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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

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Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
15th August 1873.*

No. 248. Read the following Proceedings of the Board of Revenue, dated 29th July 1873, No. 1,429 :—

ABSTRACT.—*Public Works*—on Neilgherries.—Report on progress of — during 1872-73, submitted to Government.

No. 249. ORDER THEREON, 15th August 1873, No. 2,037.

CIVIL WORKS, No. 15.

COMMUNICATED to the District Engineer, Neilgherries.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Neilgherries.

Ed. F. R. Bantleman.

No. 1,429.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 29th July 1873.

Read the following letter from J. R. COCKERELL, Esq., Commissioner of the Nilgiris, to J. GROSE, Esq., Secretary to the Board of Revenue, dated Ootacamund, 18th June 1873, No. 55 :—

I HAVE the honour to submit my report on the Public Works Department in this district for the year 1872-73.

2. The expenditure as compared with the grants is shown below :—

		Grant.		Expenditure.	
		RS.	A. P.	RS.	A. P.
New Works	...	89,144	8 11	90,437	8 5
Repairs	...	52,031	0 0	51,544	8 2
Total...		1,41,175	8 11	1,41,982	0 7

3. The expenditure was distributed as follows :—

New Works.

	RS.	A.	P.
1. Military	24,935	8	0
2. Civil Buildings	13,735	6	6
3. Communications	15,678	7	9
4. Miscellaneous Public Improvements	9,652	1	4
6. Establishment	26,360	8	11

Repairs.

	RS.	A.	P.
7. Military	8,028	3	5
8. Civil Buildings	4,697	10	11
9. Communications	37,084	6	1
10. Miscellaneous Public Improvements	250	0	0
11. Tools and Plant	1,484	3	9

4. No expenditure occurred under the head "Agricultural."

5. I note the following details :—

NEW WORKS—*Military*.—Expenditure Rupees 24,935-8-0. Of this sum Rupees 15,910 have been laid out in substituting a teak flooring for asphalt in two out of the four blocks of married quarters in the Wellington Barracks; sixty rooms, each 16' x 14', have thus been improved. The substitution was adopted in consequence of asphalt being found too cold a flooring for European women and children.

Rupees 859-15-10 have been spent in restoring the Barrack and Hospital Plateaus, both much corroded by rain and wear and tear, to a uniform level. The work has improved the sanitary condition of the Barracks, as previously rain-water stagnated on the Plateaus. It has been applied to the whole of the Plateau but the Barrack Square.

Three Duff's cooking ranges have been purchased for the Barracks. The estimated cost was Rupees 1,030, but the stoves, which were made in the Department of Public Works Workshops at Madras and only arrived on the 4th of March, have cost more. They will be erected and the work completed upon an amended estimate.

The underground drains on the Barrack Plateau are of masonry and communicate with the surface by means of wells. These drains had become foul and in the hot weather emitted noxious odours. They have been replastered, and the wells, twelve in number, covered with stink-traps of cast-iron with bell-caps of an improved pattern. The cost of the work has been Rupees 1,853 8-0.

The Wellington Bazaar, which is on the slope of a steep hill, is supplied with water from a natural stream. The supply bifurcates into two main branches. One branch is a natural channel. This is the drinking supply. The other branch consists of masonry ducts which ramify throughout the bazaar and carry off the bazaar filth. At one point there was percolation in the main foul-water duct. This has now been remedied by plastering with hydraulic cement, and all risk of the foul water contaminating the drinking supply has been further secured by the construction of a cistern at the parting of the channels with shutters. The work has cost Rupees 1,110-13-4.

The other military works carried out during the year have been minor works.

Civil Buildings.—The Debtors' Wards attached to the Native Jail at Ootacamund were very little used. They have been converted into commodious quarters for the Jailer at a cost of Rupees 4,200. The quarters comprise bed-rooms with bath-room, sitting, dining-room and verandah, and cook-rooms.

Improvements in the Government offices at Stonehouse and in Lower Norwood, the residence of the Government Clerks, were effected at a cost of Rupees 3,017-10-3. They consist of paving, erecting two chimneys, a lunch-room for the Clerks, and three cooking-rooms for peons at Stonehouse, and reconstructing a stable, whitewashing and painting, and supplying some pieces of furniture at Lower Norwood.

Blocks of Police Lines at Ootacamund.—The Police employed in guarding the convict gangs at work on the Reclamation Scheme have been hitherto located in a range of hired buildings at the foot of Bombay House Hill. These buildings are in a dilapidated condition and leak, and the situation is damp. Accordingly fresh lines on the Jail Hill were some time since authorized by Government. These lines are almost finished. They consist of two blocks in brick and mud with tiled roof on teak rafters, and form sixteen sets of quarters, each set comprising a main room 12' x 10' and a side room 12' x 3'. The delay in the completion of these buildings is owing to the lateness of the north-east monsoon, which prevented the manufacture of the bricks required till January 1873. Rupees 5,274-3-5 had been spent on the work at the close of the official year. The buildings will cost in all Rupees 7,319.

