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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,  
17th January 1874.*

No. 219. Read the following letter from Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Bezvada, 1st December 1873, No. 53A :—

I HAVE the honour to submit the following report on the expenditure incurred on the works of the Madras Irrigation and Canal Company during the quarter ended 31st March 1873.

*Expenditure during the Quarter.*—The total expenditure for the period under review amounted to Rupees 4,548 as compared with Rupees 10,101 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 13-2-1 on the 1st Section, Main Canal, to 17½ miles, the items being :—

|                                      | RS. | A. | P. |
|--------------------------------------|-----|----|----|
| Alteration of Calingulah No. 3       | 1   | 8  | 0  |
| Plant, Store and Store charges       | 2   | 12 | 1  |
| Special Superintendence and Sundries | 8   | 14 | 0  |

3rd Section.—Rupees 941-3-6 on the 3rd Section from the 33rd to the 43rd mile, the details being :—

|                                         | RS. | A. | P. |
|-----------------------------------------|-----|----|----|
| Alteration of Calingulah No. 18         | 514 | 1  | 8  |
| Do. do. „ 19                            | 7   | 6  | 9  |
| Do. do. „ 20                            | 411 | 5  | 9  |
| Contingencies for earthwork and masonry | 8   | 5  | 4  |

5th Section.—Rupees 65-1-4 on the 5th Section from the 61st to the 72nd mile, the items being :—

|                             | RS. | A. | P. |
|-----------------------------|-----|----|----|
| Repairs of Canal            | 56  | 12 | 0  |
| Contingencies for earthwork | 8   | 5  | 4  |

7th Section.—Rupees 1,515-3-6 on the 7th Section, miles 92 to 114, for :—

|                                              | RS. | A. | P. |
|----------------------------------------------|-----|----|----|
| Repairs of Canal                             | 33  | 0  | 0  |
| Contingencies for earthwork and revetment... | 75  | 12 | 0  |
| Alteration of Calingulah No. 6               | 500 | 0  | 0  |
| Do. do. „ 9                                  | 595 | 2  | 8  |
| Embankment and cutting                       | 311 | 4  | 10 |

8th Section.—Rupees 36 on the 8th Section, miles 115 to 143, on repairs of Canal.

9th Section.—Rupees 106-6-4 on the 9th Section, or miles 144 to 178, on repairs of Canal.

10th Section.—Rupees 111-4-0 on the 10th Section, miles 179 to 186 of the Canal, on :—

|                                 | RS. | A. | P. |
|---------------------------------|-----|----|----|
| Butchumpally Calingulah Channel | 111 | 4  | 0  |

3. *Distribution Works.*—The outlay on works of distribution was Rs. 1,731-6-8, viz., on the :—

|             | RS. | A. | P. |
|-------------|-----|----|----|
| 1st Section | 10  | 9  | 3  |
| 4th do.     | 154 | 1  | 10 |
| 7th do.     | 25  | 11 | 0  |
| 8th do.     | 987 | 8  | 7  |
| 9th do.     | 295 | 4  | 10 |
| 10th do.    | 258 | 3  | 2  |

4. *Telegraph Line.*—The outlay under this head was Rupees 29-2-8 on stores and proportion of store charges.

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

*Proceedings of the Madras Government, Public Works Department.  
17th January 1874.*

