

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 817	Press
263-64	Mis.-
Dated 18. 3.	1871 .

Not to be folded or roughly handled

10

*Proceedings of the Madras Government, Public Works Department,
18th March 1871.*

No. 463. Read the following letter from the Consulting Engineer for Irrigation and Canal Company, to the Secretary to Government, Public Works Department, dated Madras, 1st March 1871, No. 126:—

I HAVE the honour to submit the correspondence as per margin, regarding a revised Conservancy Establishment for the Main Canal, from Soonkasala to Cuddapah, in supersession of that sanctioned in Government Orders No. 992, 8th April, and No. 1,391, 4th June 1870.

2. With the first letter the Agent submitted a scale of establishment prepared by the Chief Engineer, costing Rupees 3,575 monthly, for the first six sections or upper 94 miles, and one, costing Rupees 3,613 monthly, for the remaining four sections or lower 94 miles.

With the second communication he forwards amended statements, prepared after consideration of my letter of 26th January 1871, which amount to Rupees 3,044 and Rupees 3,022.

3. The following table shows the particulars of the last amended statement as compared with the Conservancy Establishment formerly sanctioned:—

Sanctioned, 4th June 1870.	Total.	Proposed, 23rd February 1871.	Total.	In-crease.	De-crease.
	RS.		RS.	RS.	RS.
1 Executive Engineer ... 600 + 150 =	750	1 Executive Engineer ... 600 + 150 =	750	...	...
4 Chainmen ... 7 =	28	4 Chainmen ...	28	...	...
		1 Assistant Engineer ... 450 + 120 =	570	570	...
		4 Chainmen ...	28	28	...
4 Overseers ... 60 + 20 =	320	5 Overseers ... 60 + 20 =	400	80	...
48 Bankers ...	296	141 Bankers, at 6 Rupees	846	550	...
1 Head Sluice Tindal ...	20	1 Head Sluice Tindal ...	20	...	...
4 Lascars ...	24	4 Lascars, at 6 Rupees	24	...	...
		1 No. 9 Tindal ...	10	10	...
8 Lascars for Sluice ...	48	2 Lascars, at 6 Rupees	12	...	36
6 Do. do. ...	36		...	...	36
1 Superintendent of Irrigation ... 110 + 25 =	135	1 Superintendent of Irrigation ... 90 + 25 =	115	...	20
4 Peons ...	24	3 Peons ...	21	...	3
1 Accountant ...	50	1 Accountant ...	50	...	...
1 Clerk ...	35	1 Clerk ...	35	...	...
5 Signallers ...	135	5 Signallers ...	135	...	...
Total...	1,901	Total...	3,044	...	...

The chief items of increase are an Assistant Engineer and a fifth Overseer, which the Chief Engineer recommends on account of the great length of canal, 94 miles in each division, which is too much for one officer to travel over so frequently and rapidly as is desirable at that period of the year when there is the greatest apprehension of leaks, which, if not at once detected and promptly repaired, would result in breaches, and which unfortunately is the very time that rapid travelling by the country roads or along the banks is impracticable. The number of bankers

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in each division is proposed to be 141 Bankers, giving an average of three men to every two miles, and which is the same proportion as at the Chief Engineer's originally proposed. The condition in which I found the Banks at the close of the last rainy season, while in charge of the smaller number of Bankers, induces me to concur in the Chief Engineer's opinion, that the proposed number asks for is not too much.

4. The establishment proposed for the last four sections, or lower 24 miles of the Main Canal, is as follows:—

1 Executive Engineer	Rs.
4 Chainmen	600 + 150 = 750
1 Assistant Engineer	25
4 Chainmen	150 + 120 = 270
4 Overseers	25
141 Bankers, at 6 Rupees each	846
3 Head Slave Tanks, at 10 Rupees each	30
8 Do. Lascars, at 3 " "	24
6 Emptying sluice do., at 3 " "	18
1 Do. do., Tindal	10
1 Surveyor of Irrigation	90 + 25 = 115
3 Chainmen, at 7 Rupees each	21
1 Accountant	50
1 Clerk	35
5 Signallers	135

Total... 3,022

5. The whole establishment will cost Rupees 3,011 + 3,022 monthly, or Rupees 72,792 a year, exclusive of any special repairs that may be necessary on account of breaches, and exclusive of such general establishment as it may be considered necessary to maintain as agency, after the 30th of June next, when it is expected that the undertaking will be completed.

