M.R.O. 1—77,006—8-6-37.

(1) Number of pages _____

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(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 2471 Press Mis.

472-73

Dated 27-9- 1871.

Not to be folded or roughly handled

No. 472. Read the following letter from the Officiating Chief Engineer for Irrigation and Joint Secretary to Government, to the Secretary to Government, Public Works Department, dated Fort St. George, 9th September 1871, No. 74 :—

I HAVE the honour to submit the following report on the progress made in the works of the Madras Irrigation and Canal Company during the quarter ended 31st December 1870. The delay in its submission has been caused partly by the changes in the *personel* of the office since the commencement of the current year, and by the non-submission till a recent date of establishment returns called for from the Agent and Manager of the Company.

Expenditure during the quarter.—There was a falling off in the progress made during the quarter as indicated by the diminution of expenditure, which amounted to Rupees 1,31,261, as against Rupees 1,99,213 in the previous quarter.

2. The following is a detailed statement of the items on which the above outlay was made :—

1*st Section, Main Canal.*—Rupees 70-6-2 were expended on the 1st Section of the Main Canal, 1 to 17¼ miles, for Special Superintendence and Sundries.

2*nd Section.*—Rupees 131-10-5 on the 2nd Section from the 18th to the 32nd mile, the items being,—

	Rs.	A.	P.
Puddling the face of Nos. 2, 3 and 4 walls	36	7	4
Bridge, second class, for Poodoor	66	2	0
General Contingencies	29	1	1

3*rd Section.*—Rupees 1,047-8-11 on the 3rd Section from the 33rd to the 43rd mile, the details being,—

Masonry wall in banks	16	10	0
Bridge, second class, at Mallyala	33	9	0
Do., third class, at Satinacotta	32	4	2
Sultanpoor tunnel...	676	4	0
Contingencies for earth and masonry works	288	13	9

4*th Section.*—Rupees 391-13-6 on the 4th Section or miles 44 to 60 of the Canal, namely,—

Revetment and pitching	325	14	8
Bridge No. 2 at 60th mile	0	12	0
Contingencies	65	2	10

5*th Section.*—Rupees 238-11-8 on the 5th Section from the 61st to the 72nd mile, the items being,—

Excavation and embankment	5	0	0
One culvert	13	8	0
Bridge, second class, at Jootoor...	1	2	0
Do., do., at Terrogopilly	114	10	0
Contingencies	104	7	8

6*th Section.*—Rupees 5,740-0-11 on the 6th Section, or miles 73 to 92, namely,—

Excavation and embankment	112	14	5
Catch-water drain 2,835	283	7	11
Scouring sluice in the 73rd mile	361	8	7

	Rs.	A.	P.
Head-sluice	284	6	0
Lock No. 1, regulating	164	1	6
Do. „ 2	1,522	10	5
Do. „ 2-A	242	10	8
Do. „ 3	0	11	0
Do. „ 4	17	0	0
Do. „ 5	2,029	9	1
Do. „ 6	62	4	0
Do. „ 7	182	7	4
Do. „ 8	5	0	0
Do. „ 9	61	15	6
Do. „ 9-A	0	11	0
Do. „ 10	95	6	0
Do. „ 11	45	14	0
Do. „ 12	21	0	0
Lock gate	151	2	11
Contingencies	95	4	7

7th Section.—Rupees 789-5-11 on the 7th Section, miles 93 to 113, for,—

Embankment and cutting	327	5	6
Anicut and head-works	149	12	7
Regulating lock	8	8	0
Bridge, second class, 93rd mile	0	12	0
Do., do., 96th do.	0	12	0
Do., do., 98th do.	0	12	0
Do., third class, 100th do.	5	12	0
Do., second do., 105th do.	3	6	2
Do., first do., 107th do., Ayaloor	36	4	0
Do., third do., 108th do.	137	15	6
Do., second do., 110th do.	35	12	5
Do., first do., 112th do.	34	0	0
Three culverts	7	0	0
Aqueduct No. 20	4	0	0
Contingencies	37	5	9

8th Section.—Rupees 35,416-7-10 on the 8th Section, miles 114 to 143, the items being,—

Embankment and cutting	1,904	2	10
Lock at 115th mile	36	6	0
Do. at 117th do.	44	4	0
Do. at 118th do.	21	4	0
Do. at 119th do.	3,303	11	5
Do. at 121st do.	60	12	0
Do. at 122nd do.	1,536	1	2
Do. at 123rd do.	1,656	11	11
Do. at 124th do.	4,073	14	2

