGIRI.—The several ghauts and roads in this district were maintained in good order, and the Kandall Bazaar Road in Ootacamund was thoroughly metalled. Works in Nilgiri.

MADURA.—The Goodaloor Ghaut Road was in fair order at the close of the year, almost all the rocks within the road limits having been blasted, and revetments built in the steep and dangerous spots. The trace of the new Pulney ghaut was successfully completed, the crowning feature of the line being that, while but a little longer than the old steep approach to the hills *via* Periacolum, the foot of the ghaut has been well thrown forward into the low country, which is reached by easy gradients, only in three instances for short lengths exceeding one in nineteen. The portion of the new ghaut from Kodicanal to the Neutral Saddle was opened to cattle traffic on the 6th July 1876. The upper three miles are nearly completed to a width of fourteen feet, and the opening of the trace to the plains to "Bridle-path" is well in hand. The foot of the ghaut strikes the plains about four miles north-east of Davadanaputti, the junction with the main road being effected at Batlagoondah. Heavy blasting and revetting will be required to make the last seven miles passable for cattle. When once the road is properly opened out, the precipitous and dangerous old Panaical Ghaut will be at once superseded. The result of the year's work may be summed up as follows: the upper and lower Pulneys are now gained by a ghaut of easy gradients; the communications from Vilputty, Maohoor and Moogalore to the plains have been greatly facilitated by the opening of the bridle path between Neutral Saddle and the Pannikad Ghaut; and several valleys which have been abandoned for years now bear signs of terracing and cultivation. The work of dredging out Paumben Channel was continued, 117,257 cubic feet of debris being removed, and 71,053 cubic feet of stone raised. The depth of the channel at high tide is now fourteen feet, but greater depth cannot be procured by the available means; a steam dredge is required to effect much improvement. A dredge is now under course of construction at Paumben, which will cost some thirteen thousand Rupees, and the materials for which have been mostly collected. Works in Madura.

The roads which during the past year were constructed by, or the cost of whose up-keep will be provided from, Local Funds will receive notice in the reports of other departments.

Works in
Godavery.

PROVINCIAL, MISCELLANEOUS—GANJAM.—A light was fixed at the top of the Calingapatam Obelisk. A signaller's room at Calingapatam, which at the close of the previous official year was approaching completion, could not in the year under review be wholly erected owing to the difficulty of obtaining timber at this part.

Works in
Bellare.

SPECIAL—GODAVERY.—A lighthouse was under course of construction at Vakalapudi. The foundations and basement were completed, and almost all the needful materials collected. It was expected that the building would be executed by the autumn of 1877.

An estimate for constructing a subsidiary jail of two wards with out-houses and for alterations to the Tahsildar's Cutcherry at Kavali, amounting to Rupees 8,110 was sanctioned in the autumn of 1874. At the close of the year under review the work was completed. Good progress was made with the subsidiary jail at Kondukur, and the walls of the main buildings and the out-houses were built, but the actual completion of the jail was delayed by the want of timber for the roof. The same difficulty with the same result of delaying the building, was experienced at Podilla, where a subsidiary jail was under construction at an estimated cost of Rupees 9,500, exceeded however in anticipation of an increased allotment, which could not be provided by Government.

Works in
Cuddapah.

CUDDAPAH.—Improvements costing Rupees 4,650 were carried out to the Zillah Schoolhouse at Cuddapah, the Bengal terraced verandah having been removed, and corrugated iron with teakwood planking substituted, and the outward appearance of the building is said to be much improved.

Works in
South Arcot.

SOUTH ARCOT.—The Deputy Tahsildar's Cutcherry and subsidiary jail at Ulundoorpett which had been in progress since 1873 was at the close of the year under review nearly ready for occupation.

Works in
Tanjore.

TANJORE.—The additions and improvements to the Provincial College, Combaconum, sanctioned in 1874, were completed at a saving of about sixteen hundred rupees upon the estimate of Rupees 58,000.

Works in
South Canara.

SOUTH CANARA.—The project for fixing the mouth of the Mangalore Harbour and closing the Gurpur gap was in abeyance. An exceptionally heavy burst of the monsoon at the end of July was much felt in the Netravati and Gurpur Rivers, and the long predicted junction of the embouchure of the rivers into the sea having been effected by natural causes, the Gurpur gap closed spontaneously.

APPENDICES.

COMPARATIVE STATEMENT

OF

GRANTS AND OUTLAY FOR 1875-76 AND 1876-77

ARRANGED BY FUNDS AND CLASSES.

APPENDIX A.

Head of Service.	1875-76.		1876-77.	
	Grant.	Outlay.	Grant.	Outlay.
IMPERIAL.	RS.	RS.	RS.	RS.
<i>Military.</i>				
Original Works	3,90,826	3,87,165	3,32,028	2,90,675
Repairs	2,63,034	2,60,593	2,41,770	2,32,256
Establishment	1,51,000	1,63,465	1,57,000	1,62,822
Tools and Plant	16,146	23,605	15,000	25,867
Profit and Loss	...	...	...	...
	3,21,006	8,34,828	7,45,798	7,11,020
Fluctuations in Suspense Balances.				
Stock	21,006	3,401	92,798	906
Miscellaneous Advances	...	1,317	...	14,664
London Invoices	...	...	...	...
	8,00,000	8,32,744	6,53,000	7,24,778
Value of Stores received without charge from Mint.				
Expenditure in England	12,000	5,929	9,000	13,710
Total, Military ...	7,88,000	8,26,815	6,44,000	7,11,068
<i>Other Services.</i>				
Original Works	64,751	17,602	38,299	29,753
Repairs	7,062	8,836	5,709	2,573
Establishment	17,569	22,954	22,198	20,203
Tools and Plant	4,805	843	1,960	3,389
Profit and Loss	...	...	...	...
	93,687	50,235	68,167	55,917
Fluctuations in Suspense Balances.				
Stock purchases and sales	...	5,105	...	4,073
Stock	1,841	45,987	...	64,020
Miscellaneous Advances	...	...	...	1
London Invoices	...	6,624	...	2,318
London Stores	...	13,451	...	11,717
	91,846	16,180	68,167	21,074
Expenditure in England ...	1,400	912	...	...
Total, Other Services ...	94,447	66,427	68,167	21,074
Total, Military and Other Services	8,78,446	8,42,783	7,12,167	6,89,994
Reduction of Grant to meet expenditure in England.	...	...	...	...
Net Grant for and Net Outlay in India for Military and Other Services	8,78,446	8,42,783	7,12,167	6,89,994

APPENDIX A—(Continued).

