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MADRAS RECORD OFFICE.**Government of Madras.***Public works* **DEPARTMENT.**

G.O. No. 495

Press
Mis-

367-68

Dated 22. 2. 1972.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
22nd February 1872.*

No. 367. Read the following letter from the Acting Chief Engineer for Irrigation, to the Secretary to Government, Public Works Department, dated Fort St. George, 6th February 1872, No. 108 :—

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 30th June 1871.

Expenditure during the quarter.—The total expenditure for the period under review amounted to Rupees 2,01,879, as compared with Rupees 1,61,835 for the previous quarter.

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

1st Section, Main Canal (including head-works).—Rupees 3,696-15-2 on the 1st Section, Main Canal, 1 to 17½ miles, the items being—

	RS.	A.	P.
Anicut and head-works	1	10	9
Repairing apron of head-sluice	27	1	3
Earthwork	853	2	0
Revetment and shingling	334	1	2
Bridge, second class, at Dudiala	474	8	3
Do., do., at Yedaroo	842	14	1
Do., third class, at Nedapod	313	5	6
Do., do., at Mungalapad	199	1	4
Do., do., at Mamdialpad	301	0	11
Five waste weirs	307	6	8
Special superintendence and sundries	42	11	3

2nd Section.—Rupees 4,200-15-6 on the 2nd Section from the 17½ to the 32nd mile, the particulars being—

Earthwork	214	14	0
Removing and reforming bank	123	2	0
Canal walls	2,044	9	0
Bridge, first class, at 29th mile	195	0	0
Waste weir No. 13 at 25th mile	1,473	11	6
Aqueduct at Kaderbagh	3	9	0
Culvert No. 12 at 20th mile	82	0	0
Contingencies	64	2	0

3rd Section.—Rupees 3,238-10-8 on the 3rd Section from the 33rd to the 43rd mile, the details being—

Excavation and embankment	200	0	0
Bridge, second class, close to Calingulah No. 15	309	0	0
Do., third do., at Satanicottah	441	3	8
Do., third do., at Muddygutla	1,322	0	4
Sultanpoor tunnel at 33rd mile	893	0	0
Scouring sluice at 42nd mile	12	11	6
Contingencies for earth and masonry works	60	11	2

4th Section.—Rupees 141-9-2 on the 4th Section, or miles 44 to 60 of the canal, namely—

Bridge No. 1 at 45th mile	25	0	0
Do. No. 3 at 57th mile	7	8	0
Waste weir and apron No. 1, at 47th mile	60	0	0
Two culverts	17	14	0
Contingencies for earth and masonry works	31	3	2

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5th Section.—Rupees 374-10-9 on the 5th Section from the 61st to the 72nd mile, the items being—

	ES.	A.	P.
Excavation and embankment	...	...	...
Aqueduct at Terrogopully	...	...	...
One culvert	...	...	...
Scouring sluice and channel at 70th mile	...	...	...
Bridge, second class, at Pumalpaud	...	...	...
Do., do., at Jootoor	...	...	...
Do., do., at Terrogopully	...	...	...
Contingencies	...	...	...
Repairs to slip at 63rd mile	...	...	...
6th Section — Runag	...	...	...

6th Section.—Rupees 18,561-0-9 on the 6th Section,
or miles 73 to 91, namely—

For excavation and embankment	...	...	...	1,823	4	6
Scouring sluice in the 73rd mile	...	...	...	79	15	8
Head-sluice ...	...	...	...	54	10	8
Lock No. 1, regulating	...	...	...	1	8	0
Do. „ 2, with second-class bridge	...	...	...	44	5	0
Do. „ 2-A, „ „ „	...	...	...	3	0	0
Do. „ 4, with Culvert roadway	...	...	...	857	15	0
Do. „ 5, „ „ „	...	...	...	48	12	9
Do. „ 6, with three culverts 15 span...	...	...	...	38	14	0
Do. „ 7, with culvert roadway	...	...	...	4	3	2
Do. „ 8, with bridge, second class	...	...	...	584	2	4
Do. „ 9, „ „ „ „	...	...	...	569	11	3
Do. „ 9-A, three culverts 15 span	...	...	...	329	12	0
Do. „ 10, „ „ 15 „	...	...	...	458	13	0
Do. „ 11, bridge, second class	...	...	...	286	15	2
Do. „ 12, „ „ „	...	...	...	371	9	0
Two culverts	...	...	...	143	8	8
Bridge No. 1 at 75th mile	...	...	...	57	0	0
Do., second class, at Valapanoor	...	...	...	25	14	8
Lock gate ...	...	...	...	12,720	4	10
Contingencies	...	...	...	56	13	1