Communications.—*Yellanully Chuttrum to Kartairy.*—This road has been under construction three years. It opens out the Colacumbay Valley, in which and in the vicinity there are about 2,000 acres of land under coffee, to Coonoor. The operations this year, costing Rupees 999-13-11, have been confined to the Kartairy Ghaut, which is now completed. The ghaut is more than two miles long. This year's work has consisted of revetting and blasting.

The New Kotagherry Ghaut.—The operations this year have occurred in the lower seven miles. One-half of this section has been completed, and the rest will be finished in the coming year. At the top of the ghaut 5½ miles were completed two years ago. The expenditure this year has been Rupees 7,265-9-6. The ghaut will be eight feet wide, but the bridges and drains will be fifteen feet between parapets, and it will be easy hereafter to make the ghaut of a similar width at a comparatively moderate cost. The ghaut when finished will be eighteen miles in length. The gradient is 1 in 17.

The Hoolicul Road.—There is a trace from the new Coonoor Ghaut to Hoolicul, Pilloor, and on to Kartairy. The object of a road in this direction is to benefit certain coffee and tea estates. The trace is about ten miles long. The Local Fund Board proposed to open out the first two miles of the trace and make this section into a good road. The work has been carried out this year at a cost of Rupees 4,093-3-11. The work has been very well done, and the road is as wide as the new Coonoor Ghaut.

The Coldstream Bridge.—This bridge is to span a stream at the head of the Seegoor Ghaut. It is the successor to a bridge which was washed away by floods. The first estimate for the construction of the work amounted to Rupees 1,500. The sum was found to be too small owing to the

necessity of making the foundation very solid to resist floods, and a fresh estimate of Rupees 5,000 was submitted for the work. The bridge will be completed in July 1873. It will be twenty feet span with abutments twelve feet in height.

A toll-house has been constructed at Craigmore. The old toll-house was a mere thatched shed.

Rupees 500 were sanctioned for rethatching the Avalanche Bungalow. The building is of teak, and was erected more than twenty years ago. It has a wooden roof with thatch above. A thatch lasts about three years. When the District Engineer came to put on a new thatch he found that the grass required alone would cost nearly Rupees 700 and there would be the cost of putting it on. A thatch on a bungalow is not safe against fire, and there were notes in the Bungalow Book that the thatch had been in danger more than once of catching fire. Accordingly Captain Morant thought it better to substitute a roof of corrugated iron. He will submit a supplementary estimate for the work, which is more expensive than thatching. Captain Morant has also restored the stables, which were shaky, strengthening the walls with buttresses and building masonry pillars to support the roof. The bungalow is now in admirable repair, and should not require anything to be done to it for years to come.

The Kaity Bridge has been reconstructed in the year under report.

Miscellaneous Public Improvements.—The most important work under this head is the North Ootacamund Water-supply. This project is now completed. It consists of a reservoir capable of holding 47,000,000 gallons of water. The reservoir is formed by a bund closing the mouth of a valley. The bund is 400 feet long, 60 high, and 25 feet wide at the top. It has a clay puddle wall four feet thick throughout the entire length. The inner slope is revetted with stone. The bund is provided with a waste weir eight feet wide. The surplus escape water is carried down a masonry drop, which has 211 steps and is 131 feet high, into a ravine. The rest of the water passes along an open channel until it reaches Pope's Saddle, 1,593 yards from the dam. The water flows here through a tunnel piercing the Saddle and proceeds to St. Stephen's Church along an open cutting, except at one spot where there is a masonry aqueduct 425 feet long, and at the church falls forty-five feet by a drop with seventeen steps, and enters the churchyard, where part is carried to Sylk's Hotel and the houses in that vicinage and the rest passes under ground by 516 feet of iron piping to the bazaar, where it enters cisterns and is distributed. The distance from the reservoir to the bazaar is 4½ miles. The gradients of the channel conveying the water to the bazaar are from 1 to 6 in 100 feet. Rupees 3,633 have been spent on the work this year.

Reclamation Scheme.—The prisoners were employed on the masonry drop at the Carrying Company's premises up to the end of August. On the 1st September they were removed to the Reclamation Scheme proper, and up to the end of the official year performed the subjoined work:—

3,362 cubic yards of earth excavated and thrown into the swamp.

640 do. excavation for retaining wall across the reclaimed land.

640 yards rough-stone retaining wall built.

2,140 running feet of holes bored in granite for blasting.

This work, calculated at the usual district rates, is worth Rupees 6,923. It was performed by a total number of 22,406 prisoners. Rupees 1,951-12-0 were spent on the work in superintendence, blasting powder, and in carting water for the prisoners to the jail. About twenty-eight acres of land have now been reclaimed.

The Kandal Sluice has been completed at a total cost of Rupees 1,830, of which the last 830 has been laid out this year. The work consists of a masonry drop revetted with stone and plastered. There are ten steps, and the width is eighteen feet. The work has a length of 224 feet. It has been built to relieve the lake in heavy floods. By its means the level of the lake can be lowered at pleasure.