Head of Service.	1875-76.		1876-77.	
	Grant.	Outlay.	Grant.	Outlay.
	RS.	RS.	RS.	RS.
IRRIGATION.				
<i>Capital Extraordinary.</i>				
Works	4,97,692	4,24,259	2,65,649	2,02,012
Establishment	1,25,008	1,30,138	94,754	1,00,052
Tools and Plant	67,300	89,843	49,150	15,563
Fluctuations in Suspense Balances.	...	16,004	16,729	18,462
Total ...	6,90,000	6,10,247	4,26,282	3,36,089
Less Receipts on Capital Account ...	...	165	...	*50,202
Net	6,90,000	6,10,082	4,26,282	2,85,887
Less Refund from Provincial Grant.	...	...	50,000	...
Less Reduction of Grant to meet Expenditure in England.	...	...	6,000	778
Less Deficit	...	...	10,000	...
Total, CAPITAL Extraordinary ...	6,90,000	6,10,082	3,60,282	2,85,109
<i>Ordinary.</i>				
Works	5,78,826	3,20,402	82,458	40,754
Establishment	1,76,619	95,307	52,548	43,245
Tools and Plant	17,600	4,669	34,465	22,777
Profit and Loss	...	...	...	...
Fluctuations in Suspense Balances ...	...	8,585	13,272	5,073
State Outlay on Guaranteed Irrigation Works.	8,000	5,202	9,226	4,993
Total ...	7,81,045	4,34,165	1,65,425	1,11,704
Less Receipts on Capital Account.	...	480	...	20,374
Net	7,81,045	4,33,685	1,65,425	91,330
Less Reduction of Grant to meet Expenditure in England.	...	...	14,550	11,076
Less Expenditure in England ...	8,281	1,761	...	...
Total, CAPITAL Ordinary ...	7,72,764	4,31,924	1,50,875	80,254
Total, CAPITAL, Extraordinary and Ordinary.	14,62,764	10,42,006	5,11,157	3,65,363
<i>Revenue.</i>				
Extensions and Improvements ...	...	20,878	40,538	38,169
Maintenance and Repairs	13,61,300	4,69,957	4,69,359	4,46,093
Establishment	4,24,600	2,30,380	2,23,846	2,22,279

* Including Rs. 50,000 refund to Provincial Grant.

APPENDIX A—(Continued).

Head of Service.	1875-76.		1876-77.	
	Grant.	Outlay.	Grant.	Outlay.
	RS.	RS.	RS.	RS.
Tools and Plant	73,400	72,513	77,200	78,398
Profit and Loss	...	...	...	...
Total ...	18,59,300	7,87,227	8,04,943	7,79,939
Less reduction of Grant for expenditure in England.	...	...	...	...
Less expenditure in England ...	18,219	27,210	...	...
Total, Revenue ...	18,41,081	7,60,017	8,04,943	7,79,939
<i>Ordinary. Agricultural Works for which no Capital or Revenue Account is kept.</i>				
Original Works	71,824	8,31,075	4,04,266	3,42,034
Repairs	1,00,500	10,58,785	10,30,046	10,10,285
Establishment	55,231	3,96,079	4,34,755	3,93,463
Tools and Plant	...	18,325	24,325	30,243
Profit and Loss	...	...	...	...
Fluctuations in suspense balance ...	...	766	...	339
Total ...	2,27,555	18,05,030	18,93,382	17,76,398
Less reduction of Grant for expenditure in England.	...	...	8,358	14,707
Less expenditure in England ...	...	...	...	...
Total, Ordinary Agricultural Works ...	2,27,555	18,05,030	18,85,024	17,61,686
Total, Irrigation Ordinary ...	28,41,400	29,96,971	28,40,842	26,21,879
Total, Extraordinary and Ordinary ...	35,81,400	86,07,053	32,01,124	29,06,988
Total, IMPERIAL ...	44,09,846	44,49,836	39,13,291	35,96,982
PROVINCIAL.				
<i>Original Works.</i>				
Civil Buildings	4,12,678	3,96,087	4,25,696	5,35,709
Communications	7,11,744	6,91,185	2,57,494	2,82,443
Miscellaneous Public Improvements.	8,327	12,052	21,316	33,890
Refund to Extraordinary Grant ...	...	...	50,000	50,000
Total, Original Works ...	11,32,749	10,99,324	7,54,706	9,02,042
<i>Repairs.</i>				
Civil Buildings	1,15,396	1,26,867	1,29,052	1,21,737
Communications	2,89,450	2,92,621	2,48,816	* 2,44,304
Miscellaneous Public Improvements.	9,032	8,890	14,190	13,632
Total, Repairs ...	4,13,878	4,27,878	3,87,058	3,79,673

* Includes Rs. 1,94,712 Contribution to Local Funds.

APPENDIX A—(Continued).

