

(1) Number of pages 10(2) Date of repair 11-1-68(3) Initials of the Referencer **MADRAS RECORD OFFICE.****Government of Madras.***Is**P.W.***DEPARTMENT.**

G.O. No.	<i>1138.</i>	Press
<i>212-3</i>		~~Mis.~~
Dated	<i>16-4-</i>	<i>1868.</i>

Not to be folded or roughly handled

1d.

*Proceedings of the Madras Government, Public Works Department,
16th April 1868.*

No. 212. Read the following letter from the Consulting Engineer for Irrigation and Canal Company, to the Secretary to Government, Public Works Department, dated Madras, 18th March 1868, No. 147:—

1. 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 ending 31st December 1867.

2. The works generally have made satisfactory progress during the quarter, and much has been done in the second section, which was getting on but slowly in the preceding quarter.

3. The Agent's attention was called, in November last, to certain items of expenditure which needed adjustment or explanation, and in the present report something has been done towards carrying out the adjustments. I hope that, in the report for the next quarter, all that is necessary will be done.

4. The expenditure on the Soonkasala anicut and head works was Rs. 813-14-5, consisting of Rupees 799-14-5 for coping, and Rupees 14 for special superintendence and sundries.

5. Rupees 1,962-2-0 were expended on the first section, 1 to 17½ mile, of the Main Canal, the work done being—

	RS.	A.	P.
Earthwork and embankment, cubic yards 1,215...	35	0	0
Rocky excavation, do. 2,339...	327	6	0
Revetment... ..	100	0	0
Bridge No. 1	160	11	1
Bridge, second class, for Dudiya...	51	10	8
Iron ferry boats	16	11	3
Removing silt, cubic yards 1,675	149	7	0
Special superintendence and sundries	581	1	1
Stores	424	1	1
Proportion of store charges	116	1	10

6. The second section, from the 18th to the 32nd mile, shows an outlay of Rupees 45,577-15-0, the items being—

	RS.	A.	P.
Earthwork and embankment, cubic yards 61,629...	12,827	0	0
Rocky excavation and cutting, do. 13,178...	17,133	13	7
Revetment, do. 1,332...	891	4	0
Masonry walls (double and single), do. 4,751...	11,159	0	0
Special superintendence and sundries	1,007	11	8
Stores... ..	2,014	7	7
Proportion of store charges	544	10	2

7. On the third section of the Main Canal, from the 33rd to 43rd mile, there was an expenditure of Rupees 24,962-0-1, the details being—

	RS.	A.	P.
Earthwork and embankment, cubic yards 3,555...	704	8	0
Rocky excavation and cutting, do. 37,102...	18,974	6	0
Revetment	18	13	0
Calingulah No. 18	1	0	0
Ullur Aqueduct	24	8	0
Special superintendence and sundries	583	5	0
Stores	3,655	13	7
Proportion of store charges	999	10	6

Rupees 14—"—" for special superintendence and

Proceedings of the Madras Government, Public Works Department,
16th April 1868.

8. On the fourth section, or miles 44 to 60, of the canal, Rupees 32,251-7-5 were expended on—

	RS.	A.	P.
Excavation and embankment, cubic yards 38,258...	9,925	9	8
Revetment and pitching, do. 10,277...	11,734	10	4
Bridge No. 1	1,835	13	4
Do. „ 2	2,773	12	0
Do. „ 3	1,650	3	4
Calingulah and Apron No. 1	156	10	0
Do. do. „ 2	848	12	0
Do. do. „ 3	281	14	0
Do. do. „ 4	328	12	0
Four Culverts	1,297	12	11
Catch-water Drain, cubic yards 1,223	243	4	8
Contingencies	990	5	11
Stores	144	7	11
Proportion of store charges	39	7	4

9. On the fifth section of the Main Canal, from 61st to 72nd mile, there was an expenditure of Rupees 20,342-2-5, the items being—

	RS.	A.	P.
Excavation and embankment, cubic yards 1,22,900	19,043	7	4
Aqueduct at Terogapully	13	12	0
Culvert No. 3	462	11	11
Contingencies	628	4	9
Stores	152	7	2
Proportion of store charges	41	7	3