7th Section:—Rupees 8,424-3-11 on the 7th Section, miles 92 to 114, for—

Embankment and cutting	...	...	...	...	2,516	6	5
Aicut and head-works	...	...	...	...	864	7	10
Regulating lock	...	...	...	...	1,400	9	4
Bridge No. 1, 92nd mile	...	...	...	...	40	0	0
Do., second class 93rd "	...	...	...	...	69	11	3
Do., " " 96th "	...	...	...	...	31	11	0
Do., " " 98th "	...	...	...	...	20	0	10
Do., third " 100th "	...	...	...	...	5	10	0
Do., second " 102nd "	...	...	...	...	242	12	5
Do., " " 105th "	...	...	...	...	133	8	0
Do., first " 107th "	Ayaloor	...	...	...	273	3	3
Do., third " 108th "	...	...	...	...	376	8	2
Do., second " 110th "	...	...	...	...	510	14	10
Do., first " 112th "	...	...	...	...	135	12	9
Four culverts	...	...	...	...	468	15	1
Aqueduct No. 19	...	...	...	...	110	0	0

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						RS.	A.	P.
Aqueduct No. 20	...	...	...	...	...	981	11	6
Contingencies	...	...	...	...	...	182	5	3

8th Section.—Rupees 30,166-13-0 on the 8th Section, miles 115 to 143, the items being—

Embankment and cutting	...	...	...	2,701	0	3
Lock of 10 feet lift at 117th mile	...	...	...	636	6	6
Do. do. do. at 118th do.	...	...	...	279	12	9
Do. do. do. at 121st do.	...	...	...	294	1	10
Do. do. do. at 122nd do.	...	...	...	193	11	4
Do. do. do. at 123rd do.	...	...	...	192	4	10
Do. do. do. at 124th do.	...	...	...	187	2	7
Do. do. do. at 125th do.	...	...	...	197	9	11
Do. do. do. at 126th do.	...	...	...	190	4	7
Do. do. do. at 137th do.	...	...	...	924	14	1
Do. do. do. at 115th do.	...	...	...	301	15	11
Do. of 8 do. at 119th do.	...	...	...	974	13	3
Do. of 7 do. at 129th do.	...	...	...	123	4	7
Do. of 13½ do. at 132nd do.	...	...	...	265	14	7
Do. of 13½ do. at 136th do.	...	...	...	388	2	7
Do. of 12 do. at 140th do.	...	...	...	307	12	7
Do. do. do. at 142nd do.	...	...	...	309	2	7
Do. of 11 do. at 144th do.	...	...	...	388	2	6
Bridge, second-class, at 114th do.	...	...	...	370	0	0
Bridges at 134th, 135th, and 143rd miles...	...	...	...	404	13	1
Culvert No. 1 at 129th mile	...	...	...	40	0	0
Waste weir and sluice with waste channel and second-class bridge over channel over first lock	...	...	...	2,256	11	3
Six waste weirs	...	...	...	1,915	3	0
Special superintendence and sundries	...	...	...	122	14	6
Stores and store charges	...	...	...	16,200	9	11

9th Section.—Rupees 58,529-9-8 on the 9th Section, or miles 144 to 178 of the canal, namely—

Earthwork	7,956	4	8
Anicut across the Koondaur at Rajoly	596	3	10
Head-sluiice at Rajoly	51	6	0
Lock of 8 feet drop at 169th mile	5,149	0	3
Do. of 10 do. at 169th do.	5,100	4	3
Do. of 10 do. at 170th do.	5,093	2	10
Do. of 12 do. at 171st do.	5,145	9	8
Do. of 10 do. at 172nd do.	5,088	8	5
Do. of 10 do. at 174th do.	5,200	1	11
Do. of 8 do. at 174th do.	5,122	9	2
Do. of 10 do. at 176th do.	5,173	3	9
Do. of 13 do. at 177th do.	2,330	1	0
Culverts	53	9	4
Public road bridge at 150th mile	8	13	4
Alteration and diversion of public road	1	0	0
One waste weir at 159th mile	11	0	0
Puddling bank at 164th do.	630	0	0
Shingling, 114th and 145th miles	2,000	0	0
Raising bank from 152nd to 159th miles	898	0	0
Special superintendence and sundries for earthwork	251	8	8
Stores	2,669	2	7

