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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	2616	Press <u>Mis.</u>
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*Proceedings of the Madras Government, Public Works Department,
9th September 1864.*

No. 179. Read the following letter from Captain J. MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government Department Public Works, dated Madras, 2nd August 1864, No. 81:—

SIR,

1. I have the honor to forward the following report on the progress made on the works of the Irrigation and Canal Company, during the quarter ending 31st July 1863. The progress report for the month of July was received in this office on the 3rd August 1864.

Letter No. 40 of 2nd July 1864.
Do. „ 65 of 5th August „

2. Information to so much later a date being already before Government, it will not be necessary for me to do more than briefly summarize the items of expenditure in the several Divisions and on the large works.

3. The expenditure on the Soonkasala Anicut and head works was Rupees 23,700-3-0 for 2,347 cubic yards of masonry, including the adjustment of stores to the extent of Rs. 6,966-9-7; 1,971 cubic yards of earthwork were also completed.

4. Rupees 11,803-9-7 were spent on the Hindry Aqueduct, the items being—

	RS.	A.	P.
Excavation, baling and filling in...	52	8	7
Rubble stone in chunam, cubic yards 1,089½	4,100	0	7
Cut-stone „ 2	36	8	11
Stone in chunam, arch work „ 126½	483	9	4
Centrings	3,945	12	11
Plastering and cornice	597	8	11
Road-way and rubble revetment 207½	1,394	10	2
Special superintendence and sundries	1,192	14	2

5. There was no expenditure during the quarter on the 1st mile of the Main Canal below the Soonkasala head sluice.

6. On the 1st section of the Main Canal from the 1st to 17½ miles the outlay was Rupees 31,156-1-5, the work done being—

	RS.	A.	P.
Excavation, cubic yards 32,950	8,480	14	11
Embankment „ 1,04,376	15,625	15	6
Calingulabs „ 87½	1,599	12	9
Culverts „ 24½	747	11	0
Special superintendence and sundries	4,701	11	3

Stores to the amount of Rupees 3,044-4-5 are included in the item for excavation.

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7. The second and third sections of the Canal from the 18th to 43rd mile show an outlay of Rupees 96,434-11-5, and the items are—

	RS.	A.	P.
Excavation, cubic yards 48,230	11,546	14	11
Embankment earthwork, cubic yards 3,58,636½	52,247	11	10
Masonry bund	324½	658	11 0
Do. wall	937	2,047	12 8
Calingulabs	5,186½	13,461	12 0
Culverts	1,851½	4,555	9 4
Bridges	280	1,293	12 0
Tunnels		75	0 0
Alteration of road		589	2 6
Special superintendence and sundries	9,958	5	2

Stores of the value of Rupees 2,362-2-1 are adjusted under excavation.

8. The 4th and 5th sections of the Canal from the 44th to 72nd miles show an expenditure of Rupees 81,002-7-3 and the details are subjoined:—

	RS.	A.	P.
Excavation and embankment, cubic yards 5,28,740	63,105	3	5
Scouring sluice	62	11	2
Bridges	284	2,925	4 9
Calingulabs	887	5,448	15 11
Culverts	158	3,903	2 8
Special superintendence and sundries	5,557	1	4

Stores to the extent of Rupees 4,145-1-0 are debited to excavation.

There would seem to be some mistake as regards the entries opposite culverts in this and former reports, for while the total cubic yards of calingulah masonry are 3,136 and the cost Rupees 12,470 or 4 Rupees a cubic yard nearly, the masonry in the culverts is cubic yards 28 and the value Rupees 7,048-8-10 or more than 24½ Rupees a cubic yard, the former is above the rates now prevailing, but the latter is so greatly in excess that I think there must be an error in the quantities shown.