| Works.                                                         | Amount of Estimate. | Expenditure up to 31st December 1872. | Cost during the quarter ended 31st March 1873. | Total Expenditure. | Add amount transferred to this from other works. | Deduct refunds from this to other works. | Total Net Expenditure. | Amount.  |     |
|----------------------------------------------------------------|---------------------|---------------------------------------|------------------------------------------------|--------------------|--------------------------------------------------|------------------------------------------|------------------------|----------|-----|
|                                                                |                     |                                       |                                                |                    |                                                  |                                          |                        | Rs.      | Rs. |
| <b>Main Supply.</b>                                            |                     |                                       |                                                |                    |                                                  |                                          |                        |          |     |
| Anicut and Head-works at Kurnool                               | 3,03,080            | 60,327                                | ...                                            | 60,327             | ...                                              | ...                                      | 60,327                 | Rs.      | Rs. |
| Do. do. at Soonkasala                                          | 4,85,122            | 4,70,213                              | 3                                              | 4,70,216           | ...                                              | ...                                      | 4,70,216               | 2,42,753 | ... |
| Do. do. at Somaswaram                                          | 1,71,727            | 66,134                                | ...                                            | 66,134             | ...                                              | ...                                      | 66,134                 | 14,906   | ... |
| Do. do. at Adamapully                                          | 4,58,233            | 4,55,930                              | ...                                            | 4,55,930           | ...                                              | ...                                      | 4,55,930               | 1,05,593 | ... |
| Aqueduct across the river Hindry                               | 2,76,325            | 2,76,325                              | ...                                            | 2,76,325           | ...                                              | 7,361                                    | 4,28,563               | 9,664    | ... |
| Canal for 1 mile from the head-sluice of the Kurnool anicut.   | 65,000              | 49,285                                | ...                                            | 49,285             | ...                                              | ...                                      | 2,76,325               | 15,715   | ... |
| Main Canal, 1st Section, 17 1/2 mile                           | 11,07,628           | 10,99,847                             | 11                                             | 10,99,858          | ...                                              | 142                                      | 10,99,716              | 7,912    | ... |
| Do. 2nd do. 18th to 32nd mile                                  | 19,96,142           | 19,88,334                             | ...                                            | 19,88,334          | ...                                              | 142                                      | 19,88,192              | 8,250    | ... |
| Do. 3rd do. 33rd to 43rd "                                     | 9,85,811            | 9,16,116                              | 941                                            | 9,17,057           | ...                                              | 142                                      | 9,16,915               | 68,896   | ... |
| Do. 4th do. 44th to 60th "                                     | 10,76,313           | 9,86,345                              | ...                                            | 9,86,345           | ...                                              | 142                                      | 9,86,203               | 90,110   | ... |
| Do. 5th do. 61st to 72nd "                                     | 8,81,913            | 8,77,036                              | 65                                             | 8,77,101           | ...                                              | 142                                      | 8,76,959               | 4,954    | ... |
| Do. 6th do. 73rd to 91st "                                     | 9,46,394            | 8,64,941                              | ...                                            | 8,64,941           | ...                                              | ...                                      | 8,64,941               | 81,453   | ... |
| Do. 7th do. 92nd to 114th "                                    | 7,65,161            | 6,71,890                              | 1,515                                          | 6,73,405           | ...                                              | ...                                      | 6,73,405               | 91,756   | ... |
| Do. 8th do. 115th to 143rd "                                   | 8,25,521            | 8,24,945                              | 36                                             | 8,24,981           | ...                                              | ...                                      | 8,24,981               | 540      | ... |
| Do. 9th do. 144th to 178th "                                   | 9,50,580            | 7,90,962                              | 106                                            | 7,91,068           | ...                                              | ...                                      | 7,91,068               | 1,59,512 | ... |
| Do. 10th do. 179th to 186th "                                  | 2,56,594            | 1,93,808                              | 111                                            | 1,93,919           | ...                                              | ...                                      | 1,93,919               | 62,675   | ... |
| Total...                                                       | 115,31,844          | 105,72,433                            | 2,788                                          | 105,75,226         | ...                                              | 8,071                                    | 105,67,155             | 4,64,689 | ... |
| <b>Distribution.</b>                                           |                     |                                       |                                                |                    |                                                  |                                          |                        |          |     |
| Branch Channels and Sluices of 1st Section                     | 7,003               | 5,590                                 | 11                                             | 5,601              | ...                                              | ...                                      | 5,591                  | 1,412    | ... |
| Distribution works of 2nd Section                              | 6,000               | 5,223                                 | ...                                            | 5,223              | ...                                              | 10                                       | 5,223                  | 777      | ... |
| Do. do. of 3rd do.                                             | 11,176              | 10,286                                | ...                                            | 10,286             | ...                                              | ...                                      | 10,286                 | 890      | ... |
| Do. do. of 4th do.                                             | 46,777              | 33,720                                | 151                                            | 33,874             | ...                                              | ...                                      | 33,874                 | 12,903   | ... |
| Constructing a bund across the Canal in the 45th mile, 4th do. | 76                  | 73                                    | ...                                            | 73                 | ...                                              | ...                                      | 73                     | 3        | ... |
| Distribution works of 5th Section                              | 20,550              | 9,595                                 | ...                                            | 9,595              | ...                                              | ...                                      | 9,595                  | 10,955   | ... |
| Do. do. of 6th do.                                             | 71,400              | 43,217                                | ...                                            | 43,217             | ...                                              | ...                                      | 43,217                 | 28,183   | ... |
| Do. do. of 7th do.                                             | 42,059              | 20,437                                | 26                                             | 20,463             | ...                                              | ...                                      | 20,463                 | 21,593   | ... |
| Distribution works of 8th Section                              | 49,000              | 34,173                                | 947                                            | 35,160             | ...                                              | ...                                      | 35,160                 | 13,840   | ... |
| Do. do. of 9th do.                                             | 46,448              | 33,151                                | 295                                            | 33,446             | ...                                              | ...                                      | 33,446                 | 13,002   | ... |
| Do. do. of 10th do.                                            | 10,000              | 8,236                                 | 258                                            | 8,494              | ...                                              | ...                                      | 8,494                  | 1,506    | ... |
| Do. do. at Soonkasala                                          | 925                 | 925                                   | ...                                            | 925                | ...                                              | ...                                      | 8,494                  | 1,506    | ... |