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10th Section.—Rupees 16,053-13-8 on the 10th Section,
miles 179 to 186 of the canal, the particulars being—

	RS.	A.	P.
Excavation and embankment	11,921	8	2
Head lock and bridge at Adamapully	756	2	9
Aqueduct over Punkalwunka	182	5	9
Do. at 84th mile 85 chains	322	9	6
Two culverts	1,195	8	1
Over-bridge, second class, at 183rd mile 75 chains	278	8	9
Bridge over scouring sluice channel under main road to Kurnool	248	15	0
Scouring sluice at terminus	760	12	3
Contingencies for earthwork	387	7	5

Adamapully Anicut.—Rupees 17,274-1-0 on this work,
the items being,—

Anicut across the Pennair	10,136	13	5
Under sluice, south side	771	9	1
Head-sluice	3,337	11	8
Flood bank, north side	361	0	0
Stop bank, south do.	2,522	14	1
North wing-wall	114	0	9

3. Distribution Works.—The outlay on works of distribution was Rupees 24,665-1-3, namely, on the—

1st Section	26	15	7
2nd do.	13	12	2
4th do.	3,222	1	0
5th do.	2,811	9	8
6th do.	5,063	3	8
7th do.	3,964	13	3
8th do.	3,312	1	10
9th do.	2,417	15	1
10th do.	3,832	9	0

4. Breach repairs of August 1870.—The outlay on breach repairs from August 1870 to 30th June 1871 was Rupees 56,016-8-8 on the items shown below—

Soonkasala Anicut	1,213	7	0
1st Section, Main Canal	5,535	2	8
Hindry Aqueduct	3,897	0	8
2nd Section, Main Canal	42,831	12	4
3rd do., do.	1,547	8	4
4th do., do.	991	9	8
The amount spent during the quarter was	14,842	6	11

5. Buildings.—Rupees 633 were expended under this head on office, store, and workshop buildings at Kurnool.

6. Telegraph line.—Rupees 1,076-15-1 were expended on the telegraph line from Soonkasala to Cuddapah.

7. 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.

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Works.	Amount of Estimate.	Expenditure up to 31st March 1871.	Cost during the quarter ended 30th June 1871.	Total Expenditure.	Add amount transferred to this from other works.	Deduct re-funds to this from other works.	Total Net Expenditure.	Amount.	
								Available.	Increase of Estimate.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Main Supply.									
Anicut and head-works at Kurnool	3,03,080	60,327	60,327	60,327	...	...	60,327	2,42,753	...
Do. do. at Soonkasala	4,85,122	4,70,189	...	4,70,209	...	...	4,70,209	14,913	...
Do. do. at Somaswaram	1,71,727	66,134	...	66,134	...	...	66,134	1,05,593	...
Do. do. at Adamapully	3,44,440	4,22,553	17,274	4,39,827	680	...	4,39,147	...	94,707
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, 171 miles	10,73,687	10,93,233	3,668	10,96,907	305	...	10,96,602	...	22,915
Do. 2nd do., 18th to 32nd mile	19,63,370	19,63,309	4,201	19,68,110	384	...	19,67,726	...	4,356
Do. 3rd do., 33rd to 43rd do.	9,75,790	9,63,983	3,239	9,69,227	628	...	9,68,599	67,191	...
Do. 4th do., 44th to 60th do.	10,53,521	9,79,827	141	9,79,968	...	...	9,79,968	73,553	...
Do. 5th do., 61st to 72nd do.	8,80,734	8,71,007	575	8,71,582	100	...	8,71,282	9,456	...
Do. 6th do., 73rd to 91st do.	9,43,427	8,40,552	18,591	8,59,113	...	...	8,59,113	84,314	...
Do. 7th do., 92nd to 114th do.	7,13,421	6,52,566	8,424	6,60,990	22	...	6,60,968	82,453	...
Do. 8th do., 115th to 113rd do.	7,80,111	7,76,822	50,167	8,06,989	93	...	8,06,896	...	20,755
Do. 9th do., 14th to 178th do.	9,45,837	7,06,630	58,529	7,65,159	1,092	...	7,64,067	1,81,770	...
Do. 10th do., 179th to 186th do.	2,56,327	1,76,346	16,654	1,92,400	...	...	1,92,400	63,927	...
Total...	1,12,63,848	1,03,11,690	1,60,662	1,04,72,352	3,304	...	1,04,69,048	9,43,638	1,48,838
Distribution.									
Branch channels and sluices of 1st Section	7,003	5,183	27	5,210	...	...	5,210	1,793	...
Distribution works of 2nd do.	6,000	5,007	14	5,021	...	...	5,021	979	...
Do. do. of 3rd do.	11,150	10,106	...	10,116	...	...	10,116	954	...
Do. do. of 4th do.	46,777	29,474	3,222	32,696	...	...	32,696	14,081	...
Constructing a bund across the canal in the 45th mile, 4th Section	76	73	...	73	...	...	73	3	...
Distribution works of 5th Section	20,550	5,186	2,812	7,998	...	...	7,998	12,552	...
Do. do. of 6th do.	71,400	33,579	5,063	38,642	...	...	38,642	32,758	...
Do. do. of 7th do.	42,045	332	3,965	4,297	...	...	4,297	37,748	...
Do. do. of 8th do.	49,000	2,316	3,312	5,628	...	...	5,628	43,372	...
Do. do. of 9th do.	46,448	4,071	2,418	6,469	...	...	6,469	39,979	...

