

(1) Number of pages _____

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	160	Press
		—M.L.—
Dated	12. 1. 1941.	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
17th June 1865.*

No. 118. Read the following Proceedings of the Madras Government in the
Revenue Department. —

Approving of the proposal of the Consulting Engineer, Irrigation and Canal Company, that each Superintending Engineer be authorized to expend a sum not exceeding Rupees 300 in connection with the experiment to determine the quantity of water required to bring an acre of paddy to maturity in soils of different kinds. (Here enter 12th June 1865, No. 1,252.)

No. 119. ORDER THEREON, 17th June 1865, No. 1,686.

CIVIL WORKS, No. 72.

1. Communicated to the Superintending Engineers and to the Consulting Engineer, Madras Irrigation and Canal Company.

2. The charge will be treated as a minor work, and will be met from the Revenue under "Agricultural."

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer,
Revenue Department
Controller of Public Works Accounts
Assistant General
Consulting Engineer for Madras Irrigation and Canal Company

*Proceedings of the Madras Government, Revenue Department,
12th June 1865.*

No. 237. Read the following letter from Captain J. MULLINS, R. E., Consulting Engineer, Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Madras, 29th May 1865, No. 16:—

Sir,

1. In accordance with the Orders of Government contained in Proceedings, Madras Government, No. 300, of the 7th February last, I addressed to the

• Copy enclosed

Superintending Engineer, 4th Division, No. 157, 29th April.
Do do 6th Division, No. 200, 6th March.
Do do 8th Division, No. 209, 2nd May.

Superintending Engineers of the several Divisions a letter No. 157* of the 18th idem. I have received replies to that letter from the 4th, 6th, and 8th Divisions only, and the Superintending Engineer of each of these Divisions states that, with the Establishment at his disposal,

it is not practicable to arrange for the experimental observations requisite for ascertaining the quantity of water used, per acre of paddy cultivation, per hour.

2. Colonel Baile offers to build cisterns. Captain Moly suggests the employment of two or three intelligent men who might be taught all that is required in a few days, and Lieutenant Colonel Greenway mentions that from observations made on certain of the Godavery channels he considers that 2½ cusecs per acre per hour is not more than sufficient for a full supply.

3. I should add, however, that information of correspondence on the subject has been submitted by the 2nd Division, and that in that Division, instructions have been given for the observations during the season now about to commence.

4. With a view to enable the Superintending Engineers of all the Divisions to make special arrangements for obtaining the information required, I have been led to suggest that they be each authorized to expend a sum not exceeding Rs. 500, which would probably suffice for the payment of two Gunastahs for ten or five months, and for sundry charges, such as building cisterns, &c.

Referred to the Revenue Department, with reference to the Orders in that Department, dated 31st January 1865, No. 162.

For SAINT GEORGE, (Signed) CHARLES A. ORR, Colonel, R. E.,
12th June 1865. Secretary to Government, P. W. D.

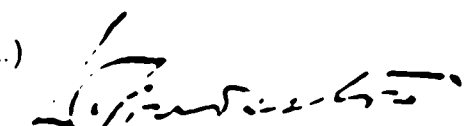
No. 238. ORDER THEREON, 12th June 1865, No. 1,282.

Miscellaneous.

1. The Government approve the proposal that each Superintending Engineer be authorized to expend a sum not exceeding Rs. 500, in connection with the experiment to determine the quantity of water required to bring an acre of paddy to maturity in soils of different kinds.

2. The subject is one of importance throughout the Presidency in regard to the Public Works Department, and the charges can be met from the Budget provision for that branch of the public service.

(True Extract.)


Acting Secretary to Government.

To the Board of Revenue
in the Public Works Department
12th June 1865
For S. T. Augustus

*Proceedings of the Madras Government, Revenue Department,
12th June 1865.*

No. 237. Read the following letter from Captain J. MULLINS, R. E., Consulting Engineer, Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Madras, 29th May 1865, No. 16. —

Sir,

1. In accordance with the Orders of Government contained in Proceedings, Madras Government, No. 370, of the 7th February last, I addressed to the

• Copy enclosed

† Superintending Engineer, 1st Division, No. 1070, 20th April
Do do 2nd Division, No. 2,662, 6th March
Do do 3rd Division, No. 2,691, 2nd May

Superintending Engineers of the several Divisions a letter No. 127* of the 18th idem. I have received replies to that letter from the 4th, 6th and 8th Divisions only, and the Superintending Engineer of each of these Divisions states that, with the Establishment at his disposal,

it is not practicable to arrange for the experimental observations requisite for ascertaining the quantity of water used, per acre of paddy cultivation, per hour.

2. Colonel Biddall offers to build cisterns; Captain Mole suggests the employment of two or three intelligent men who might be taught all that is required in a few days; and Lieutenant-Colonel Greenway mentions that from observations made on certain of the Godavery channels he considers that 2½ cubic yards per acre per hour is not more than sufficient for a full supply.

3. I should add, however, that information of considerable value was transmitted by the Superintending Engineer, 2nd Division, with reference to previous correspondence on the subject, and I

believe that, in that Division, instructions have been given for the record of observations during the season now about to commence.