9. On the 6th section or miles 73rd to 91st of the Canal Rupees 26,861-1-10 were spent on—

	RS.	A.	P.
Excavation and embankment, cubic yards 46,850	14,536	1	1
Locks...	597	4	8
Sluices	1,798	6	1
Culverts	2,113	12	5
Special superintendence and sundries	7,815	9	7

10. The outlay on the 7th section, miles 92nd to 114th, amounts to Rupees 7,425-13-1 being for—

	RS.	A.	P.
Excavation and embankment, cubic yards 53,621½	3,653	13	0
Anicut and head works	1,629	8	4
Regulating lock	141	10	2
Culverts	146	7	5
Calingulabs	20	0	0
Bridges	367	4	0
Special superintendence and sundries	1,467	3	0

The last item is very high indeed, being nearly 25 per cent. on the value of the work done.

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11. The Anicut and head works at Somaiswaram show an expenditure of Rupees 4,374-8-1, consisting of Rupees 249-12-0 on the body of the Anicut, Rupees 2,323-2-10 for stores and Rupees 1,801-9-3 for special superintendence and sundries. The next report it may be hoped will show that this large expenditure on superintendence has been of use.

12. The expenditure on works of distribution amounts to Rupees 592-4-9 only.

13. The only expenditure on buildings was on the Central Hospital at Kurnool and Rupees 62-6-5 only are shown against this, of which but Rupees 14-6-0 were spent in cash.

14. The following abstract 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 the Estimate.	Expenditure up to 30th April 1863.
MAIN SUPPLY.	RS.	RS. A. P.
Anicut and head works at Kurnool	3,03,080	64,880 2 7
Do. do. at Soonkasala.	1,25,000	2,28,365 7 8
Aqueduct across the river Hindry at Kurnool.	1,45,000	1,51,328 15 5
Canal for one mile from the head sluice of the Kurnool Anicut.	65,000	49,210 13 7
South Main Canal, 1st Section, 17½ miles.	4,60,000	5,36,978 15 6
Do. do. 2nd and 3rd do. from 17½ to 42nd mile.	7,22,500	4,02,110 11 2
Do. do. 4th and 5th do. from 43rd to 72nd mile.	5,43,835	1,76,167 11 10
Do. do. 6th do. from 73rd to 92nd mile	3,82,755	8,161 5 7
Do. do. 7th do.	2,38,460	267 15 8
Anicut and head works at Somaiswaram....	1,33,000	.....
Total Main Supply...	31,18,630	16,17,472 3 0
DISTRIBUTION.		
Branch Channels and Sluices between 1st and 17½ miles of the 1st Section, South Main Canal.	5,520	2,349 8 1
BUILDINGS.		
Central Hospital with out-houses and compound wall at Kurnool.	2,540	3,724 12 3
Office, Store House and Workshop at Soonkasala	4,000	6,998 8 8
Office, Store House and Artificers' Shed at Bowanassy	7,298	6,146 15 2
Roads and bridges at Bowanassy ... ..	.....	3,867 8 1
Central Office, Engine Shed and Overseer's Hut ... ..	.....	1,244 13 3
Office and Temporary Store Sheds, &c., at Ayalore ... ..	.....	.....
Permanent Office and Store at Jupad in Nagatore Division ...		
Total Buildings...	13,838	21,982 9 5
Grand Total...	31,37,988	16,41,804 4 6