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Works.	Amount of Estimate.	Expenditure up to 31st March 1871.	Cost during the quarter ended 30th June 1871.	Total Expenditure.	Add amount transferred to this from other works.	Deduct re-funds to this from other works.	Total Net Expenditure.	Amount:	
								Available.	Increase of Estimate.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Distribution.—(Concl.)</i>									
Distribution works of 10th Section	10,000	264	3,832	4,096	.....	.....	4,096	5,904	.....
Do. do. at Soonkasala	925	925	.....	925	.....	.....	925	.....	.....
Kurnool Town Water-supply	1,699	1,417	.....	1,417	.....	.....	1,417	282	.....
Total...	3,13,073	98,103	24,665	1,22,668	.....	.....	1,22,668	1,90,465	.....
Breach repairs of August 1870	68,570	42,199	14,842	57,041	.....	412	56,629	11,941	.....
<i>Buildings.</i>									
Central Hospital, with out-houses and compound wall, at Kurnool	5,050	4,781	.....	4,781	.....	.....	4,781	269	.....
Repairs to do. do.	68	60	.....	60	.....	.....	60	8	.....
Overseers' huts at Kurnool	1,245	.....	.....	.....	.....	.....	.....	1,245	.....
Office, Storehouse, 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, Store-room, and Artificers' shed at do. ..	7,298	7,523	.....	7,523	.....	.....	7,523	423	.....
Repairing the above buildings at do.	578	318	.....	318	.....	.....	318	260	.....
Improvement of the road approaching the above buildings, and repairing culverts at do.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Converting the unfinished building intended for a Gun Powder Manufactory into a Hospital at Bowanassy	427	31	.....	31	.....	.....	31	395	.....
Office and Store building at Valapanoor in do. ...	1,970	1,990	.....	1,990	.....	.....	1,990	.....	20
Do. do. at Juppaul in Nagatoor Division	4,123	4,782	.....	4,782	.....	.....	4,782	.....	639
Do. do. at Puggudial in do.	3,977	3,833	.....	3,833	.....	.....	3,833	144	.....
Do. do. at Chingagoonta in Koondaur Division.	5,283	5,278	.....	5,278	.....	.....	5,278	5	.....
Do. do. at Chingagoonta in Koondaur Division.	612	67	.....	67	.....	.....	67	575	.....
Repairs to Ancient Office at Zorapore	327	398	.....	398	.....	.....	398	19	.....
Office, Store, and Workshop at Kurnool	30,612	14,555	633	15,188	.....	.....	15,188	15,454	.....
Iron and Brass Foundry at do.	15,328	15,168		15,168			15,168	163	
Room for receiving and despatching stores at do....									

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Quarters for Sub-Assistant Engineers and Assistant Surveyors at Koorlaur	1,236	561		561			561	675	
Engineer's bungalow at Dhoor	4,080	4,923	.....	4,923	.....	.....	4,923	57	.....
Stance-keepers' huts	3,200	.....	.....	.....	.....	.....	.....	3,200	.....
Total...	97,298	74,493	633	75,126	.....	.....	75,126	22,890	718
Line of Telegraph	72,000	58,507	1,077	59,644	.....	1	59,643	12,357	.....
Grand Total...	1,18,14,781	1,05,84,952	2,01,879	1,07,86,831		3,717	1,07,83,114	11,81,231	1,49,556

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Quarter's Expenditure.—It will be remarked that the expenditure of the quarter is shown to have been Rupees 2,01,879, and the net total outlay up to 30th June 1871, Rupees 1,07,83,114.