	Rs.	A.	P.
Lock at 125th mile...	4,161	1	1
Do. at 126th do.	1,658	10	0
Do. at 129th do.	3,532	7	11
Do. at 132nd do.	1,445	12	8
Do. at 136th do.	4,293	14	0
Do. at 137th do.	1,446	12	8
Do. at 140th do.	1,466	4	9
Do. at 142nd do.	1,446	0	2
Do. at 144th do.	1,451	12	2
One culvert	180	0	0
Calingulah and sluices with waste channel and a second-class bridge over channel above first lock	9	13	6
Nine waste weirs	1,153	12	1
Bridge at 134th, 135th, and 143rd miles...	524	5	10
Special Superintendence and Sundries	8	9	6

9th Section.—Rupees 41,410-1-6 on the 9th Section, or miles 144 to 178 of the Canal, namely,—

Earthwork	16,553	5	3
Head-sluice at Rajoly	55	8	0
Aqueduct at Vaikalar 149th mile	2	5	4
Do. of six arches at 166th do. 15 chains	1,974	0	8
Do. at 167th do. 21 do.	2,075	13	0
Lock at 169th do. 22 do.	1,904	13	4
Do. at 169th do. 60 do.	1,583	13	9
Do. at 170th do. 21 do.	1,500	12	8
Do. at 171st do. 60 do.	1,752	6	0
Do. at 172nd do. 50 do.	1,502	12	6
Do. at 174th do. 45 do.	2,491	6	0
Do. at 174th do. 74 do.	1,876	11	11
Do. at 176th do. 13 do.	2,717	3	0
Do. at 177th do. 72 do.	950	5	4
Eight culverts	2,248	5	5
Public road bridge at 150th mile 31 chains	178	5	4
Do. at 158th do. 69 do.	341	0	0
Two surplus weirs	169	12	0
Contingencies for road diversion	71	11	7
Special Superintendence and Sundries	1,459	10	5

10th Section.—Rupees 4,639-3-11 on the 10th Section, miles 179 to 186 of the Canal, the particulars being,—

Earthwork and embankment	3,275	15	0
Head lock and bridge at Adamapully	723	2	2
Scouring sluice at terminus	150	0	0
Contingencies	490	2	9