6. It is unnecessary for me again to enter into the question of the probable returns from irrigation, regarding which I recently reported. I will only observe that I will be agreeably surprised if the revenue of the current year is sufficient to cover the cost of the conservancy establishment now proposed, exclusive of any home expenditure or agency charges, and yet I feel it necessary to recommend the scale proposed, for I believe the more liberal this establishment is the less danger there will be of breaches, and the smaller the cost of special repairs will be.

7. It will be observed that the number of sluice lascars for the upper division is reduced, and a smaller proportion asked for for the lower division. The explanation is that one lascar to each surplus sluice is insufficient, and more would cost so much that the Chief Engineer prefers leaving all sluices open in the rainy months, with a bank of earth in front of each, which would be carried away in the event of the water in the canal rising above a contour level from floods.

8. Since writing the above I have received the accompanying letter, No. 100, of the 2nd instant, from the Agent, Madras Irrigation and Canal Company, urging that the early sanction of Government may be given to the Conservancy Establishment as proposed above.

*Proceedings of the Madras Government, Public Works Department,
18th March 1871.*

From the Agent and Manager of the Madras Irrigation and Canal Company, to the Consulting Engineer for the Madras Irrigation and Canal Company, dated Madras, 23rd January 1871, No. 30.

Permanent Conservancy Staff.

I HAVE the honour to forward copy of the Chief Engineer's letter, No. 40, dated 7th instant, together with a list proposing an establishment for the maintenance of a permanent Conservancy staff for the first six and lower four sections (24 miles) of the Main Canal, and request you will be good enough to obtain the sanction of Government to the same.

From the Chief Engineer, to the Agent and Manager of the Madras Irrigation and Canal Company, dated Kurnool, 7th January 1871, No. 40.

Permanent Conservancy Staff.

The time seems to have arrived when the experience of a rainy season, during which a fair trial was made of the Conservancy staff sanctioned in G. Os. 992 of 8th April last, and 1,391 of 4th June last, gives material for that reconsideration of the scale of establishment which I proposed, and which is sketched in the Consulting Engineer's letter attached to the former order. In compliance with paragraph 5 of the same order, I have the honour to recommend your reconsideration of the subject.

2. As will be seen in their Order No. 2,963, of 7th ultimo, the Government are prepared to expect that "a considerable time"—the context implies some years—"must elapse before all the embankments are consolidated and rendered safe, the locks tried, and the canal generally placed in a complete and perfect working condition."

3. On the subject of repairs the Consulting Engineer in his report, paragraph 55, *et seq.*, notices that some of the earthwork has deteriorated for want of timely repair, and that, after paying a good deal of attention to the subject, he records more prominently his belief that the annual repair of this canal will be a very heavy item. A walk along the banks in May, where they have not been attended to, and the soil is black cotton, silt or sand, shows them full of deep sun-cracks; this alone indicates a heavy item of expense, due solely to the periodical drying of the canal. To the same cause is due the injury by vermin; and that this affects the question of permanent staff, and especially of the higher officers, will be clear from the notorious insidious danger of such leaks. I suppose it not extravagant to suppose that three leaks may occur from this cause in each section of canal during the two months of filling, and perhaps reports of as many more. This in six Sections, 92 miles long in the total, when rain is frequent and all tracks are deep in mud, would alone (it may be calculated) be enough to divert the Engineer's mind from the arrangement of details of distribution, if he be unaided. The fact has been that the Engineer did not, and I believe could not, give anything like proper attention to drilling his Overseers and men into order; to securing proper checks on the work of his staff while the canal was being successfully filled.

The imperfect growth of grass on the slopes is another consequence of drought, which requires recognition in allotting a staff; the importance of *turfing* slopes is recognized in every contract for cuttings and banks for English railways and canals so far as I know. The staff on this canal have not the assistance of turf in frequent cases.