7. Excess Expenditure.—The subjoined statement shows the expenditure in excess of sanction at the end of the quarter to have been Rupees 1,49,556.

Works.	Excess expenditure up to 31st Mar. 1871.	Excess expenditure during the quarter ended 30th June 1871.	Total.	Add trans-ferred to this from other works.	Deduct refunds.	Excess net expenditure on 30th June 1871.
<i>Main Supply.</i>						
Hindry Aqueduct...	Rs. 75	Rs. 75	Rs. 75	Rs. ...	Rs. ...	Rs. 75
Anicut and head-works at Adamapully ...	73,113	17,274	90,387	...	680	91,707
Main Canal, 1st Section ...	19,573	3,668	23,240	...	305	22,915
Do., 2nd do. ...	539	4,701	5,240	...	384	4,856
Do., 8th do. ...	...	26,878	26,878	...	93	26,785
Total...	93,279	52,021	1,50,300	...	1,469	1,49,839
<i>Buildings.</i>						
Office, Storehouse and Workshop at Soonkasala	39	...	39	...	...	39
Do. do. at Valampoor ...	20	...	20	...	...	20
Do. do. at Jupaud ...	659	...	659	...	...	659
Total...	718	...	718	...	...	718
Grand Total...	93,997	52,021	1,51,018	...	1,462	1,49,556

8. Preparation of Revised Estimates.—The Agent, whose attention has been called to the excess expenditure shown in the foregoing statement, states that he is now in correspondence with the Chief Engineer on the matter with a view to revised estimates being submitted in such cases as are necessary.

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

- (1.) Revised estimate of line of Telegraph from Soonkasala to Cuddapah ... Rs. 72,000
- (2.) Estimate for Distribution works, 1st Range, 9th Section ... 9,840
- (3.) Estimates for repairing the 4th and 5th Sections, Main Canal, for 1871 ... 1,640
- (4.) Estimate for certain modified arrangements in connection with the Jootoor anicut, 7th Section, in lieu of an estimate of Rupees 5,962½ ... 900
- (5.) Estimates for Distribution works, 2nd Range, 7th Section ... 15,000
- (6.) Estimate for repairing the Adamapully bungalow ... 530
- (7.) Estimate for Distribution works, 2nd Range, 9th Section ... 21,000
- (8.) Estimates for Distribution works, 3rd and 4th Ranges, 8th Section ... 29,800
- (9.) Estimate for erecting thirty-two Sluice-keepers' huts ... 3,200
- (10.) Estimate for repairing the Lockinsula bungalow ... 327

Estimates sanctioned.—The whole of these estimates, as well as an estimate of Rupees 1,470 for a masonry protection to the toe of the return band near Ulloro 3rd Section which was previously submitted, received the sanction of Government during the quarter.

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10. Cost of Establishments.—The cost of Executive permanent establishments amounts for this quarter to 11·2 per cent. on the expenditure for construction; that of the temporary establishments to ·3 per cent.; and that of the general management to 9·2 per cent.

Total cost of Establishments.—The total cost of the permanent establishment was, therefore, 20·4, and of temporary establishment ·3 per cent. on the expenditure.

No. 368. ORDER THEREON, 22nd February 1872, No. 495.

IRRIGATION, No. 31.

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.

Office of the Chief Engineer for Irrigation
No 108 Fort St George. 6 Feby. 1872.

From The Ag. Chief Engineer for Irrigation

To The Secretary to Government
P. W. Department

Sir

I have the honor to submit the following
report on the progress made in the works of
the Madras Irrigation and Canal Company
during the Quarter ended 30th June 1871.

Expenditure during . . . The total expenditure for the period under
the Quarter . . . review amounted to Rs 201879 as compared
with Rs 161885 for the previous Quarter.

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

1 st Section Main Canal (including head-works).	Rupes 3696-15-2 on the 1 st Section Main Canal 1 to 17 $\frac{1}{2}$ miles the items being:-
	Amcut and Head-works Rs 1-10-9
	Repairing Apron of Head Sluice 27-1-3

Earthwork	Rs 853	2	-	-
Excavation and Shingling	334	1	-	2
Bridge 2 nd Class at Bidiala	474	8	-	3
Do. " " Yedaroor	842	14	-	1
Do. 3 rd " " Nedapad	313	5	-	6
Do. " " Mungatapad	199	1	-	4
Do. " " Mandialpad	301	-	-	11
5 Waste Weirs	307	6	-	8
Special Superintendence and Sundries	42	11	-	3