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Cost in the quarter ending 31st July 1863.	Total expenditure.	Deduct refunds.	Total net expenditure.	AMOUNT.	
RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	Available.	In excess of Estimate.
89 10 2	64,969 12 9	258 11 9	64,711 1 0	2,38,368 15 0	.....
23,700 3 0	2,57,065 10 8	1,129 4 0	2,55,936 6 8	.....	1,30,936 6 8
11,803 9 7	1,63,132 9 0	94 7 6	1,63,038 1 6	.....	18,038 1 6
.....	49,210 13 7	.....	49,210 13 7	15,789 2 5	.....
31,156 1 5	5,68,135 0 11	451 6 4	5,67,683 10 7	.....	1,07,683 10 7
96,434 11 5	4,98,545 6 7	225 3 7	4,98,320 3 0	2,24,179 13 0	.....
81,002 7 3	2,57,170 3 1	134 8 8	2,57,035 10 5	2,86,799 5 7	.....
26,861 1 10	35,022 7 5	.....	35,022 7 5	3,47,732 8 7	.....
7,425 13 11	7,693 13 7	2 5 2	7,691 8 5	2,30,768 7 7	.....
4,374 8 1	4,374 8 1	2 10 0	4,371 14 1	1,28,628 1 11	.....
2,87,848 2 8	19,05,320 5 8	2,298 9 0	19,03,021 12 8	14,72,266 6 1	2,56,658 2 9
592 4 9	2,941 12 10	.....	2,941 12 10	2,578 3 2	.....
62 6 5	3,787 2 8	.....	3,787 2 8	.....	1,247 2 8
572 14 1	7,571 6 9	8 12 0	7,562 10 9	.....	3,562 10 9
714 8 1	6,861 7 3	.....	6,861 7 3	436 8 9	.....
.....	3,867 8 1	.....	3,867 8 1	.....	3,867 8 1
.....	1,244 13 3	.....	1,244 13 3	.....	1,244 13 3
37 6 0	37 6 0	.....	37 6 0	.....	37 6 0
107 5 9	107 5 9	.....	107 5 9	.....	107 5 9
1,494 8 4	23,477 1 9	8 12 0	23,468 5 9	436 8 9	10,066 14 6
2,89,934 15 9	19,31,739 4 3	2,307 5 0	19,29,431 15 3	14,75,281 2 0	2,66,725 1 3

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15. This Statement shows that the expenditure of the quarter was Rupees 2,89,934-15-9, and the total outlay Rupees 19,31,739-4-3, the net amount after deducting refunds being 19,29,431-15-3.

16. The subjoined Statement shows the expenditure in excess of sanction to be Rupees 2,66,725-1-3, this is Rupees 70,756-0-5 more than that noticed by the late Consulting Engineer in submitting the Progress Report for the previous quarter.

No. 163, 5th March 1864.
Proceedings Madras Government, 31st March 1864, No. 881.

Works.	Excess expenditure up to 30th April 1863.	Excess expenditure during the quarter ending 31st July 1863.	Total.	Deduct refunds.	Net excess expenditure up to 31st July 1863.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
MAIN SUPPLY.					
Anicut and head works at Soonkasala	1,03,365 7 8	28,700 3 0	1,32,065 10 8	1,129 4 0	1,30,936 6 8
Aqueduct across the river Hindry at Kurnool	6,328 15 5	11,803 9 7	18,132 9 0	94 7 6	18,038 1 6
South Main Canal, 1st portion of the 1st Section	76,978 15 6	31,156 1 5	1,08,135 0 11	451 6 4	1,07,683 10 7
BUILDING.					
Central Hospital at Kurnool	1,184 12 3	62 6 5	1,247 2 8	.....	1,247 2 8
Office and Store at Soonkasala	2,998 8 8	572 14 1	3,571 6 9	8 12 0	3,562 10 9
Roads, Bridges, &c., at Bowanassy	3,867 8 1	.....	3,867 8 1	.....	3,867 8 1
Central Office without Estimate	1,244 13 3	.....	1,244 13 3	.....	1,244 13 3
Office and Temporary Store Sheds at Ayalore	.....	37 6 0	37 6 0	.....	37 6 0
Office and Store at Jupad in the Nagatore Division		107 5 9	107 5 9		107 5 9
Total.....	1,95,969 0 10	72,439 14 3	2,68,408 15 1	1,683 13 10	2,66,725 1 3

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17. The excess expenditure on the Soonkasala Anicut has since been met by the advance of 1½ lacs given by Government on the 29th April 1864, No. 1,236. For the Hindry Aqueduct a supplemental sanction, Rupees 73,752-8-0, was given on the 31st March last, No. 882. Similarly a supplemental sanction for the 1st section of the Canal to the extent of Rupees 3,96,777 was granted on the 15th April 1864, No. 1,074. For the first four items under buildings no supplemental Estimates have even yet been received. Against the excess on the Iyalur station buildings the supplemental sanction, Rupees 612, of the 14th September 1863, No. 2,634, may be placed, and the Jupad station buildings, which were commenced in anticipation of sanction, have since been sanctioned in the Order of Government No. 214 of the 20th January 1864.