10. The outlay on the seventh section, miles 92nd to 114th, amounted to Rupees 3,283-14-5, being for—

	RS.	A.	P.
Embankment and cutting, cubic yards 15,198	2,039	12	11
Anicut and head-works	410	10	0
Bridge	21	10	0
Two Culverts	121	10	0
Contingencies	690	3	6

11. On the ninth section, or miles 144th to 178th, of the canal, Rs. 39,667-4-2 were expended on—

	RS.	A.	P.
Earthwork, cubic yards 2,27,457	31,741	6	3
Rock excavation, do. 9,155	3,004	12	7
Head Sluice	86	5	10
Two Aqueducts	1,273	6	6
Lock	2,503	14	8
Lock Weir or Calingulah	82	2	0
Special superintendence and sundries	375	4	4

12. Rupees 574-6-0 were expended on the bungalow at Adamapully.

13. The expenditure on works of distribution was Rupees 220-14-0, of which Rupees 3-5-4 were expended in the first section, Rupees 2-10-0 in the second section, and Rupees 214-14-8 in the fourth section.

14. The expenditure on buildings was Rupees 3,886-1-5, consisting of the following items:—

	RS.	A.	P.
Office, Store-house, and Workshop at Soonkasala ...	10	10	8
Office and Store buildings at Jupad	339	6	9
Engineer's bungalow at Dhoor	3,491	0	8
Office, Store, and Workshop at Kurnool	44	15	4

15. The following abstract shows the expenditure on all works from the commencement to the close of the quarter, compared with the sanctioned estimates.

Proceedings of the Madras Government, Public Works Department,
16th April 1868.

Works.	Amount of Estimate.	Expenditure up to 30th Sept. 1867.	Cost during the quarter ended 31st Dec. 1867.	Total expenditure.	Add amount transferred to this from other works.	Deduct refunds to this from other works.	Total net expenditure.	Amount	
								Available.	In excess of estimate.
<i>Main Supply.</i>	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Anicut and head-works at Kurnool	3,03,080	60,327	814	60,327	60,327	...	60,327	2,42,753	...
Do. do. at Soonkasala	4,27,052	4,09,802	...	4,10,616	4,10,616	...	4,10,616	16,436	...
Do. do. at Somaiswaram	1,71,727	69,281	...	69,281	69,281	5	69,276	1,02,451	21,619
Aqueduct across the river Hindry	2,46,029	2,67,648	...	2,67,648	2,67,648	...	2,67,648	...	...
Canal for one mile from the head sluice of the Kurnool	65,000	49,285	...	49,285	49,285	...	49,285	15,715	...
Anicut	8,81,927	9,04,428	1,962	9,06,390	9,06,390	45	9,06,345	24,418	...
South Main Canal, 1st Section, 174 miles	18,00,150	15,34,729	45,578	15,80,307	15,80,291	16	15,80,291	2,19,859	...
Do. 2nd do. 18th to 32nd mile	5,95,290	6,91,310	24,962	7,16,272	7,16,051	221	7,16,051	1,20,761	...
Do. 3rd do. 33rd to 43rd do.	10,55,521	8,00,201	32,251	8,32,452	8,32,451	1	8,32,451	2,23,070	...
Do. 4th do. 44th to 60th do.	7,05,345	6,00,139	20,342	6,20,481	6,20,163	18	6,20,163	84,882	...
Do. 5th do. 61st to 72nd do.	4,43,677	3,34,691	...	3,31,691	3,34,683	...	3,34,683	1,08,994	...
Do. 6th do. 73rd to 91st do.	4,74,453	2,18,816	3,284	2,22,100	2,22,099	1	2,22,099	2,52,354	...
Do. 7th do. 92nd to 114th do.	7,36,830	2,65,781	...	2,65,781	2,65,781	...	2,65,781	4,71,049	...
Do. 8th do. 115th to 143rd do.	9,45,837	9,063	39,667	48,732	48,732	...	48,732	8,97,105	...
Do. 9th do. 144th to 178th do.	1,880	739	575	1,314	1,314	...	1,314	566	...
Do. 10th do. bungalow at Adamapully.	88,53,798	62,16,242	1,69,435	63,85,677	63,85,362	315	63,85,362	26,35,234	1,66,798
<i>Distribution.</i>									
Branch channel and sluices of 1st Section	6,681	4,053	3	4,056	4,056	...	4,056	2,625	...
Distribution works of the 2nd Section	6,000	4,402	3	4,405	4,405	...	4,405	1,595	...
Do. do. 3rd do.	9,320	4,261	...	4,261	4,261	...	4,261	5,059	...
Do. do. 4th do.	8,286	4,912	215	5,127	5,127	...	5,127	3,159	...
Constructing a bund across the canal in the 45th mile, 4th Section	76	73	...	73	73	...	73	4,000	3
Distribution works of the 5th Section	4,000	2,812	...	2,812	2,812	...	2,812	7,158	...
Do. do. 6th do.	10,000	...	...	...	...	...	...	15,125	925
Do. do. 9th do.	15,125	...	...	...	...	...	...	...	...
Do. do. at Soonkasala	...	925	...	925	925	...	925	...	...
Do. do. at Soonkasala	...	1,382	...	1,382	1,382	...	1,382	...	...
Kurnool town water-supply	1,699	...	...	...	...	...	...	...	...
	61,187	22,850	221	23,071	23,071	...	23,071	39,041	925