Head of Service.	1876-76.		1876-77.	
	Grant.	Outlay.	Grant.	Outlay.
Establishment	Rs. 4,56,000	Rs. 5,28,603	Rs. 4,85,579	* 5,39,508
Tools and Plant	80,517	77,492	83,887	1,27,605
Profit and Loss	...	583	...	1,841
Total ...	20,62,744	21,33,886	17,11,230	19,50,750
FLUCTUATIONS IN SUSPENSE BALANCES.				
Stock Purchases and Sales	...	1,642	...	2,947
Stock	...	20,513	50,810	1,992
Miscellaneous Advances	...	56,795	...	27,496
London Invoices	...	10,263	...	60,062
London Stores	...	34,083	...	2,173
Total PROVINCIAL ...	20,62,744	21,89,016	16,60,420	19,84,548
LOCAL.				
Original Works.				
Civil Buildings	4,08,482	2,55,513	3,82,574	2,20,545
Agricultural	...	1,002	...	6,520
Communications	11,54,686	7,16,556	11,50,594	11,28,748
Miscellaneous Public Improvements.	67,583	39,480	1,48,916	45,368
Total, Original Works ...	16,25,701	10,12,551	16,82,084	14,01,184
Repairs.				
Civil Buildings	77,801	40,638	65,077	44,444
Agricultural	...	...	...	...
Communications	19,10,225	18,36,872	17,81,704	16,93,471
Miscellaneous Public Improvements.	1,03,041	81,614	1,18,622	84,141
Total, Repairs ...	20,91,067	19,58,922	19,66,303	18,22,059
Establishment	4,80,281	5,71,503	7,42,271	7,43,559
Tools and Plant	39,148	37,106	40,241	36,198
Profit and Loss	...	...	...	114
Total, LOCAL ...	42,36,197	35,80,082	44,30,899	40,03,114
Grand Total, IMPERIAL, PROVINCIAL AND LOCAL.	1,07,08,787	1,02,18,934	100,04,010	95,84,639

* Includes Rs. 48,678 Contribution to Local Funds.

APPENDIX B.

Statement showing the Expenditure on Public Works in 1876-77 from Imperial Funds as compared with the allotment for that year.

Districts.	Allotment.			Expenditure 1876-77.		
	Imperial.	Irrigation.	Total.	Imperial.	Irrigation.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bangalore ...	1,31,661	...	1,31,661	1,23,661	...	1,23,661
Bellary ...	89,834	55,100	1,44,934	83,423	53,119	1,36,542
Cuddapah ...	940	69,000	69,940	260	67,979	68,239
Chingoleput ...	83,294	1,70,065	2,53,359	84,056	1,33,704	2,17,760
Coimbatore ...	995	90,902	91,897	979	88,552	89,531
Ganjam ...	7,246	42,000	49,246	4,573	51,484	56,057
Godavary ...	745	4,60,964	4,61,709	1,543	3,98,787	4,00,330
Kurnool ...	830	91,278	92,106	708	84,532	85,240
Kistna ...	232	1,80,355	1,80,587	536	1,71,896	1,72,432
Madura ...	3,800	54,500	58,300	350	47,394	47,744
Malabar ...	38,634	2,072	40,756	33,713	2,063	35,776
Nellore ...	10,509	2,02,911	2,13,420	11,770	1,67,462	1,79,232
Nilgiri ...	89,212	...	89,212	84,341	...	84,341
North Arcot ...	6,925	1,65,728	1,72,653	6,642	1,67,306	1,74,147
Presidency, including Consulting Architect.	91,473	2,340	93,813	68,402	2,327	70,729
Salem ...	5,579	78,218	83,797	4,027	75,628	79,655
South Arcot ...	1,270	1,30,500	1,31,770	832	1,23,036	1,23,868
South Canara ...	1,965	...	1,965	1,897	...	1,897
Tanjore ...	2,050	1,62,500	1,64,550	1,546	1,56,910	1,58,456
Tinnevely ...	4,856	1,63,420	1,68,276	4,178	1,46,903	1,51,081
Trichinopoly ...	23,813	1,11,899	1,35,712	23,823	1,11,709	1,35,532
Vizagapatam ...	8,571	17,310	25,881	8,559	17,240	25,799
Unallotted balance of grant.	13,322	35,246	48,568	...	...	...
Total grants and expenditure by Public Works Department.	6,17,806	22,86,306	29,04,112	5,55,019	20,58,036	26,23,049
Total outlay by Civil Officers.	...	...	...	128	6,317	6,455
Total grants and expenditures.	6,17,806	22,86,306	29,04,112	5,55,157	20,74,347	26,29,504
Total Private contribution.	...	...	...	...	...	...
Grand Total ...	6,17,806	22,86,306	29,04,112	55,157	20,74,347	26,29,504

APPENDIX B—(Continued).

Statement showing the Expenditure on Original Works in each District from Imperial Funds under the Budget Heads.

Districts.	Military.	Other Services.	Irrigation.		Total.
			Ordinary.	Extra-ordinary.	
	RS.	RS.	RS.	RS.	RS.
Bangalore	65,240	...	...	...	65,200
Bellary	55,802	494	7,552	...	63,848
Cuddapah	...	220	16,420	...	16,640
Chingleput	54,481	5,012	33,370	...	92,863
Coimbatore	171	37	14,615	...	14,749
Ganjam	969	1,654	2,777	...	5,400
Godavery	...	2,488	46,753	1,52,900	2,01,141
Kurnool	...	98	35,447	...	35,545
Kistna	...	122	17,280	21,870	39,272
Madura	...	850	6,783	...	7,133
Malabar	16,464	359	...	...	16,823
Nellore	...	11,142	92,411	...	1,03,553
Nilgiri	77,097	...	...	...	77,097
North Arcot	2,575	1,717	31,775	...	36,067
Presidency, including Consulting Architect. Con.	4,262	545	...	...	3,717
Salem	...	296	23,854	...	24,150
South Arcot	...	832	31,005	3,288	38,549
South Canara	937	838	...	...	1,275
Tanjore	...	1,546	11,241	...	12,787
Tinnevely	...	3,689	80,556	30,530	64,675
Trichinopoly	11,142	8	13,118	...	24,268
Vizagapatam	1,435	...	2,000	...	3,435
Total Expenditure by Public Works Department.	2,90,575	29,678	4,15,957	2,02,012	9,38,222
Expenditure by Civil Officers.	...	75	...	...	75
Total ...	2,90,575	29,753	4,15,957	2,02,012	9,38,297

APPENDIX B—(Continued).