Purpos 4200. 15. 6. on the 2nd Section from 2nd Section
the 17 $\frac{1}{2}$ to the 32nd mile the particulars being:

Earthwork	Rs 214-14--
Removing and reforming bank	123-2--
Canal walls	2044-9-3
Bridge 1 st class at 20 th mile	195--
Waste Weir No 19	25 th 1473-11-6
Aqueduct at Kaderbagh	3-9-
Culvert No 12 at 20 th mile	82--
Contingencies	64-2--

August 3238 - 10-8 on the 3rd Section from 3rd Section
the 33rd to the 43rd mile, the details being:-

Excavation and Embankment _____ P? 200-4-4

Bridge 2nd class close to Jalangulak 4th 15 — Rs. 309 — — —
 Do. 3rd — at Satanicottah — — — 441-3-8
 Do. 3rd — at Muddygutla — — — 1322- — 4
 Sultanpore Tunnel at 39th mile — — — 893- — —
 Scouring sluice at 42nd mile — — — 12-11-6
 Contingencies for Earth and Masonry Works — — — 60-11-2

4th Section

Referred 141-9-2 on the 4th Section or mile
44 to 60 of the final, namely:-

Bridge No. 1 _____ at 45th mile _____ £s 25-...
 Do. No. 3 _____ 57th _____ 7-8-..
 Waste weir and Apron No. 47th _____ 60-...
 2 Culverts _____ 17-14-..
 Contingencies for Earth and Masonry works _____ 31-3-2

5th section

... Surveys 374-16-9 on the 5th Section from
the 61st to the 72nd mile the stands being - 2

Excavation and embankment	Rs	6-10-0
Aqueduct at Ferrogopully		85-0-0
1 Culvert		19-0-0
Scouring sluice and channel at 70 th mile		19-4-0
Bridge 2 nd class at Punnalband		35-15-0
Do. 2 nd		66-5-0

Bridge 2nd class at Perrogopully R^o 2-...
 Contingencies 39-2-9
 Repairs to ship at 63rd mile 100-...

Purpos 18561-... on the 6th Section or 6th Section

miles 73 to 91 mainly for,

Excavation and unbankment R^o 1823-4-6
 Scouring Sluice in the 73rd mile 79-15-8
 Head Sluice 34-10-8
 Lock N^o 1 Regulating 1-8-
 " 2 with second class bridge 44-6-
 " 2 " " 3-
 " 4 with Culvert roadway 857-15-
 " 5 " 48-12-9
 " 6 with 3 Culverts 15 span 38-14-
 " 7 with Culvert roadway 4-3-2
 " 8 " Bridge 2nd class 584-2-4
 " 9 " do 569-11-3
 " 9 A 3 Culverts 15 span 329-12-
 " 10 " do 458-13-
 " 11 " Bridge 2nd Class 286-15-2
 " 12 " do 371-9-
 Two Culverts 143-8-8.

7th Section

Bridge N^o 1 at 75th mile R^o 57-...
 " 2nd class at Valapamoor 25-14-8
 Lock Lyali 12720-4-72
 Contingencies 56-13-1

Purpos 8424-3-11 on the 7th Section, miles 92 to 114, for,

Embankment and cutting R^o 2516-6-5
 Ancient and Head Work 854-7-10
 Regulating Lock 1460-9-4
 Bridge N^o 1 92nd mile 40-...
 " 2nd class 93rd 69-11-3
 " 1st " 96th 31-11-
 " 2nd " 98th 20-3-16
 " 3rd " 100th 5-10-
 " 2nd " 102nd 242-12-5
 " 2nd " 105th 133-8-
 " 1st " 107th Hyalora 279-3-3
 " 3rd " 110th 376-8-2
 " 2nd " 110th 518-14-10 2
 " 1st " 112th 135-12-9
 4 Culverts 468-15-1
 Aqueduct N^o 13 110-...
 " 20 981-11-6
 Contingencies 182-5-3

8th

... - Expenses 30165 13 in on the 20th Section miles 9th Section

115 to 143 the same being, ...