Rupees 14-0-0 for special superintendence and

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Works.	Amount of Estimate.	Expenditure up to 30th Sept. 1867.	Cost during the quarter ended 31st Dec. 1867.	Total expenditure.	Add amount transferred to this from other works.	Deduct refund to this from other works.	Total net expenditure.	Amount	
								Available.	In excess of estimate.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
<i>Buildings.</i>									
Central Hospital with out-houses and compound wall at Kurnool ...	5,050 68	4,367 60	...	4,367 60	...	...	4,367 60	683 8	...
Repairs to do. ...	1,245	...	...	...	...	...	...	1,245	32
Overseer's hut at do. ...	5,947	5,968	11	5,979	...	...	5,979	...	...
Office, Store-house, and Workshop at Soonkasala ...	4,359	4,359	...	4,359	...	...	4,359	...	57
Powder Magazine, Store, and Station roads at Bownassy ...	7,298 168	7,523	...	7,523	...	...	7,523	...	...
Office and Store-room and Artificer's shed at do. ...	578	318	...	318	...	...	318	200	...
Repairing the above buildings at do. ...	427	19	...	19	...	...	19	408	...
Improvement of the road approaching to the above buildings, and repairing culverts at do. ...	1,970	5,114	...	5,114	...	...	5,114	...	3,144
Converting the unfinished building intended for a Gun Powder Manufactory into a Hospital at do. ...	4,123	4,075	339	4,414	1	...	4,415	...	292
Gun Powder Manufactory at Valapanore in the Bownassy Division ...	3,977	3,833	...	3,833	...	...	3,833	144	...
Office and Store building at Valapanore in the Bownassy Division ...	5,283	5,102	...	5,102	...	...	5,102	181	...
Do. do. at Jupad in the Nagatore Division. Do. do. at Pugydial do. ...	642	67	...	67	...	...	67	575	...
Do. do. at Chintagonta in Koondaur do. ...	1,236	561	...	561	...	...	561	675	...
Office and temporary Store shed at Ayalore in do. do. Quarters for Sub-Assistant Engineers and Assistant Surveyors do. ...	327	308	...	308	...	...	308	19	...
Repairs to Ancient Office at Zorapore ...	30,612	13,789	45	13,834	...	...	13,834	16,778	...
Office, Store, and Workshop at Kurnool ...	15,328	15,168	...	15,168	...	...	15,168	160	...
Iron and Brass Foundry at do. ...	4,750	3,491	3,491	3,491	...	...	3,491	1,259	...
Room for receiving and despatching stores at do. ...	...	...	...	...	...	...	...	22,395	3,525
Engineer's bungalow at Dhoor ...	93,338	70,631	3,886	74,517	1	...	74,518	44,116	...
Line of telegraph from Soonkasala to Cuddapah ...	44,116	...	...	...	...	...	...	27,40,786	1,71,248
Total...	90,52,889	63,09,723	1,73,542	64,83,265	1	313	64,82,951	...	...