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| Kurnool Town water-supply ... ..                                                                             | 1,699            | 1,417      | ...   | 1,417      | ... | 10     | 1,417      | 282       |
|--------------------------------------------------------------------------------------------------------------|------------------|------------|-------|------------|-----|--------|------------|-----------|
| Total...                                                                                                     | 3,13,113         | 2,06,043   | 1,731 | 2,07,774   | ... | 10     | 2,07,764   | 1,05,349  |
| Breach repairs of August 1870...                                                                             | 62,440           | 60,566     | ...   | 60,566     | ... | 6,482  | 54,084     | 8,356     |
| <i>Buildings.</i>                                                                                            |                  |            |       |            |     |        |            |           |
| Central Hospital with out-houses and compound wall at Kurnool ... ..                                         | 5,050            | 4,867      | ...   | 4,867      | ... | ...    | 4,867      | 183       |
| Repairs to do. do. at Kurnool...                                                                             | 68               | 60         | ...   | 60         | ... | ...    | 60         | 8         |
| Overseers' hut at Kurnool ... ..                                                                             | 1,245            | ...        | ...   | ...        | ... | ...    | ...        | 1,245     |
| Office, Store-house, and Workshop at Soontasala ... ..                                                       | 5,986            | 5,986      | ...   | 5,986      | ... | ...    | 5,986      | ...       |
| Powder Magazine, Store, and Station Roads at Bowanassy Division ... ..                                       | 4,359            | 4,359      | ...   | 4,359      | ... | ...    | 4,359      | ...       |
| Office, Store-room, and Artificers' shed at Bowanassy do. ...                                                | 7,298 }<br>618 } | 7,537      | ...   | 7,537      | ... | ...    | 7,537      | 409       |
| Repairing the above buildings at do. ... ..                                                                  | 578              | 318        | ...   | 318        | ... | ...    | 318        | 260       |
| Improvement of the road approaching to the above building and repairing culverts at Bowanassy ... ..         | 427              | 31         | ...   | 31         | ... | ...    | 31         | ...       |
| Converting the unfinished buildings intended for a Gunpowder Manufactory into a Hospital at Bowanassy ... .. | 1,990            | 1,990      | ...   | 1,990      | ... | ...    | 1,990      | 396       |
| Office and Store building at Valapanoor in do. ... ..                                                        | 564              | 599        | ...   | 599        | ... | ...    | 599        | ...       |
| Repairs to Valapanoor Bungalow ... ..                                                                        | 4,123            | 4,123      | ...   | 4,123      | ... | ...    | 4,123      | ...       |
| Office and Store at Jupaud in Nagatoor Division ... ..                                                       | 1,000            | 364        | ...   | 364        | ... | ...    | 364        | 636       |
| Repairs to Jupaud Bungalow in do. do. ... ..                                                                 | 3,977            | 3,833      | ...   | 3,833      | ... | ...    | 3,833      | 144       |
| Office and Store at Puggydial in do. do. ... ..                                                              | 5,283            | 5,278      | ...   | 5,278      | ... | ...    | 5,278      | 5         |
| Do. do. at Chintagoonta in Koondaur do. ... ..                                                               | 642              | 67         | ...   | 67         | ... | ...    | 67         | 575       |
| Do. and temporary Store-shed at Ayalore in do. ... ..                                                        | 327              | 308        | ...   | 308        | ... | ...    | 308        | 19        |
| Repairs to Anicut Office at Zorapore ... ..                                                                  | 30,612           | 15,158     | ...   | 15,158     | ... | ...    | 15,158     | 15,454    |
| Office, Store, and Workshop at Kurnool ... ..                                                                | 15,328           | 15,168     | ...   | 15,168     | ... | ...    | 15,168     | 160       |
| Iron and Brass Foundry at do. ... ..                                                                         | ...              | ...        | ...   | ...        | ... | ...    | ...        | ...       |
| Room for receiving and despatching stores at Kurnool ...                                                     | 1,236            | 561        | ...   | 561        | ... | ...    | 561        | 675       |
| Quarters for Sub-Assistant Engineers and Assistant Surveyors at Koondaur... ..                               | 4,980            | 4,923      | ...   | 4,923      | ... | ...    | 4,923      | 57        |
| Engineers' Bungalow at Dhoor ... ..                                                                          | 3,200            | 2,887      | ...   | 2,887      | ... | ...    | 2,887      | 313       |
| Storekeepers' Huts ... ..                                                                                    | 98,921           | 78,417     | ...   | 78,417     | ... | ...    | 78,417     | 20,539    |
| Total...                                                                                                     | 72,034           | 66,741     | 29    | 66,770     | ... | ...    | 66,770     | 5,264     |
| Line of Telegraph...                                                                                         | 190,78,352       | 109,84,205 | 4,548 | 109,88,753 | ... | 14,563 | 109,74,190 | 11,04,197 |
|                                                                                                              |                  |            |       |            | ... |        |            | 35        |