Statement showing the Expenditure on Repairs in each District from Imperial Funds under the Budget Heads.

Districts.	Military.	Other Services.	Irrigation.	Total.
	RS.	RS.	RS.	RS.
Bangalore	63,421	...	...	63,421
Bellary	26,973	154	45,567	72,694
Cuddapah	...	40	51,559	51,599
Chingleput	24,518	15	1,00,334	1,24,897
Coimbatore	654	191	73,937	74,782
Ganjam	1,653	297	48,707	50,657
Godavery	...	945	2,00,134	1,99,189
Kurnool	...	610	49,085	49,610
Kistna	...	414	1,32,746	1,32,957
Madura	...	...	40,611	40,611
Malabar	16,706	184	2,063	18,953
Nellore	...	628	75,051	75,679
Nilgiri	7,144	100	...	7,244
North Arcot	2,405	145	1,35,530	1,38,080
Presidency, including Consulting Architect	64,533	152	2,327	67,012
Salem	3,610	121	51,774	55,505
South Arcot	...	...	95,318	95,318
South Canara	625	3	...	628
Tanjore	...	...	1,45,669	1,45,669
Tinnevely	539	50	85,818	86,407
Trichinopoly	12,678	...	98,591	1,11,269
Vizagapatam	6,767	357	15,240	22,364
Total Expenditure by Public Works Department.	2,32,256	2,510	14,50,061	16,84,827
Expenditure by Civil Officers ...	...	63	6,317	6,380
Grand Total ...	2,32,256	2,573	14,56,378	16,91,207

APPENDIX B—(Continued).

Statement showing the Expenditure on Public Works in 1876-77 from Provincial Funds as compared with the Allotment for that Year.

	Allotments for 1876-77, including private contributions.	Expenditure, 1876-77.
	RS.	RS.
Bangalore	5,124	5,385
Bellary	36,567	39,249
Cuddapah	16,379	14,308
Chingleput	12,686	20,644
Coimbatore	17,141	8,643
Ganjam	35,268	32,508
Godavery	28,852	27,066
Kurnool	36,579	32,425
Kistna	13,797	11,082
Madra	69,866	67,215
Malabar	32,612	33,839
Nellore	1,94,121	2,23,675
Nilgiri	42,621	1,22,930
North Arcot	12,482	10,865
Presidency	2,33,875	2,44,953
Salem	23,879	29,286
South Arcot	28,857	29,060
South Canara	15,442	13,323
Tanjore	8,303	7,453
Tinnevely	11,523	12,523
Trichinopoly	10,346	8,719
Vizagapatam	28,930	13,294
Unallotted Balance of Grant	8,498	...
Grant-in-aid to Local	1,94,712	1,94,712
Total	11,77,052	12,03,057
Expenditure by Civil Officers	...	28,653
Refund from Provincial to Extraordinary	...	50,000
Total Private Contributions	...	...
Grand Total	...	12,31,715

APPENDIX B—(Continued).

(3.)—Statement showing the Expenditure on Original Works in each District from Provincial Funds under the Budget Heads.

Districts.	Civil Buildings.	Communi-cations.	Miscellane-ous Public Improvements.	Total.
	RS.	RS.	RS.	RS.
Bangalore	131	4,800	...	4,931
Bellary	24,933	6,448	...	31,381
Cuddapah	11,741	...	...	11,741
Chingleput	4,451	2,064	7,456	13,971
Coimbatore	3,587	2,681	...	6,268
Ganjam	7,231	17,234	274	24,739
Godavery	5,463	...	4,864	10,327
Kurnool	28,123	34	...	28,089
Kistna	6,493	...	...	6,493
Madura	18,204	35,918	334	54,456
Malabar	24,370	117	...	24,487
Nellore	41,774	1,80,163	...	2,21,937
Nilgiri	1,04,014	9,560	1,003	1,14,577
North Arcot	3,882	2,904	...	6,786
Presidency	1,48,662	19,082	10,139	1,77,833
Salem	15,702	...	9,820	25,522
South Arcot	25,304	1,450	...	26,754
South Canara	17,310	...	...	17,310
Tanjore	2,639	...	...	2,639
Tinnevely	10,982	...	...	10,982
Trichinopoly	7,503	...	...	7,503
Vizagapatam	7,631	106	...	7,737
Total Expenditure by Public Works Department.	5,20,130	2,82,443	33,890	8,36,463
Expenditure by Civil Officers	15,579	...	...	15,579
Refund from Provincial to Extraordinary.	...	...	...	50,000
Grand Total	5,35,709	2,82,443	33,890	9,02,042

APPENDIX B—(Continued).

Statement showing the Expenditure on Repairs in each District from Provincial Funds under the Budget Heads.

Districts.	Civil Buildings.	Communications.	Miscellaneous Public Improvements.	Total.
Bangalore	Rs. 454	Rs. ...	Rs. ...	Rs. 454
Bellary	3,105	4,763	...	7,868
Cuddapah	2,467	...	...	2,467
Chingleput	6,673	...	...	6,673
Coimbatore	2,375	...	...	2,375
Ganjam	7,769	...	...	7,769
Godavery	3,911	10,987	1,841	16,739
Kurnool	4,336	...	...	4,336
Kistna	4,280	...	309	4,589
Madura	5,692	1,745	5,322	12,759
Malabar	7,405	...	1,947	9,352
Nellore	1,738	...	...	1,738
Nilgiri	3,019	5,334	...	8,353
North Arcot	4,076	...	3	4,079
Presidency	39,435	28,511	4,174	67,120
Salem	3,764	...	...	3,764
South Arcot	2,306	...	...	2,306
South Canara	4,004	...	17	3,987
Tanjore	4,795	...	19	4,814
Tinnevely	1,541	...	...	1,541
Trichinopoly	1,216	...	...	1,216
Vizagapatam	4,115	1,442	...	5,557
Grant-in-aid to Local	...	1,94,712	...	1,94,712
Total Expenditure by Public Works Department.	1,10,468	2,42,494	13,632	3,66,594
Expenditure by Civil Officers	11,269	1,810	...	13,079
Grand Total	1,21,737	2,44,304	13,632	3,79,673

APPENDIX C.