REPAIRS—Military.—The Barracks at Wellington have this year been whitewashed at a cost of 4,288 Rupees. The other repairs require no remark.

Repairs to Civil Buildings, Rupees 4,697-10-11.—The principal items of expenditure on this head are Rupees 1,080 for repairing the roof of St. Stephen's Church, Rupees 725-15-11 for similar repairs to the Coonoor Church, and small sums for painting and whitewashing the Kotagherry Church, Commissioner's and Engineer's offices, and the premises at Lower Norwood.

Communications.—Rupees 37,084-6-1 have been expended on roads, as particularized below :—

No.	Works.	Expenditure during 1872-73.		
		RS.	A.	P.
1.	Repairing Kotagherry Ghaut Road	2,060	0	0
2.	Road from Coonoor to Lamb's Rock and Dolphin's Nose Road.	1,191	0	0
3.	New Road from Ooty to Coonoor	2,963	14	10
4.	Road from Ooty to Kuckanulla via Seegoor	2,860	1	7
5.	Do. to Goodaloor	3,299	14	7
6.	Repairing New Coonoor Ghaut	9,245	6	0
7.	Do. Ootacamund Station Roads	2,062	1	2
8.	Wellington Station Roads	1,320	0	0
9.	Road from Coonoor to Kotagherry	1,311	4	11
10.	Do. do. to Craigmere Toll-gate	440	0	0
11.	Do. Kartary to Ooty	140	0	9
12.	Do. do. to Colacumbay	280	0	0
13.	Do. Kotagherry to Kodanand	474	10	0
14.	Do. Ootacamund to Avalanche	820	0	0
15.	Old Coonoor Ghaut Road	992	2	0
16.	Road from Coonoor Ghaut to Kartairy	440	0	3
17.	Coonoor Station Roads	880	0	0
18.	Road from Ooty to Kotagherry	667	1	6
19.	Do. to Devasholay via Lawrence Asylum Works.	550	0	5
20.	Kotagherry Station Roads	310	0	0
21.	Road from Kaity to Coonoor Old Ghaut	170	0	0
22.	Bleak House to New Kotagherry Ghaut Road	359	15	8
23.	Old Pykara Road Repair	147	8	6
24.	Maloor to Munjacombay	100	0	0
25.	Repairing Seegoor Bridge	1,364	1	2
26.	Do. Kotagherry Chuttrum	899	4	11
27.	Kodanand Road Bridge	199	13	10
28.	Avalanche Bridge	300	0	0
29.	Pykara Falls Road	400	0	0
30.	Tiger Hill Road	500	0	0
31.	Ooty to Cooroomund Road	300	0	0

Total... 37,084 6 1

A total length of 238 miles of road have been kept in repair during the year, out of which ten miles have been attended to by private persons. Of these 238 miles, seventy-eight are macadamized, forty-four miles are ghaut lines, and thirty-five miles are bridle-paths. Thirty-six bridges of over twenty feet span have been kept in repair on these roads and the chuttrums and toll-houses along the roads. Thirteen miles of the roads have been improved as to width, revetting, etc.

Miscellaneous Public Improvements.—This expenditure has been made in keeping in repair the channel running from the Marlimund Reservoir.

SUBMITTED for the information of Government.

2. The grant was fully utilized; indeed, the expenditure rather exceeded the allotment.

3. The public works on the Nilgiris are chiefly confined to the construction and repair of roads and public buildings. The former appertain to Local Funds; of the latter, a large proportion are military.

4. Two hundred and thirty-eight miles of road are stated to have been kept in repair, but the Commissioner does not state if their condition is satisfactory.

5. The Board refrain from offering any remarks on this report as they believe that the Members of Government being on the spot will have opportunity of satisfying themselves as to the state of public works in the district.

(A true Copy and Extract.)

Secretary.

To the Secretary to Government, Public Works Department.
Copy to the Acting Secretary to Government, Revenue Department.
to the Commissioner of the Nilgiris.

Ed. A. S. Rodgers.

Ms No 1873. The following
BOARD of Revenue,
MADRAS.

PROCEEDINGS, 29TH JULY 1873, No. 1,429.

Ms No 1873
Aug 11/73
 Encl.

Received *by the Secretary*

JULY.
 No. 1,429.

Public Works—on Nilgiris.—Report on progress of—during 1872-73, submitted to Government.

Ms No 1873
GOVT. of MADRAS
PUBLIC WORKS.

To *The District Officer*

Nilgiris

Dated
 Recd. Encl.

Ms No 1873
 Nos. 2187-2197.

Public Works in the

Nilgiris. Nos. 2187

to 2 of Nov. in Nilgiris

about the Public Works

for 1872/73, and to

the District Officer, Nilgiris.

Ms No 2037
Communicated to the St Engineer
Nilgiris. E.M.M.

Ms No 1873
Aug 11/73