Proceedings of the Madras Government, Public Works Department.
16th April 1868.

16. This statement shows that the expenditure of the quarter was Rs. 1,73,542 and the net total outlay up to 31st December 1867, Rupees 64,82,951.

17. The subjoined statement shows the expenditure in excess of sanction at the end of the quarter to have been Rupees 1,71,248—

Works.	Excess expenditure up to 30th September 1867.	Excess expenditure during the quarter 31st Dec. 1867.	Total.	Add transferred to this from other works.	Deduct refunds.	Excess net expenditure 31st Dec. 1867.
	RS.	RS.	RS.	RS.	RS.	RS.
<i>Main supply.</i>						
Aqueduct across the river Hindry ...	21,619	...	21,619	...	...	21,619
South Main Canal, 1st section ...	22,501	1,962	24,463	...	45	24,418
Do. do. 3rd do. ...	96,020	24,962	1,20,982	...	221	1,20,761
	1,40,149	26,924	1,67,064	...	266	1,66,798
<i>Distribution.</i>						
Distribution at Soonkasala ...	925	...	925	...	...	925
<i>Buildings.</i>						
Office, Store-house, and Workshop at Soonkasala ...	21	11	32	...	...	32
Do. Store, and Artificer's shed at Bownassy ... Rupees 225	57	...	57	...	...	57
D. D. repairing the above buildings Rupees ... 168	...	...	...	...	...	...
Office and Store building at Valapanore ...	3,144	...	3,144	...	...	3,144
Do. do. at Jupad ...	...	292	292	...	...	292
	3,222	303	3,525	...	...	3,525
	1,44,287	27,227	1,71,514	...	266	1,71,248

The excess on the third section has been covered by the additional sanction given in the Order of Government as G. O. No. 593, dated 21st February 1868. per margin, and supplemental estimates for the first section were received in this office on the 12th instant, and will be submitted immediately.

18. The following estimate was received from the Agent, and submitted to Government during the quarter.

Revised estimate of the tenth section, Main Canal, Rupees 1,92,450, and received the sanction of Government on the 11th January 1868, together with another which had been previously submitted for earth and masonry works for the second section, Rupees 4,10,476.

19. The cost of the executive permanent establishment amounts for this quarter to 22.59 per cent. on the expenditure for construction, that of the temporary establishment to 1.64 per cent., that of establishments engaged in investigations in Bellary and for Reservoirs to 4.05 per cent., and that of general management to 12.81 per cent. The total cost of the permanent establishment was, therefore 39.45, and of temporary establishments 1.64 per cent. on the expenditure.

Proceedings of the Madras Government, Public Works Department,
16th April 1868.

No. 213. ORDER THEREON, 16th April 1868, No. 1,138.

IRRIGATION, No. 8.

Ordered to be communicated to
the Home Government.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for the Madras Irrigation and Canal Company.
„ Manager for do. do.

Exd. S. T. Augustin.

Consulting Engineer's Office,
Irrigation and Canal Co.
Madras 18th March 1868.

No. 147

From Captain John Mullins R.E.,
Consulting Engineer I. and C.C.
To Colonel C. S. O. R.E.,
Secretary to Government P.W.D.

Sir
I have the honor to submit the follow-
ing report on the progress made in the works
of the Madras Irrigation and Canal Company,
during the quarter ending 31st December 1867.

2 The works generally have made
satisfactory progress during the quarter, and
much has been done in the 2nd Section, which
was getting on but slowly in the preceding
quarter.

3 The Agents' attention was called, in
November last, to certain items of expenditure
which needed adjustment or explanation, and
in the present Report something has been done
towards carrying out the adjustments. I hope
that in the Report for the next quarter all
that is necessary will be done.

4 The expenditure on the Soonkasala
Ancient and head works was Rupees 813-14-5,
consisting of Rupees 799-14-5 for coping and
Rupees 14-"" for special superintendence and
Sundries.

sundries.