Embankment and cutting 2791.2.9

Lock of 10 feet lift at 117th mile 335.5.6

do 118th 279.12.3

do 119th 274.1.10

do 120th 193.11.4

do 121st 192.4.10

do 122nd 187.2.7

do 123rd 177.4.11

do 124th 170.4.7

do 125th 924.14.1

do 126th 901.15.11

do 127th 974.13.8

do 128th 123.4.7

do 129th 265.14.7

do 130th 300.2.7

do 131st 307.12.7

do 132nd 309.2.7

do 133rd 300.2.6

Bridge 2nd class 114th 970.1.1

Bridges at 134th 135th & 143rd miles 404.13.1

Culvert No. 1 at 129th mile 40.1.1

Waste

9th Section

Waste and price with waste 8

Channel and 2nd class 191 2256.11.3

Bridge over channel on 1

fill locks 9

by waste and 1915.2.3

Special Superintendence and Sundries 122.14.6

Stores and Store charges 16200.9.11

... Expenses 8523.9.11 on the 9th Section 2

on miles 14 to 178 of the final quantity

Earthwork 995.4.8

Trunk across the boundary at 147th mile 975.3.10.8

Head Stone 97.8.1.3

Lock of 8 feet drop at 169th mile 974.1.10

do 170th 970.4.1

do 171st 975.2.10

do 172nd 974.9.8

do 173rd 900.8.5

do 174th 920.1.11

do 175th 922.9.2

do 176th 973.3.9

do 177th 2330.1.1.8

Culverts 53.9.4

Public road bridge at 150th mile 8.13.4

Alteration and diversion of public road R^s 1-...
 One waste weir at 159th mile 11-...
 Puddling bank 164th mile 630-...
 Shingling 144th and 145th miles 2000-...
 Raising bank from 152nd to 159th 898-...
 Special Superintendence & Sundries for earthwork 251-8-8
 Stores 2669-2-7

Expenses 16053-13-8 on the 10th Section, miles 10th Section
 179 to 186 of the Canal, the particulars being:-
 Excavation and embankment R^s 11921-2-2
 Head Lock and bridge at Adanapully 756-2-9
 Aqueduct over Pankalwunka 182-5-9
 do at 24th mile 85 ch. 322-9-6
 Two Culverts 1195-8-1
 Over bridge 2nd class at 183rd mile 75 ch. 278-8-9
 Bridge over scouring sluice channel
 under main road to Kurnool 248-13-5
 Scouring sluice at Terminus 760-12-3
 Contingencies for earthwork 387-7-5

Expenses 17274-1-0 on this work the land Adanapully
 being, Annis
 Aqueduct across the Pennair R^s 10136-13-5
 Under sluice South side 771-9-1

Head sluice R^s 9937-11-8
 Flood bank North side 10-361-...
 Slope bank South 2522-14-1
 North wing wall 144-0-9

Distribution Works

The outlay on Works of Distribution was
 R^s 24665-1-3 namely, on the -
 1st Section R^s 26-15-7
 2nd 13-12-2
 4th 3222-1-0
 5th 2811-9-8
 6th 5063-3-8
 7th 3964-13-3
 8th 3312-1-10
 9th 2417-15-1
 10th 3832-9-0

Breach repairs The outlay on breach repairs from August
 of August 1870. 1870 to 30th June 1871 was R^s 56016-8-8 on the
 items shown below,

Soorkadala Aqueduct R^s 1213-7-0
 1st Section Main Canal 5535-2-8
 Hindry Aqueduct 3897-0-8
 2nd Section Main Canal 42831-12-4

Bibliation

Grand Channel and Canal of 1 st Section	7003	5105	27	5210	5210	1795
Bibliation Unit of 2 nd Section	6000	5007	14	5021	5021	979
3 rd Section	1100	10196		10195	10195	934
4 th Section	26777	29974	3222	32696	32696	14001
5 th Section	20000	5106	2012	7990	7990	12502
6 th Section	91400	33573	5063	30642	30642	32750
7 th Section	42045	332	3965	4297	4297	37700
8 th Section	49000	2916	3512	5620	5620	33972
9 th Section	66400	4051	2110	6469	6469	39979
10 th Section	17000	264	3012	4095	4095	3800
11 th Section	925	925		925	925	300
12 th Section	1699	1097		1117	1117	302
13 th Section	315079	9903	2665	12268	12268	19000
14 th Section	60590	3247	14042	57041	57041	1941
15 th Section	5000	60		4701	4701	269
16 th Section	1200	60		60	60	1000
17 th Section	5907	3906		5906	5906	1200
18 th Section	4359	4359		4359	4359	39
19 th Section	79240	7924		7523	7523	420
20 th Section	1448	1448		1448	1448	420

3rd Section Main Canal — Rs 1547-8-4
 4th Section — Rs 991-9-8.
 The amount spent during the Quarter was —
 Rs 14042-6-11

Rupees 633... were expended under Buildings
 this head on Office, Store and Workshop Buildings
 at Kurnool.