Statement of Local and Special Funds Expenditure incurred by the Public Works Department during the Year 1876-77.

Districts.	Original Works.				
	Civil Buildings.	Agricultural.	Communications.	Miscellaneous Public Improvements.	Total.
	2	3	4	5	6
Bellary	Rs. 15,976	Rs. ...	Rs. 26,453	Rs. 1,088	Rs. 43,517
Civil Officers	452	...	736	80	1,268
Cuddapah	3,514	...	18,726	...	22,240
Civil Officers	2,714	...	1,494	580	4,788
Chingleput	930	...	2,21,460	...	2,22,390
Civil Officers	...	...	...	...	42,740
Coimbatore	3,542	6,529	27,669	...	669
Civil Officers	669	...	48,845	6,881	59,940
Ganjam	4,714	...	...	...	632
Civil Officers	632	...	1,22,739	5,315	1,30,185
Godavery	2,081	...	...	...	...
Civil Officers	2,207	...	23,405	2,078	27,690
Kurnool	...	...	95,605	1,467	1,01,065
Civil Officers	3,998	...	...	...	1,01,290
Kistna	11,481	...	89,809	...	3,201
Civil Officers	...	...	3,060	151	65,110
Madura	4,579	...	60,581	...	395
Civil Officers	...	...	70	325	60,570
Malabar	23,399	...	37,171	...	84
Civil Officers	84	...	16,901	...	16,901
Nellore	...	...	82,535	...	1,00,813
Nilgiri	18,233	...	3,035	12,063	17,797
North Arcot	2,699	...	...	...	68,599
Civil Officers	68,599	...	...	...	2,762
Presidency	2,138	...	...	...	21,851
Salem	10,202	...	9,343	2,306	68,607
Civil Officers	15,092	...	53,515	...	581
South Arcot	...	...	130	451	29,484
Civil Officers	3,240	...	25,944	300	2,445
South Canara	1,555	...	90	800	46,349
Civil Officers	2,702	...	43,647	...	10,478
Tanjore	165	...	683	9,630	46,845
Civil Officers	5,209	...	41,636	...	10,789
Tinnevely	283	...	10,466	40	14,004
Trichinopoly	372	...	13,632	...	950
Civil Officers	...	...	950	...	49,390
Vizagapatam	3,981	...	43,602	1,807	4,810
Civil Officers	58	...	4,752	...	...
Public Works Department	2,01,032	6,529	10,93,949	18,936	13,20,446
Civil Officers	19,513	...	34,799	26,426	80,738
Total	2,20,545	6,529	11,28,748	45,362	14,01,184
Less grants-in-aid from Provincial to Local.	...	...	...	...	...
Profit and Loss	2,20,545	6,529	11,28,748	45,362	14,01,184
	...	...	...	...	114

APPENDIX C—(Continued).

Statement of Local and Special Funds Expenditure incurred by the Public Works Department during the Year 1876-77.

Districts.	Repairs.				
	Civil Buildings.	Agricultural.	Communication.	Miscellaneous Public Improvements.	Total.
	7	8	9	10	11
Bellary ...	Rs. 1,341	Rs. ...	Rs. 86,669	Rs. 4,964	Rs. 92,974
Civil Officers ...	68	...	451	2,147	2,666
Cuddapah ...	4,650	...	71,879	...	76,029
Civil Officers ...	110	...	...	4,194	4,304
Chingleput ...	551	...	1,21,318	...	1,21,869
Civil Officers ...	70	...	11,389	2,796	14,255
Coimbatore ...	2,672	...	85,128	...	87,800
Civil Officers ...	1,926	...	27,158	1,374	30,458
Ganjam ...	167	...	97,294	883	98,344
Civil Officers ...	...	...	688	...	688
Godavery ...	1,096	...	56,187	13,301	70,584
Civil Officers ...	118	...	...	...	118
Kurnool ...	1,381	...	47,809	...	48,690
Civil Officers ...	...	...	3,330	2,387	5,717
Kistna ...	2,337	...	74,965	11,272	88,574
Civil Officers ...	...	...	...	...	...
Madura ...	2,402	...	1,07,760	4,600	1,14,762
Civil Officers ...	2,424	...	1,384	5,103	8,971
Malabar ...	2,791	...	1,48,418	261	1,51,470
Civil Officers ...	3,099	...	6,940	712	10,751
Nellore ...	1,308	...	88,700	652	90,680
Civil Officers ...	175	...	...	...	175
Nilgiri ...	99	...	34,022	...	34,121
North Arcot ...	79	...	1,28,192	...	1,28,271
Civil Officers ...	153	...	3,100	8,881	12,134
Presidency ...	265	...	...	483	748
Salem ...	770	...	45,802	...	46,072
Civil Officers ...	3,298	...	72,231	8,231	83,756
South Arcot ...	395	...	1,22,502	247	1,23,144
Civil Officers ...	55	...	...	...	55
South Canara ...	981	...	51,711	329	53,021
Civil Officers ...	540	...	10,058	738	11,336
Tanjore ...	390	...	1,17,253	1,249	1,18,892
Civil Officers ...	7,698	...	1,695	...	9,393
Tinnevely ...	40	...	76,497	1,778	78,315
Civil Officers ...	489	...	20,367	3,055	23,911
Trichinopoly ...	207	...	82,847	4,447	87,501
Civil Officers ...	128	...	32	...	32
Vizagapatam ...	176	...	83,285	...	83,413
Civil Officers ...	...	...	2,622	...	2,798
Public Works Department ...	24,050	...	17,26,738	44,466	17,95,254
Civil Officers ...	20,394	...	1,61,445	39,678	2,21,517
Total ...	44,444	...	18,88,183	84,144	20,16,771
Less grants-in-aid from Provincial to Local ...	...	...	1,94,712	...	1,94,712
Profit and Loss ...	44,444	...	16,93,471	84,144	18,22,059

APPENDIX C—(Continued).