*Proceedings of the Madras Government, Public Works Department,  
17th January 1874.*

*Quarter's Expenditure.*—It will be remarked that the expenditure of the quarter is shown to have been Rupees 4,548, and the net total outlay, up to 31st March 1873, Rupees 1,09,74,190.

6. *Excess Expenditure.*—The only work on which there was expenditure in excess\* of sanction was the Valapanoor Bungalow, and this excess was covered by the sanction given in Government Order, No. 30, dated 6th May 1873.

7. *Estimates submitted to and sanctioned by Government during the quarter.*—Estimates of repairs for season 1873 for the upper section, amounting to Rs. 34,000, were received from the Acting Manager and submitted to Government during the quarter.

These estimates, as also the estimate of Rupees 34,700 for repairing the lower sections of the canal which was previously submitted, were sanctioned during the quarter.

8. The cost of Executive permanent establishments amounts for this quarter to 90 per cent. on the expenditure for construction; that of temporary establishments to 2.18 per cent.; and that of general management to 256.93 per cent.

*Total cost of Establishments.*—The total cost of the permanent establishments was therefore 257.83, and of temporary establishment 2.18 per cent. on the expenditure.

No. 220.

ORDER THEREON, 17th January 1874, No. 110.

IRRIGATION, No. 17.

ORDERED that this report be forwarded to the Home Government.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,

Secretary to Government.