Works.	Amount of Estimate.	Expenditure up to 30th Sept. 1870.	Cost during the quarter ended 31st Dec. 1870.	Total Expenditure.	Add amount transferred to this from other works.	Deduct refunds to this from other works.	Total net Expenditure.	Amount. Available.	Amount. Increase of Estimate.
Main Supply.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Anicut and head-works at Kurnool	3,03,080	60,327	.....	60,327	.....	.....	60,327	2,42,753	.....
Do. do. at Soonkasala	4,85,122	4,70,098	.....	4,70,098	.....	.....	4,70,098	15,024	.....
Do. do. at Somaishweram ...	1,71,727	66,120	.....	66,120	.....	.....	66,120	1,05,607	.....
Do. do. at Adamapully	3,44,440	3,57,845	24,945	3,82,790	.....	541	3,82,249	.....	37,809
Aqueduct across the river Hindry	2,76,250	2,76,325	.....	2,76,325	.....	.....	2,76,325	.....	75
Canal for one mile from the head-sluice of the Kurnool Anicut	65,000	49,285	.....	49,285	.....	.....	49,285	15,715	.....
Main Canal, 1st Section, 17¼ miles ...	10,73,687	10,95,084	70	10,95,154	.....	307	10,94,847	.....	21,160
Do., 2nd do., 18th to 32nd mile ...	19,63,370	19,57,827	132	19,57,959	.....	527	19,57,432	5,938	.....
Do., 3rd do., 33rd to 43rd do. ...	9,75,790	9,05,629	1,048	9,06,677	.....	192	9,06,485	69,305	.....
Do., 4th do., 44th to 60th do. ...	10,55,521	9,78,450	392	9,78,842	.....	461	9,78,381	77,140	.....
Do., 5th do., 61st to 72nd do. ...	8,80,738	8,68,791	239	8,69,030	.....	.....	8,69,030	11,708	.....
Do., 6th do., 73rd to 91st do. ..	9,43,427	8,10,359	5,740	8,16,099	.....	350	8,15,749	1,27,678	.....
Do., 7th do., 92nd to 114th do. ...	7,48,483	6,46,394	789	6,47,183	.....	193	6,46,990	1,01,493	.....
Do., 8th do., 115th to 143rd do. ...	7,80,111	7,05,426	35,417	7,40,843	.....	.....	7,40,843	39,268	.....
Do., 9th do, 144th to 178th do. ...	9,45,837	6,53,231	41,410	6,94,641	.....	275	6,94,366	2,51,471	.....
Do., 10th do., 179th to 186th do. ...	2,57,147	1,63,896	4,639	1,68,535	4	254	1,68,285	88,862	.....
Total...	1,12,69,730	1,00,65,087	1,14,821	1,01,79,908	4	3,100	1,01,76,812	11,51,962	59,044
Distribution.									
Branch Channels and sluices of 1st Section ...	7,003	5,128	46	5,174	.....	.....	5,174	1,829	.....
Distribution Works of 2nd do. ...	6,000	4,732	223	4,955	.....	.....	4,955	1,045	.....
Do. do. of 3rd do. ...	11,150	10,196	.....	10,196	.....	.....	10,196	954	.....
Do. do. of 4th do. ...	46,777	22,776	1,981	24,757	.....	.....	24,757	22,020	.....
Constructing a bund across the canal in the 45th mile, 4th Section	76	73	.....	73	.....	.....	73	3	.....
Distribution Works of 5th Section	20,550	787	104	891	.....	.....	891	19,659	.....
Do. do. of 6th do.	71,400	11,203	10,677	21,880	.....	.....	21,880	49,520	.....
Do. do. of 7th do.	27,045	130	46	176	.....	.....	176	26,869	.....
Do. do. of 8th do.	19,200	.....	971	971	.....	.....	971	18,229	.....
Do. do. of 9th do.	15,008	480	393	873	.....	.....	873	14,135	.....
Do. do. at Soonkasala	925	925	.....	925	.....	.....	925	.....	.....
Kurnool town water-supply	1,699	1,417	.....	1,417	.....	.....	1,417	282	.....
Total...	2,26,833	57,847	14,441	72,288	.....	.....	72,288	1,54,545	.....

Proceedings of the Madras Government, Public Works Department, 27th September 1871.

namely,—

Adamapully head-works.—The expenditure on these was Rupees 24,945-7

	Rs.	A.	P.
Anicut across the Pennair...	20,677	14	9
Under-sluice, south side	778	13	2
Head-sluice at do.	4	10	0
Flood banks with side	951	3	6
Stop banks south, including contingencies	2,532	14	0

3. *Distribution Works.*—The outlay on the works of distribution was Rupees 14,441-4-9, namely,—

	Rs.	A.	P.
1st Section	46	1	1
2nd do.	223	0	6
4th do.	1,981	5	5
5th do.	104	0	2
6th do.	10,676	15	6
7th do.	45	6	11
8th do.	971	2	5
9th do.	393	4	9

4. *Buildings.*—Nothing has been spent upon buildings during the quarter.

5. *Telegraph line.*—Rupees 1,999-4-1 were expended on the telegraph line from Soonkasala to Cuddapah.

6. *Abstract of Expenditure.*—The following statement shows the expenditure on all works from the commencement to the close of the quarter compared with the sanctioned estimates.