5. Repees 1,962-2-0 were expended on the 1st Section, 1 to 17 1/4 miles, of the Main Canal, the work done being

Earthwork and Embankment. Cysd. 1215-35-0 R a P
Rocky excavation ————— " 2339-327-6-0
Retement ————— " 100-0-0

Bridge No 1 ————— 160-11-1

Bridge 2 Clasp for Dudigala ————— 51-10-8

Iron Ferry Boats ————— 16-11-3

Removing soil ————— 1175-114-1

Special Superintendence and Sundries ————— 581-1-1

Stores ————— 424-1-1

Proportion of Store Charges ————— 116-1-10

6. The 2nd Section, from the 18th to the 32 miles, shows an outlay of Repees 4,5577-15-0 the items being

Earthwork and Embankment. Cysd. 61639-12327-0 R a P

Rocky excavation and Cutting ————— " 13178-17133-13-7

Retement ————— " 1332-291-4-0

Masonry walls (double and single) ————— 4751-1159-0-0

Special superintendence and sundries ————— 1007-11-8

Stores ————— 2014-7-7

Proportion of Store Charges ————— 644-10-2

7. On the 3rd Section of the Main Canal from the 33 to 43 Miles there was an expenditure of Repees 24,962-1-0 the details being

Earthwork and Embankment. Cysd. 3555-704-5 R a P

Rocky excavation and Cutting ————— " 37102-18774-6-0

Retement ————— " 18-13-0

Calingulah No 18 ————— 1-0-0

Ullur Aqueduct ————— 24-8-0

Special superintendence and sundries ————— 583-5-0

Stores ————— 2655-13-7

Proportion of Store Charges ————— 999-10-6

8. On the 4th Section, or miles 44 to 60, of the Canal, Repees 32,251-7-5 were expended on

Excavation and Embankment Cysd. 38258-9925-9-8 R a P

Retement and Pitching ————— " 10277-11734-10-4

Bridge No 1 ————— 1835-13-4

Bridge No 2 ————— 2773-12-0

Bridge No 3 ————— 1650-3-4

Calingulah and Apron No 1 ————— 156-10-0

do do " 2 ————— 848-12-0

do do " 3 ————— 181-14-0

do do " 4 ————— 328-12-0

Four Culverts ————— 1277-12-0

Catch water drain Cysd. 1223-243-4-0

Contingencies ————— 990-5-11

Stores ————— 146-7-11

Proportion of Store Charges ————— 39-7-4

9. On the 5th Section of the Main Canal, from 61 1/4 to 72 Miles, there was an expenditure of Repees 20,342-2-5 the items being

Excavation and Embankment Cysd. 122900-19043-7-4 R a P

Aqueduct at Terogapully ————— 13-12-0

Culvert No 3 ————— 462-11-11

Contingencies ————— 628-4-9

Stores ————— 152-7-2

Proportion of Store Charges ————— 41-7-3

10. The outlay, on the 7th Section miles 92 to 114 amounted to Repees 3283-14-5 being for

Embankment and Cutting Cysd. 15198-2039-12-11 R a P

Ancient and head works ————— 410-10-0

11 On the 9th Section, or Miles 14th to 17th, of the
Canal Repairs 39,667-4-2 were expended on
Earthwork _____ Cords 227,457-3,741-6-3
Rock excavation _____ " 9,155-3,604-12-7
Head Sluice _____ 86-5-10
Two Aqueducts _____ 1373-6-6
Lock _____ 2,503-14-8
Lock weir or Calingulah _____ 82-2-0

12 Rupees 574-6-0 were expended on the
Bungalows at Adamapully.

was Rupees 220-14-0, of which Rupees 3-5-4-0 were expended in the 1st Section, Rupees 2-10-0 in the 2^d Section, and Rupees 214-14-8 in the 4th Section.

3886-1-5, consisting of the following items.

Office, Store house and Workshop at }
Sookkasala } - 10-10-8

Office and Store buildings at Inpad 339-6-9

Engineers Bangalore at Dhoot 3491-0-8

Office, Store and Workshop at }
Rumool } - 44 - 15 - 4

The following abstract shows the expenditure on all works from the commencement to the close of the quarter, compared with the sanctioned Estimates. —

Harbo

[illegible]