Statement of Local and Special Funds Expenditure incurred by the Public Works Department during the Year 1876-77.

Districts.	Establishment.	Tools and Plant.	Grand Total.
	12	13	14
	Rs.	Rs.	Rs.
Bangalore ...	34,123	7,191	1,77,805
Bellary ...	...	...	3,938
Civil Officers ...	24,567	2,357	1,25,193
Cuddapah ...	...	...	9,092
Civil Officers ...	86,065	629	4,30,953
Chingleput ...	1,433	...	15,688
Civil Officers ...	32,635	1,215	1,64,890
Coimbatore ...	...	...	31,127
Civil Officers ...	36,126	2,510	1,96,920
Ganjam ...	...	...	1,320
Civil Officers ...	50,493	6,629	2,57,841
Godavery ...	...	...	118
Civil Officers ...	19,095	545	96,020
Kurnool ...	...	...	5,717
Civil Officers ...	47,410	1,464	2,38,453
Kistna ...	...	...	...
Civil Officers ...	54,013	1,343	2,71,408
Madura ...	214	...	12,386
Civil Officers ...	54,648	1,817	2,73,045
Malabar ...	1,605	...	12,751
Civil Officers ...	37,807	1,387	1,90,424
Nellore ...	1,057	...	1,316
Civil Officers ...	12,756	390	64,168
Nilgiri ...	57,272	855	2,87,216
North Arcot ...	...	...	29,931
Civil Officers ...	17,337	...	86,684
Presidency ...	12,209	...	61,043
Salem ...	10,694	1,636	1,17,936
Civil Officers ...	47,938	207	2,39,896
South Arcot ...	...	...	636
Civil Officers ...	20,626	2,009	1,05,140
South Canara ...	697	...	14,478
Civil Officers ...	41,310	...	2,06,551
Tanjore ...	...	...	19,871
Civil Officers ...	31,290	1,668	1,58,118
Tinnevely ...	240	240	35,180
Civil Officers ...	25,376	450	1,27,331
Trichinopoly ...	...	...	982
Civil Officers ...	33,201	1,712	1,67,716
Vizagapatam ...	...	...	7,608
Civil Officers ...	...	...	...
Public Works Department ...	7,76,297	34,318	39,26,315
Civil Officers ...	15,940	1,880	3,20,075
Total ...	7,92,237	36,198	42,46,390
Less grants-in-aid from Provincial to Local ...	48,678	...	2,43,390
Profit and Loss ...	7,43,559	36,198	40,03,000
...	...	...	114
...	...	...	40,03,114

APPENDIX D.

Statement of Works referred to in the Administration Report, Part II.

District.	Work.	Main Head.	Estimate.	Expenditure to end of March 1876.	Appropriation for 1876-77.	Expenditure during 1876-77.
			RS.	RS.	RS.	RS.
Ganjam ...	{	IMPERIAL,				
		Rifle Range, Berhampore	2,987	1,659	1,318	613
		Latrine, Berhampore Military Hospital.	375	...	375	356
		Barracks, European Infantry	58,000	91,153	4,700	1,174
Bellary ...	{	Band Barracks, do.	37,600	...	reduced to 1,230	...
		European Infantry Canteen	23,500	...	5,325	5,325
		Recreation Room	27,380	...	5,357	5,357
		Iron pipes, Artillery Plunge-bath	1,938	1,938	476	472
Presidency ...	{	Verandah roof, Royal Artillery Barracks.	18,600	...	7,498	12,100
		Native Infantry Magazine	8,600	...	increased to 12,400	...
		Well and trough, Commissariat Department.	1,075	...	8,600	8,196
		Smiths' sheds at the Gun Carriage Manufactory.	16,700	...	reduced to 1,075	1,068
Chingleput ...	{	Gun Platform, St. Thomas' Mount	11,210	7,483	reduced to 14,917	14,917
		Poonamallee Hospital	1,02,000	...	3,727	3,287
					reduced to 3,280	...
					40,000	44,294
					increased to 44,000	

33

Bangalore ...	{	Recreation Room, Parade Barracks	39,400	35,459	5,940	5,848
		Canteen, Parade Barracks	34,450	27,805	7,145	7,145
		Main Guard Latrine	700	250	270	289
		Native Infantry Armourers' Shop, French Rocks.	1,370	...	1,190	1,374
Trichinopoly ...	{	Native Infantry School-house	1,200	154	1,046	1,046
		Gates, Royal Artillery Gun Shed	2,168	...	2,160	2,080
		Sewer, Parade Barracks	2,500	...	2,500	2,500
		Additions to Sappers' Magazine	1,400	...	998	991
Nilgiris ...	{	Do. to Royal Artillery Sergeants' Mess House.	3,320	...	3,320	3,305
		Garrison Gymnasium	44,600	...	2,342	2,343
		European Barracks	6,970	...	6,970	6,968
		Native Infantry Armourers' Shop	1,960	...	1,950	1,995
Malabar ...	{	Wellington Barracks	1,41,430	76,759	71,744	71,744
		Lightning Conductors, Wellington Barracks.	6,000	...	6,000	6,300
		Swimming-bath, E. L., Cannanore	1,225	...	715	889
		Drainage, European Barracks, Cannanore.	5,500	...	4,000	4,883
Nellore ...	{	Asphalting floors, European Hospital, Cannanore.	425	...	increased to 5,500	...
		Asphalting floors, West-hill and Mallapuram Barracks and Hospital	6,800	6,334	2,222	465
		Post Office, Gudur	1,200	...	1,200	1,063
		Post Office, Rangooniah	1,780	...	1,780	1,717
North Arcot ...	{	Post Office, Ramnad	2,920	2,508	...	350
Madura ...	{	Coal boring operations	13,500	5,755	1,438	2,017
Godavery ...	{	Earthen traverses and masonry drains round the Expense Magazine at Veyanurpady	6,840	...	...	155
Presidency ...	{	Police Constable's house, Vizeapathi and Kallanguli.	2,760	1,000	1,760	1,722
Tinnevely ...	{	Other Services	...	...	...	...