4. With a view to enable the Superintending Engineers of all the Divisions to make special arrangements for obtaining the information required, I have the honor to suggest that they be each authorized to expend a sum not exceeding Rupees 300, which would probably suffice for the payment of two Gunstals for four or five months, and for sundry charges, such as building cisterns, &c.

Referred to the Revenue Department, with reference to the Orders in that Department, dated 31st January 1865, No. 162.

For SECTY GENL, (Signed) CHARLES A. ORR, Colonel, R. E.,
12th June 1865. Secretary to Government, P. W. D.

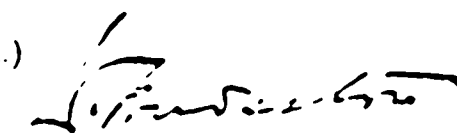
No. 238. ORDER THEREON, 12th June 1865, No. 1,282.

Miscellaneous.

1. The Government approve the proposal that each Superintending Engineer be authorized to expend a sum not exceeding Rupees 300, in connection with the experiment to determine the quantity of water required to bring an acre of paddy to maturity in soils of different kinds.

2. The subject is one of importance throughout the Presidency in regard to the Public Works Department, and the charges can be met from the Budget provision for that branch of the public service.

(True Extract.)


Acting Secretary to Government.

Transmitted to Revenue
and Public Works Department
For S. T. Acting Secy

Civil Works

1886

Communicated to Mr.

Superintending Engineer and to the
Consulting Engineer, J. C. Coffey.

2. The charge will be borne
as a minor work, and will be
and shown the "reserve"
under "contingents".

George J. Coffey
17th June 1885

Staffe Supply Engineer
General District
Controller of the District
Accountant General
Engineering District of C. C. C.

25th June 1885

1887

1887

Captain, J. C. Coffey, R.E.
Consulting Engineer, Land, C.E.

The Superintending Engineer of the
1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th Divisions.

1887

1887
1887

1. With reference to the order of Government as far as margin, I have the honor to request the favour of your assistance in ascertaining by experimental observation the quantity of water required for the cultivation of paddy.

2. With a view to the more ready use of the information obtained, I would suggest the record of the observations in the form enclosed. It will not always be practicable to fill in all the particulars, but their presence or absence will show the degree of completeness attained.

3. It will be advisable, I think, with a view to comparison, to make 2 or 3 sets of measurements by means of small tubes which

which it will probably be convenient to construct of a capacity a little more than sufficient for a day's supply to the area to be irrigated therefrom, and an area of 3074 ^{say 400} ^{per acre} ⁵⁴⁸⁴¹ for acres would be quite sufficient for the ^{for 1 day} purpose.

4. As far as may be practicable, for experiments on a larger scale, lands irrigated exclusively either from tanks or channels should be selected, so that as few sources of error as possible may exist. The larger the areas, provided they be capable of accurate estimation, and the water supplied can be readily measured, the more reliable will be the results.

5. Perhaps in some part of your Division there may be a tank which has been contained at different levels and the capacity of which can be estimated with reference to a register so that its contents at the commencement of the season of irrigation, the quantities received from time to time, and the quantity left at the close of the season can be ascertained with sufficient accuracy, and if, besides this, the village has been surveyed and each field measured it might be found practicable with the assistance of the Revenue authorities to have noted upon the village maps the date of commencement and completion

of the cultivation of each field irrigated during the season, and a rainfall register and one of evaporation kept at or not far from the village would complete the data necessary for the computation with very great accuracy of the quantity of water used, and from a series of such observations the quantity really necessary could be deduced.

6. In the case of channels it would be well to compute the discharge occasionally from the observed velocity, and check upon the calculated discharge from the observed depth and the known dimensions, ^{as to the point on the surface according to size of channel and depth} but as this will be practicable only when some one acquainted with hydraulic problems can spare the necessary time, the discharge calculated from the depth and dimensions, &c., with the velocity checked perhaps by observation of surface current velocities will be all that can be arranged for generally.

The question upon which the Government may wish for information is one of much interest, as well of considerable importance not only to the Irrigation Company, but to all who are in charge of Hydraulic works, and who are able to furnish the information obtained available for the use of the Department generally, so that each officer who may be

deputed

expected to superintend the experiments will
obtain some return for the trouble which these
experiments will occasion.

8. The observations should be made so far
as may be practicable during the migration
seasons of 2 years, and at the same works
in each year, and the record and report for
each separate experiment can be sent to this
Office as soon as completed.

I have the honor to be,
Sgt. Captain J. H. Mullins, Jr.
(Consulting Engineer, U.S.C.E.)
(True Copy)

Whitcomb (Captain, U.S.C.E.)
(Consulting Engineer, U.S.C.E.)

1907/1908/1909

Ed. H. B.

1907-1908-1909

Enclosure in letter of
16/29 May 1906 from
Franklin D. Rogers (U.S.C.E.)

7/1/1885
(Pro. of York & Gen. Lema
No 2115

No. of your number
& name of the

27/12/12, June
Received
81. - 19/12/82

Signature of the
County of York

The County of York
is a county in the
East of England
and is one of the
largest in the
country. It is
bounded by the
North Sea to the
north and east,
by the County of
Lincoln to the
south, and by the
County of Derby
to the west.

No 2115

W. H. W. W. W.
1885 - 1886