Rupees 1076-15-1 were expended on the Telegraph Line
 Telegraph line from Sontkadala to Gud-
 dapan

The following Statement shows the Abstract of
 expenditure on all works from the commencement expenditure
 to the close of the Quarter compared with the
 Sanctioned Estimates:-

It will be remarked that the expenditure of the Quarter is shown to have been Rs 201879 and the net total outlay up to 30th June 1871 Rs 10783114.

The Subjoined Statement shows the expenditure in excess of sanction at the end of the Quarter to have been Rs 149556.

Work.	Excess expenditure up to 31st March 1871	Excess expenditure up to 30th June 1871	Total	Refunds	Excess net expenditure on 30th June 1871
<u>Main Supply</u>					
Hindry Aqueduct	75	75	150		75
Minor & Head Works at ~~partially~~	7813	17274	25087	580	24507
Main Canal 1st Section	19552	23568	43120	365	42755
Do 2nd do	539	4201	4740	384	4356
Do 8th do		26878	26878	93	26785
Total	48279	52021	100300	1062	99238
<u>Buildings</u>					
Office Store house & Workshop at Sonkatola	39	39	78		39
Do Do Valapanoor	20	20	40		20
Do Do Jupand	659	659	1318		659
Total	718	718	1436		718
Grand Total	98997	52021	151018	1462	149556

Preparation of The Agent whose attention had been called Revised Estimates to the excess expenditure shown in the foregoing Statement states that he is now in correspondence with the Chief Engineer on the matter with a view to revised estimates being submitted in such cases as are necessary.

Estimates sub. The following estimates were received from mitted to Govt. The Agent and submitted to Government during ment during the Quarter.

- 1) Revised Estimate of line of Telegraph from Sonkatola to Iddapah Rs 72000
- 2) Estimate for Distribution Works 1st Range of 4th Section Rs 9040
- 3) Estimates for repairing the 4th and 5th Sections Main Canal Rs 1640
- 4) Estimate for certain modified arrangements in connection with the Jooloor Aqueduct 7th Section in lieu of an Estimate of Rs 59622

- 5) Estimates for Distribution works
2nd Range 7th Section } Rs 15000
- 6) Estimate for repairing the Ada
mapully bungalow } Rs 530
- 7) Estimate for Distribution works
2nd Range 9th Section } Rs 21600
- 8) Estimates for Distribution Works 3rd
4th Ranges 8th Section } Rs 29800
- 9) Estimate for erecting 32 Sluice
Keepers huts } Rs 3200
- 10) Estimate for repairing the Lockin
bula bungalow } Rs 327

The whole of these estimates as well as Estimates same.
the estimate of Rs 1470 for a masonry protection to
the toe of the return bund near Ullore 3rd Section
which was previously submitted, received the sanc.
tion of Government during the Quarter.

The cost of Executive permanent lo. Lost of Establish.
establishments amounts for this Quarter to 11.2 per cents.
cent on the expenditure for construction; that
of the temporary establishments to 3 per cent and
that of the general management to 9.2 per cent.

total cost of The total cost of the permanent es.
establishments. establishment was therefore 20.4 and of
temporary establishment 3 per cent on the
expenditure.

I have the honor to be
Sir
Yours most obedt Servt.
Capt. Little Capt. R.E.
to be the Capt for Irrigation

mpd
H.N.

15
 O. W. B. to H. G. B. 1/15/72
 29. July 1872

O. W. B. to H. G. B. 1/15/72
 29. July 1872

P. M. 1872 Week

No. 108.

No. 654.

From the Leg. Ch. Dept. for the
 to the Secy to Govt.
 P. M. Dept.

Dated 6th

Recd. 8th Feb. 72

No. 495-22. Feb. 72

Submits Report on

the progress made in

the works of the R.

J. H. C. during the

Quarter ended 30th

June 1871. With an Enc.

No. 495
 Forwarded to the Home Government
 the report that the report

Recd. 23/2/72

Recd. 23/2/72
 Report & Enclosure in. 8th Feb. 72
 Recd. 23/2/72

12654

Govt. of 1872 Madras.
PUBLIC WORKS.

(2)

To *Hon. Chief Eng^r for
Navigation*

Dated

Recd.

Encl.

22 Feb 1872

No. 3674368

Madras Public Works.

*Received in the
Office of the Engineer
for Navigation
by the order of
3rd June 1872.*