To the Chief Engineer for Irrigation.

Exd. E. C. Shunker.  
Spare Copies

CP 53A

Office of the Chief Engineer  
for Irrigation  
Bengal 1<sup>st</sup> December 1873.

From

Lieutenant Colonel J. Mullins R.E.  
Chief Engineer for Irrigation

To

Colonel G. W. Walker R.E.  
Secretary to Government P.W.D.

Sir,

I have the honor to submit the following report on the expenditure incurred on the works of the Madras Irrigation and Canal Company during the quarter ended 31<sup>st</sup> March 1873.

Expenditure during the quarter.

The total expenditure for the period under review amounted to Rupees 4,548 as compared with Rupees 10,101 for the previous quarter.

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

1<sup>st</sup> Section Main Canal (including head works) Rupees 13 - 2 - 1 on the 1<sup>st</sup> Section Main Canal 1 to 17 1/4 miles, the items being

|                                      |            |
|--------------------------------------|------------|
| Alteration of Calingulah R. & S.     | 1 - 8 - -  |
| Plant, Store and Cartage             | 2 - 12 - 1 |
| Charges                              |            |
| Special superintendence and sundries | 8 - 14 - - |

Rupces 947-5-6 on the 3<sup>rd</sup> Section from the 33<sup>rd</sup> to the 143<sup>rd</sup> mile, the details being

Alteration of Calingulah. Rs. 18.74-514-1-8  
 do do " 19-0-7-6-9  
 do do " 20-411-5-9  
 Contingencies for Earthwork and Masonry } 8-5-4

Rupces 65-1-14 on the 5<sup>th</sup> Section from the 61<sup>st</sup> to the 72<sup>nd</sup> mile, the items being

Repairs of Canal 56-12-0  
 Contingencies for Earthwork 8-5-14

Rupces 1515-3-6 on the 7<sup>th</sup> Section, miles 92<sup>nd</sup> to 114<sup>th</sup> for,

Repairs of Canal 33-0-0  
 Contingencies for Earthwork and Reinforcement } 75-12-0

Alteration of Calingulah Rs. 500-0-0

Alteration of Calingulah Rs. 595-2-8  
 Embankment and Cutting 311-4-10

Rupces 36 on the 8<sup>th</sup> Section, miles 115 to 143, on repairs of Canal.

Rupces

9<sup>th</sup> Section Rupces 106-6-14 on the 9<sup>th</sup> Section, or miles 144 to 178, on repairs of Canal.

10<sup>th</sup> Section Rupces 111-4-0 on the 10<sup>th</sup> Section, miles 179<sup>th</sup> to 186 of the Canal, on

Butchumpally Calingulah Channel 111-4-0

Distribution works.

3. The outlay on works of Distribution was Rupces 1731-6-8 namely on the

1<sup>st</sup> Section Rupces 10-9-3  
 4<sup>th</sup> " " 154-1-10  
 7<sup>th</sup> " " 25-11-0  
 8<sup>th</sup> " " 987-8-7  
 9<sup>th</sup> " " 295-4-10  
 10<sup>th</sup> " " 258-3-2

Telegraph Line.

4. The outlay under this head was Rupces 29-2-8, on stores and proportion of store charges.

Abstract of Expenditure.

5. The following statement shows the expenditure on all works from the commencement to the close of the quarter compared with sanctioned estimates.

Works.