Works.	Amount of Estimate.	Expenditure up to 30th Sept. 1870.	Cost during the quarter ended 31st Dec. 1870.	Total Expenditure.	Add amount transferred to this from other works.	Deduct refunds to this from other works.	Total net Expenditure.	Amount Available.	Amount Increase of Estimate.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Buildings.									
Central Hospital, with out-houses and compound wall, at Kurnool	5,050	4,781	.....	4,781	.....	.....	4,781	269	.....
Repairs to do.	68	60	.....	60	.....	.....	60	8	.....
Overseer's hut at Kurnool...	1,245	.....	.....	.....	.....	.....	.....	1,245	.....
Office, Store-house, and Workshop at Soonkasala.	5,947	5,986	.....	5,986	.....	.....	5,986	.....	39
Powder Magazine, Store, and Station roads at Bowanassy	4,359	4,359	.....	4,359	.....	.....	4,359	.....	.....
Office and Store-room and Artificers' shed at do.	7,298	7,523	.....	7,523	.....	.....	7,523	423	.....
Repairing the above buildings at do.	648	.....	.....	.....	.....	.....	.....	.....	.....
Improvement of the road approaching to the above buildings and repairing culverts at do.	578	318	.....	318	.....	.....	318	260	.....
Converting the unfinished building intended for a Gun Powder Manufactory into a Hospital at Bowanassy	427	31	.....	31	.....	.....	31	396	.....
Office and Store building at Valapanoor in do. ...	1,970	1,990	.....	1,990	.....	.....	1,990	.....	20
Do. do. at Jupad in the Nagatoor Division...	4,123	4,782	.....	4,782	.....	.....	4,782	.....	659
Do. do. at Puggydial in do. ...	3,977	3,833	.....	3,833	.....	.....	3,833	144	.....
Do. do. at Chintagoonta in Kundar Division.	5,283	5,278	.....	5,278	.....	.....	5,278	5	.....
Do. and temporary Store-shed at Ayalore in do.	612	67	.....	67	.....	.....	67	575	.....
Repairs to Anicut Office at Zorapore	327	308	.....	308	.....	.....	308	19	.....
Office, Store, and Workshop at Kurnool... ...	30,612	14,492	.....	14,492	.....	.....	14,492	16,120	.....
Iron and Brass Foundry at do.	15,328	15,168	.....	15,168	.....	.....	15,163	160	.....
Room for receiving and despatching stores at do....									
Quarters for Sub-Assistant Engineers and Assistant Surveyors at Kundoor	1,236	561	.....	561	.....	.....	561	675	...
Engineer's bungalow at Dhoor	4,980	4,923	.....	4,923	.....	.....	4,923	57	.....
Total...	94,008	74,460	.....	74,460	.....	.....	74,460	20,356	718
Line of Telegraph	49,440	52,954	1,999	54,953	658	2	55,609	.....	6,169
Grand Total...	1,16,40,101	1,02,50,348	1,31,261	1,03,81,609	662	3,102	1,03,79,169	18,26,863	65,931

Quarter's Expenditure.—It will be remarked that the expenditure of the quarter is shown to have been Rupees 1,31,261, and the net total outlay up to 31st December 1870 Rupees 1,03,79,169.

7. *Excess Expenditure.*—The subjoined statement shows the expenditure in excess of sanction at the end of the quarter to have been Rupees 65,931:—

Works.	Excess expenditure up to 30th Sept. 1870	Excess expenditure during the quarter ended 31st Dec. 1870.	Total.	Add transferred to this from other works.	Deduct refunds.	Excess net expenditure on 31st Dec. 1870.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Main Supply.						
Hindry Aqueduct...	75	...	75	...	...	75
Anicut and head-works at Adamapully ...	13,405	24,945	38,350	...	541	37,809
Main Canal, 1st Section	21,397	70	21,467	...	307	21,160
Total...	34,877	25,015	59,392	...	848	59,044
Buildings.						
Office, Store-house, and Workshop at Soonkasala	39	...	39	...	...	39
Do. do. at Valapanoor ...	20	...	20	...	...	20
Do. do. at Jupad ...	659	...	659	...	...	659
Total...	718	...	718	...	...	718
Line of Telegraph	3,514	1,999	5,513	658	2	6,169
Grand Total...	39,109	27,014	66,123	658	850	65,931

8. *Preparation of Revised Estimates.*—Revised estimates for the anicut and head-works at Adamapully were submitted to Government on the 2nd August 1871, but in their Order of the 22nd August 1871, No. 2,157, the Government directed that the documents should be returned to the Agent and Manager with a view to a comparative statement showing the total expenditure on the works, with full explanation of the causes of difference between the estimated and actual expenditure being furnished.

The Agent has been requested to submit a revised estimate of the 1st Section, Main Canal, on which a large excess appears.

Similar documents have been called for in the case of the Jupad bungalow.

The Agent has further been requested to explain the cause of the excess expenditure on the works marginally noted, and to state whether they have been completed, in order to enable the Chief Engineer to sanction the excess expenditure which is within 5 per cent. of the sanctioned estimates.

Hindry aqueduct, Office, Store-house, and Workshop at Soonkasala.
Do. do. at Valapanoor.

The former excess outlay on the line of telegraph is covered by the sanction given in G. O., No. 1,377, of the 19th May 1871.