Buildings

Infantry Hospital with out houses and Compound wall at Munnar	5000	1867	4367	4367	683
do do do	68	60	60	60	8
Repairs to do at do	1245				1245
Quartermen's hut					
Office Store house and Workshop at Sunkarala	5947	5968	5979	5979	32
Office Store house and Workshop at Bannafy	4359	4359	4359	4359	
Store Magazine, Store and Station roads at Bannafy	7198				57
Office and Store room and artificers' shed at do	168	7523	7523	7523	
Repairing the above buildings at do	578	318	318	318	260
Improvement of the road approaching to the above buildings & Mess Culvert at do	127	19	19	19	408
Converting the unfinished building intended for a Gun Powder Manufactory into a Hospital at do	1970	5114	5114	5114	3144
Office and Store building at Talapannore in the Bannafy Division	4123	4075	339	1414	192
do do at Juppah in the Negambo	3977	3833	3833	3833	144
do do at Cuddapah	5283	5102	5102	5102	187
do do at Chintapota in Hoondaw	612	67	67	67	575
Office and Temporary Store shed at Agalare in do do	1236	561	561	561	675
Quarters for 12 Assistant Engineers and Assistant Surveyors do	327	308	308	308	19
Repairs to Ancient Office at Agalare	30612	13789	145	13834	13834
Office, Store, and Workshop at Munnar	15328	15168	15168	15168	160
Draw and brog foundry at do	14750	3491	3491	3491	1259
Room for receiving and despatching stores at do	95388	70631	3886	74514	74518
Engineers Bungalow at Choor	44116				44116
Levi of Telegraph from Sunkarala to Cuddapah	9052189	6309723	173542	6483265	315
					6482951

16 This Statement shows that the expenditure of the quarter was Rupees 17,3542, and the total till the 31st December 1867 Rupees 64,82,951.

17 The subjoined Statement shows the expenditure in excess of sanction at the end of the quarter to have been Rupees 17,12,48.

Works

	Excess expenditure - Jan to 31 st Dec 1867	Excess expenditure - 1 st Jan to 31 st Dec 1867	Excess expenditure - 1 st Jan to 31 st Dec 1867	Excess expenditure - 1 st Jan to 31 st Dec 1867
Main Supply	21,619	21,619	21,619	21,619
Queduct across the river Hindy	22501	1962	24463	45
South Main Canal 1 st Section	96020	24562	120582	221
do do 3 rd do	140140	26924	167064	266
	925	925	925	925

Distribution Buildings

Office, Store house & Workshop at Sunkarala	21	11	32	57
Office, Store and artificers' shed at Bannafy	57	57	57	3144
D.D. Repairing the above buildings - 168	3144	292	292	292
Office and Store Building at Talapannore	3222	303	3525	3525
do do at Juppah	144287	27227	171514	266
	171514	171514	171514	171514

The excess on the 3rd Section has been covered by the additional sanction given in the order of Government as per margin, and supplemental Estimates for the 1st Section were received in this Office on the 12th Instant, and will be submitted immediately.

G.O. No. 593 of 21st February 1868.

18. The following Estimate was received from the Agent and submitted to Government during the quarter.

Revised estimate of the 10th Section Main Canal Rs 192,450, and received the sanction of Government on the 11th January 1868, together with another which had been previously submitted for Earth and Masonry works for the 2^d Section Rs 4,10,476-0-0.

19. The cost of the Executive permanent establishment amounts for this quarter to 22.59 per cent on the expenditure for construction, that of the Temporary establishment to 1.64 per cent, that of establishments engaged in investigations in Bellary and for Reservoirs to 4.05 per cent, and that of General Management to 12.81 per cent. The total cost of the permanent establishment was therefore 39.45, and of Temporary Establishments 1.64 per cent on the expenditure.

I have the honor to be,

Sir

Your most obedient servant

John Hindess Captain R.E.

Consulting Engineer I.C.C.

No 1060
 From The Com. Eng. S. V. C. C.
 To The Secretary to Govt.

Dated 18 }
 Recd 24 } March 1868

Submit Report on the
 Progress made in the
 works of the M. S. V. C. C.
 during the quarter ending
 31st December 1867 —
 No 1138-16th April 1868
 With an Order

Recd
 No 1138
 Related to the communication
 dated to the Home Govt.

To Com. Eng. S. V. C. C.
 16th April 1868
 No 212 & 213
 25th March 1868. P. 21st April