|                                                                                                        |          |          |       |          |         |
|--------------------------------------------------------------------------------------------------------|----------|----------|-------|----------|---------|
| Improvement of the road approaching to the above building and repairing Culverts at Bangalore          | 678      | 318      | 318   | 318      | 260     |
| Converting the unfinished buildings intended for a Gun powder manufactory into a Hospital at Bangalore | 427      | 31       | 31    | 31       | 396     |
| Office and Store building at Bangalore in                                                              | 1990     | 1990     | 1990  | 1990     |         |
| Repairs to Bangalore Bangalore                                                                         | 564      | 599      | 599   | 599      | 35      |
| Office and Store at Bangalore in Bangalore Division                                                    | 4123     | 4123     | 4123  | 4123     |         |
| Repairs to Bangalore Bangalore                                                                         | 1000     | 364      | 364   | 364      | 666     |
| Office and Store at Bangalore in                                                                       | 3977     | 3833     | 3833  | 3833     | 144     |
| Office at Bangalore in Bangalore Division                                                              | 5283     | 5278     | 5278  | 5278     | 6       |
| Office and temporary store shed at Bangalore in                                                        | 642      | 67       | 67    | 67       | 576     |
| Repair to Ancient Office at Bangalore                                                                  | 327      | 308      | 308   | 308      | 19      |
| Office, Store and Workshop at Bangalore                                                                | 30612    | 15158    | 15158 | 15158    | 15454   |
| Draw and Draft building at                                                                             | 15328    | 15168    | 15168 | 15168    | 160     |
| Room for receiving and despatching stores at                                                           | 1236     | 561      | 561   | 561      | 675     |
| Quarters for Sub. Assistant Engineers and Assistant Surveyors at Bangalore                             | 4980     | 4923     | 4923  | 4923     | 57      |
| Engineers' Bangalore at Bangalore                                                                      | 3200     | 2887     | 2887  | 2887     | 313     |
| Chief Engineer's huts                                                                                  | 98921    | 78417    | 78417 | 78417    | 20539   |
| Line of Telegraph                                                                                      | 72934    | 66741    | 66741 | 66741    | 5264    |
| Total                                                                                                  | 12078352 | 10984206 | 4548  | 10988753 | 1194197 |
| Grand Total                                                                                            |          |          |       |          | 35      |

Quarter's Expenditure. It will be remarked that the expenditure of the quarter is shown to have been Rupees 1,548, and the net total outlay, up to 31<sup>st</sup> March 1873, (Rupees 109,74,190.---)

Excess Expenditure. 6. The only work on which there was expenditure in excess of sanction was the Valapam amount sanctioned Rs. 564 599 Bangalore, and this excess was covered by the sanction given in Government Order. N<sup>o</sup>. 30 dated 6<sup>th</sup> May 1873.

Estimates submitted to and sanctioned by Government during the quarter. 7. Estimates of repairs for season 1873 for the Upper section, amounting to Rupees 34,000, were received from the Acting Manager and submitted to Government during the quarter.

These estimates, as also the estimate of Rupees 34,700 for repairing the Lower Sections of the Canal, which was previously submitted, were sanctioned during the quarter.

8. The cost of Executive permanent Establishments amounts for this quarter to 90 per cent on the expenditure for construction, that of temporary establishments to 2.18 per cent, and that of General Management to 256.93 per cent.

Total cost of Establishments. The total cost of the permanent establishments

ments was therefore 257.83 and of temporary  
establishment 2.18 percent on the expenditure.

I have the honor to be

Sir,

Your most obedient servant

William R. Smith, C.E. (R.E.)

Chief Engineer for Irrigation

P. W. 1873 Department  
No 53A

From No 6731.  
The Chief Engineer  
for Irrigation

To the Secretary to  
Government  
D. O. M.

Dated 1<sup>st</sup> December  
Dispt 12<sup>th</sup>  
Received 12<sup>th</sup> 1873.

Reports on the  
progress made with  
the works of the M. S.  
& C. Co's Canal during  
the yr ended 31<sup>st</sup>  
March 1873.

With order

No 110  
Ordered that the Report be for.

Forwarded to the Home Dept.

30/12

Adm for Engrs! Recd 12/11/73

Co. W. & Co. to be paid  
27 Jan 1874

31  
Govt. of Madras.  
PUBLIC WORKS.

To the Chief Eng. for  
Irrigation

Dated

Encl.

Recd.

G. O. 17 Jan 1874 No 110  
110

Nos. 719 & 220

Mr. St. John's Works -

Report on the progress  
of the works for the  
quarter ending 31<sup>st</sup> Dec  
1873, ordered to be for-  
warded to the Home  
Govt.