9. *Estimates submitted to Government during the quarter.*—The following estimates were received from the Agent and submitted to Government during the quarter,—

	Rs.	A.	P.
(1.) Bill of cost for repairing Soonkasala anicut for season, 1870	78	0	0

		RS.	A.	P.
(2.)	Plans and estimates for distribution works, 1st Range, 7th Section, ...	25,000	0	0
(3.)	Do. do., 8th Section	19,200	0	0
(4.)	Plans and estimates for repairing breaches, 2nd Section, Main Canal	42,616	10	8
(5.)	Do. do. for distribution works, 10th Section	10,000	0	0
(6.)	Do. do. for repairing breaches, 1st Section, Main Canal	8,185	10	0
(7.)	Do. do. for repairing slips in the revetment of 52nd, 58th, and 59th miles of 4th Section, Main Canal	1,210	0	0
(8.)	Estimates for clearing silt in the first 5 miles during 1871-72	6,470	0	0

Estimates sanctioned.—Of these the first three received the sanction of Government during the quarter and the rest were since sanctioned.

10. *Cost of Establishments.*—The cost of executive permanent establishments amounts for this quarter to 24·00 per cent. on the expenditure for construction, that of the temporary establishments to 1·82 per cent., and that of general management to 16·08 per cent.

Total cost of Establishments.—The total cost of the permanent establishment was, therefore, 40·08, and of temporary establishments 1·82 per cent. on the expenditure.

No. 473.

ORDER THEREON, 27th September 1871, No. 2,471.

IRRIGATION, No. 29.

ORDERED that this report be forwarded to the Home Government:—

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Chief Engineer for Irrigation.
" Agent and Manager of the Madras Irrigation and Canal Company.

Exd. E. C. Shunker.

PUBLIC WORKS DEPARTMENT.

No. 20 of 1871.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR INDIA.

MY LORD DUKE,—We have the honour to forward the accompanying report on the progress of the works of the Madras Irrigation and Canal Company during the quarter ended 31st December 1870.

Dated 27th September 1871, No. 2,471.

We have the honour to be,
My Lord Duke,
Your Grace's most obedient,
humble servants,

OOTACAMUND,
11th ~~September~~ October 1871.

Exd. E. C. Shunker.

FORT SAINT GEORGE.

PUBLIC WORKS DEPARTMENT.

Letter to the Right Honourable the Secretary of State for India.

Dated 11th October September
No. 20 of 1871.

FORWARDING the report on the progress of the works of the Madras Irrigation and Canal Company during the quarter ended 31st December 1870.

Public Works Department

No. 2471.

Proceedings of the Madras Government

Read the following

From

The Offg Chief Engineer for Irrigation } (No. 674 & 9th Septr. 1871)

Ordered that this report be forwarded to the Home Government.

To

The Chief Engr. for Irrign. &c.
" Agent & Manager M. I. & Co.

Desp. 5/10/71
Despatch No 20 of 1871

Pro: 27th Sept/71 No 2471

The Right Honorable
the Secy: of State for India.

My Lord Duke.

We have the honor to forward the accompanying report on the progress of the works of the Madras Irrigation and Canal Company during the quarter ended 31st Dec/70.

We &c.

Encl.

15 Pkts.

Fort St George

Public Works Department

Letter to the Right Honorable
the Secretary of State for India

dated 11th October 1871 No 20
Original Copy sent per Overland
Mail on the 11th Octr 1871

Copy sent to Govt of India
on the 11th October 1871

Works - Passing orders on the Report
on the progress of the works of the
Madras I & C Co during the
Quarter ended 31st December 1870

Letter.

Forwarding the report on
the progress of the works of the
Madras Irrigation & Canal
Company during the quarter
ended 31st December 1870.

P. W. Letter Copy Book Madras
No 20 of 1871

Clo 4300-

Govt. of Madras. 1871

PUBLIC WORKS.

To the Chief Engr for Irrigation.

Dated

Read. Desp.

G. O. 27 Sept. No. 2471.

Nos. 4721 & 4722

Works - Passing orders on the report on the progress of the works of the Madras Irr: & Co. during the quarter ended 31st Dec. 70

4 Forwarding the report on the progress of the works of the Madras Irrigation & Canal Company during the quarter ended 31st Dec. 70.

Copy to Ind. Office 18