39

23

APPENDIX D—(Continued).

District.	Work.	Main Head.	Estimate.	Expenditure to end of March 1876.	Appropriation for 1876-77.	Expenditure during 1876-77.
	PROVINCIAL.		Rs.	Rs.	Rs.	Rs.
Ganjam ...	Additions, Registrar's Office, Berhampore.	Civil Buildings ...	1,570	805	760	1,324
	Improving Tahsildar's Kacheri, Berhampore.	Do. ...	1,654	731	923	1,540
	Store Shed, Chalingapatam	Do. ...	4,355	4,151	...	265
	Converting terraced roof of Berhampore Zillah Jail Hospital.	Do. ...	900	...	900	896
Vizagapatam ...	Police Station, Georady	Do. ...	800	...	600	389
	Assistant Agent's Bungalow, Koraput	Do. ...	30,470	27,161	2,300	2,316
Godavery ...	Sub-Jail do.	Do. ...	19,335	6,754	6,500	1,397
	Range Office, Chettipet ...	Do. ...	11,890	6,434	3,516	5,332
Kistna ...	Taluq Kacheri and Sub-Jail, Bezawadah.	Do. ...	24,644	19,867	4,777	4,762
	Additions, Police Superintendent's Office, Masulipatam.	Do. ...	1,465	...	1,465	1,454
Nellore ...	Double Range Office, Bezawadah	Do. ...	7,350	7,350	...	4
	Additions, Godur Taluq Kacheri	Do. ...	6,200	4,574	...	500
	Taluq Kacheri, Atmakur	Do. ...	28,940	26,911	2,006	2,202
	Do. Rapur	Do. ...	28,350	20,906	6,170	6,165
	Taluq Kacheri, Udisigiri	Do. ...	27,930	20,936	5,460	5,494
	Sub-Magistrate's Kacheri, Vencatagiri.	Do. ...	12,950	7,588	2,080	1,616
	Do. Sulurpet	Do. ...	12,830	10,660	2,028	902
	Taluq Kacheri, Kanigiri	Do. ...	23,650	20,919	3,800	3,996
	Sub-Collector's Kacheri, Ongole	Do. ...	12,900	12,569	...	196
	Police Hospital, Nellore	Do. ...	6,890	5,902	511	1,127

40

Kurnool ...	Additions Collector's Kacheri, Kurnool.	Do. ...	29,800	5,046	14,400	14,151
	Taluq Kacheri, Koilguntla	Do. ...	64,772	44,637	10,000	9,985
	Roofing Court-house, Kurnool	Do. ...	5,100	2,681	5,100	2,666
Bellary ...	Sub-Magistrate's Kacheri, Yeniganoor.	Do. ...	10,725	8,644	2,000	2,024
	Adapting Gunga Mahal at Pennakondah as a Munsiff's Court.	Do. ...	1,427	5	1,427	1,427
	Improving Jail, Bellary	Do. ...	1,10,287	88,489	15,000 increased to 17,000	17,000
Presidency ...	Belfry, R. O. Church, Bellary	Do. ...	1,078	...	770	769
	P. W. Stores and Workshops, Seven Wells.	Do. ...	1,28,350	99,974	28,350 increased to 57,090	65,992
North Arcot ...	Converting P. W. Workshops into Offices for the P. W. Secretariat.	Do. ...	1,07,000	...	9,600	11,083
	Iron Ship Tank, Revenue Board Office.	Do. ...	1,810	1,89,588	1,810	1,308
	Senate House	Do. ...	2,75,886	13,268	...	34,932
	Laboratory, Presidency College	Do. ...	29,364	...	...	14,896
South Arcot ...	Iron doors, Punganoor Lock-up	Do. ...	5,200	4,233	...	1,009
	Drainage, &c., Central Jail, Vellore	Do. ...	8,200	4,999	3,000	3,000
G	Munsiff's Court-house, Villapuram	Do. ...	10,190	6,884	3,415	3,814
	Do. Virdachallum	Do. ...	11,450	7,497	3,950 reduced to 3,080	3,063
South Arcot ...	Deputy Collector's Kacheri Trichalore.	Do. ...	4,990	2,847	2,250	2,123
	Taluq Kacheri and Sub-jail, Do.	Do. ...	3,839	4,065	...	48
	Police Huts, Cuddalore	Do. ...	2,880	2,627	...	383
	Station-house, Old Town, Cuddalore	Do. ...	2,720	...	980 increased to 2,720	2,353
G	Do. Vallum	Do. ...	845	...	845	845
	Do. Oclurpet	Do. ...	890	...	890	890
	Bungalow and Office for Assistant Superintendent of Police, Trichalore.	Do. ...	6,550	230	2,881 increased to 3,000	2,443

41

24

APPENDIX D—(Continued).