18. On comparing the dates of the above sanctions with the time of the expenditure it will be seen how very generally Rule LXI of the "General scheme of accounts" is disregarded. Application for supplemental sanction is delayed, very often without any sufficient reason, until the works are nearly finished, and then the only control which the Government can exercise over the works is to decline to pass the expenditure. In the case of the Hospital at Kurnool and the Office and Store at Soonkasala very large excessive expenditure has been incurred, and no sanction has been asked for, and the accounts have therefore been left unadjusted. Moreover, expenditure to the extent of Rupees 3,867-8-1 on roads, &c., at Bowanassy, and Rupees 1,244-13-3 on central office, engine shed, and Overseer's hut were incurred without any sanction at all. It is in all respects inadvisable that these practices should be continued. Arrangements are made hastily and without due consideration, and in one of the above cases, at Bowanassy, the Company's buildings are located more than half a mile from the Canal, thus rendering them useless for all but temporary purposes, and necessitating a large outlay to make roads to get to them.

19. The following Estimates, were sanctioned* by Government during the quarter, they were submitted on the 23rd April:—

7th Section, South Main Canal, from 103rd to 114th miles	Rupees 96,340 0 0
8th do. do. do. from 114th to 146½ miles	„ 4,37,410 0 0
Repairs to the Bowanassy Station buildings..	168 0 0
Improving the road at Bowanassy and repairing two culverts on it	578 0 0
Converting an unfinished building of Gun Powder Manufactory at Bowanassy into an Hospital	427 0 0
Office and Store at Ayalore	642 0 0

20. The four small Estimates as per margin were received in this Office, but they were not submitted to Government until after the 31st July 1863.

21. The expenditure on works including special superintendence was, as above shown, Rupees 2,89,934-15-9, this superintendence amounting to Rupees 35,012-0-9 or 13½ per cent. The cost of the permanent Establishment debited to construction was for the same period Rupees 43,446-4-5 or 17 per cent., but deducting the pay* of those Establishments which were engaged exclusively in survey operations, this part of the superintendence cost 11½ per cent., so that the per-centage of special and permanent Establishments engaged on works was 25. The per-centage of the Controlling Establishment for this quarter was 6½. The cost of the special temporary Establishment is, it will be seen from this, more than it should be, and the Chief Engineer's attention to this important point will be called as soon as the later Returns which are now coming in to this office have been examined.

No. 180. ORDER THEREON, 9th September 1864, No. 2,616.

Ordered that the foregoing report be forwarded to the Secretary of State for India, with the request that the attention of the Board of Directors of the Irrigation and Canal Company be again drawn to the continued delay in the submission of the quarterly Progress Reports, and to

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the remarks of the Consulting Engineer in paragraph 18 relative to the persistent practice on the part of the Company's Officers of incurring expenditure unauthorizedly, especially in the case of the roads and buildings connected with the site selected for the Bowanassey Station.

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Deputy Secretary to Government.

To the Consulting Engineer, Irrigation and Canal Company.
" Agent for do. do.

Exd. S. T. Augustin.

2616 *2616* *5456*
Ordered that the foregoing report be forwarded to the Secretary of State for India with the request that the attention of the Board of Directors of the Irrigation and Canal Company be again drawn to the continued delay in the submission of the Quarterly progress reports and to the remarks of the Consulting Engineer in para 18 relative to the persistent practice on the part of the Company's Officers of incurring expenditure unauthorizedly especially

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 " 14 Sept 253 - 257
 " 20 January 433 - 434
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 " 29 302 - 303
 " 24 June 506 507

Copy made to E.
 2/13 Sept 521
 1864

especially in the case of the ponds and buildings
 connected with the site selected for the Bournville
 Station.

Chepman
 9th Sept 1864

To The Comd Engineer W.C. Campy

Agent Do

Dec 12 1864

F.W. C. L. De Nord
 No 3766
 The Comd Engineer
 The Secy to Comd. W.C. Campy
 1864

Dated 24th Aug 1864
 Recd 30th Aug 1864

For Cert. 4231 of
 1864

C. 4049/64

2616 - 9th Sept 1864

Submits a Report of
 the progress made on the works
 of the L.C.C. for the period
 31 July 1863.

With an Order

5th Sept 1864 - Rep 6th