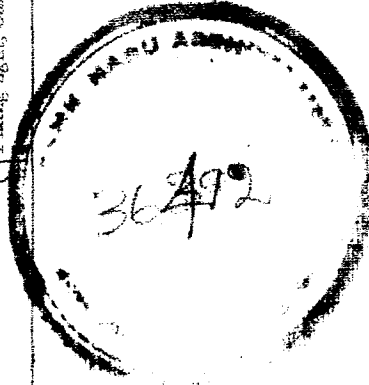
District.	Work.	Main Head.	Estimate.	Expenditure to end of March 1876.	Appropriation for 1876-77.	Expenditure during 1876-77.
Salem	PROVINCIAL—(Continued).					
	Police huts, Central Jail	Civil Buildings	16,110	4,799	Rs. 4,590 increased to 9,790	Rs. 9,719
	Deputy Tahsilkar's Kacheri and Lock-up, Yeround.	Do.	3,284	730	Rs. 2,000 increased to 2,733	2,733
	Deputy Collector's Kacheri, Vedar-nicu.	Do.	11,556	11,160	...	370
	Additions, Sub-Magistrate's Kacheri, Tirupocandy.	Do.	2,560	1,782	...	323
Tinnevely	Office for Sub-Registrar, Namillam.	Do.	2,100	...	Rs. 1,700	1,408
	Police Constable's huts, Kollatur	Do.	1,550	...	1,550	1,332
	Do. Yalnad	Do.	1,550	...	1,550	1,332
	Police Station-house, Kattalai Arcicut.	Do.	960	...	960	987
	Improvements Collector's Kacheri	Do.	1,420	...	1,270	1,270
Cumbastore	Additions, Cumbastore Jail	Do.	7,080	1,462	Rs. 1,400 reduced to 1,270	4,032
	Police Constable's huts, Metapollum	Do.	1,608	...	702 increased to 1,608	1,608
	Do. Shanbally	Do.	1,200	...	702 increased to 1,200	1,000
	Quarters for the Inspector of Police, Collegel.	Do.	2,820	2,464	Rs. 570 reduced to 35	850

Nilgiris	Railing, St. Thomas' Church, Ootacamund.	Do.	3,060	...	3,000	3,150
	Additions, Government Office, Ootacamund.	Do.	...	...	...	62,733
	Station house, Irrikur	Do.	910	...	910	895
	Do. Kanoth	Do.	920	...	920	1,036
	Sub-Registrar's Office, Ootacamund	Do.	3,970	...	3,970	2,630
Malabar	Deputy Collector's Kacheri, Manantody.	Do.	19,600	15,531	4,000	3,989
	Police Inspector's Bungalow, Manantody.	Do.	3,500	...	3,500 reduced to 2,000	2,680
	Police Station-house, Panamaram	Do.	2,720	1,606	1,100	1,100
	Do. Ketta	Do.	730	387	...	360
	Do. Putambay	Do.	620	451	...	184
South Canara	Enlarging Deputy Tahsildar's Kacheri, Hostivoo.	Do.	750	562	...	155
	Renewing roof, Sub-Judge's Court-house, Mangalore.	Do.	2,960	2,368	590	656
	Police School, Mangalore	Do.	950	...	980	1,088
	Compartments, Collector's Kacheri	Do.	13,570	6,893	1,664 reduced to 115	114
	Screen-walls, District Munsiff's Court.	Do.	9,790	...	1,500 reduced to 600	503
Madura	Tahsil Kacheri, Pulney	Do.	23,305	16,662	4,640	4,071
	Police Station-house, Cumbam	Do.	925	...	925	267
	Do. Bodhisickur	Do.	925	...	925	613
	Do. Calputty	Do.	945	469	481	481
	Do. Naricory	Do.	1,150	...	1,150	1,150
Tinnevely	Sub-Divisional Office, Peracolum	Do.	2,100	...	2,100	1,707
	Police Constables' huts, Sathur	Do.	3,150	2,850	300 increased to 333	333

APPENDIX D—(Continued).

District.	Work.	Main Head.	Estimate.	Expenditure to end of March 1876.	Appropriation for 1876-77.	Expenditure during 1876-77.
P ROVINCIAL—(Continued).						
Tinnevely—(Continued)	Police Station-house, Venbacotta Do. Manur.	Civil Buildings Do.	850 340	...	850 340	850 340
	Canal from Chilka Lake to the port of Ganjam.	Communications	1,41,370	1,10,764	17,400	17,234
Vizagapatam	Works on the Potinghy Ghaut...	Do.	1,30,400	47,079	20,000 10,068	11,249
Nellore	Extension of the East Coast Canal	Do.	{ 2,87,000 2,74,000	2,84,476 25,000	1,50,000	1,71,538
Presidency	Widening the Hospital Bridge...	Do.	5,61,000	...	...	...
	Canal Junction ...	Do.	45,440	24,975	28,200 reduced to 19,432	19,031
Coimbatore	Road from Mallampalliem to Kuddamudi.	Do.	...	...	...	28,305
	Road from Mettapolliem to Kullar	Do.	28,970	19,978	7,200 increased to 7,640 1,280	2,681 1,280
Madura	Ghaut Road, Goodalore ...	Do.	4,000 69,624	2,715 57,815	9,540 reduced to 4,540 16,000	4,519 16,257
	New Ghaut from Kodicanal to Neutral Saddle. Dredging Paumben Channel ...	Do.	16,000 22,810	...	3,000	384

Ganjam	Fixing light, Calingapatam Obelisk	Miscellaneous	1,670	...	...	280
SPECIAL.						
Godavery	Lighthouse, Vakalapudi ...	Do.	6,800	6,800	6,800	3,032
Cuddalore	Improvements, Zilla School-house	Civil Buildings	5,812	...	4,650	4,650
South Arcot	Deputy Tahsildar's Kachevi and Sub-jat, Mandoorpet.	Do.	7,270	...	968	1,928
Tanjore	Additions, Provincial College, Combarum.	Do.	58,000	58,000	increased to 1,968 2,730 reduced to 1,050 400	954
South Canara	Fixing the Mouth of the Mangalore Harbour and closing the Gurpur Gap.	Miscellaneous	2,115	2,115	1,516	300
Ganjam	Barampore Zilla Jail night latrine	Civil Buildings	1,780	1,780	1,064	172
	Fixing light, Calingapatam Obelisk	Miscellaneous	1,670	...	...	1,161



Handwritten signature and initials.