If I am correctly informed, five men to three miles of a Railway is a good permanent allowance for this country. I have only recommended three men for two miles, and I cannot expect fewer to be needed. The canal banks are rarely less than ten feet high, and where the bank is single it is for miles ten times the size of such a bank. The level has to be maintained under the test of water, and the service is one which continues day and night.

I will add that, amongst the masonry works, the locks and the Pennair anicut need some professional inspection. I therefore recommend a staff as before, but increased by an Assistant Engineer, and with an Inspector added for attention to masonry works. When the canal is in

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13th March 1871.*

established work. I have no doubt the supervision may be reduced, but, in the meantime, a part of the money which would run the risk of serious loss is not the policy for this country.

The staff I recommend is attached.

No.	Office.	Present occupant	Salary	Allowance	Cost of Living	Total	Remarks
1	Executive Engineer	...	84	...	...	...	
1	Assistant do. ...	...	80	150	...	...	
1	Inspector ...	...	450	120	24	594	Retired
5	Overseers, (20) miles	...	250	120	24	394	Indemnity
111	Bankers, 14 1/2 miles	...	60	20	21	301	Indemnity
1	Head Scribe Tindal	...	6	...	...	...	Indemnity, 2, 1/2 miles
4	Lascars to do. ...	...	20	...	...	...	Indemnity
1	No. 9 Scribe Tindal	...	6	...	...	20	Indemnity
2	Lascars to do. ...	...	10	...	...	...	
1	Surveyor of Irrigation	...	6	...	...	10	
1	Accountant	...	...	...	...	...	
1	Clerk ...	...	...	...	...	...	
3	Signallers ...	...	...	...	...	...	

		For Labor / per Month				1911	
1	Executive Engineer	...	...	...	...	...	...
1	Assistant do. ...	...	...	...	...	...	...
1	Inspector ...	...	...	...	...	...	...
4	Overseers ...	...	...	...	...	...	...
141	Bankers ...	...	...	...	...	...	...
3	Head Stairs Tinsels	...	...	...	...	...	...
8	Do. Lascars	...	...	...	...	...	...
6	Emptying Stairs Lascars	...	...	...	...	...	...
1	Do do. Tinsels	...	...	...	...	...	...
1	Surveyor of Irrigation	...	...	...	...	...	...
1	Accountants	...	...	...	...	...	...
1	Clerk	...	...	...	...	...	...
5	Signallers	...	...	...	...	...	...

J. H. LATHAM,
Chief Engineer.

From the Consulting Engineer for Irrigation and Canal Construction, to the Agent and Manager of the Malras Irrigation and Canal Company, Malras, California, No. 206.

2. The cost of the

2. The cost of the estate, including the cost of the first mortgage, of the first of said

to paragraph 3 of the first annex to the

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"when the revenue shall have been developed, the Government will be quite prepared to consider any proposals that may be brought forward for placing the Conservancy Establishment on a more complete and efficient footing."

3. Instead of development there has, owing to untoward circumstances, been a falling off in the revenue, and I am not aware of any circumstances to warrant the expectation of a greater revenue in the length of canal referred to at the present date than there was nearly a year ago, when the Government fully considered the case and deliberately sanctioned a much smaller establishment than the Chief Engineer proposed.

4. The Chief Engineer has, I think, shown cause why the number of bankers should be increased, and has given a fair reason for the Executive Engineer having an Assistant; but a comparison of the establishment that he now proposes, with that which was last sanctioned, shows further discrepancies, regarding which the Government will require fuller information than is to be found in the Chief Engineer's covering letter; more especially as it seems to me that there is little probability of the revenue for the present covering the cost of maintenance.

5. The establishment proposed for the whole length of canal is Rupees 86,256 a year.

Add annual repair at 300 Rupees a mile, say .. 50,000

.. 1,36,256

which, exclusive of the cost of general management, would absorb the revenue of 31,064 acres, the largest area yet irrigated having been 1,872 acres.

7. Before, therefore, submitting the proposal for the consideration of Government, I request to be informed—

1st.—Why it is now proposed to give the Executive Engineer of each division of the canal a salary of Rupees 800 a month, although he is to have an Assistant to share the work, while 630 Rupees was less than a year ago considered proper remuneration?

2nd.—What necessity there can be for a Masonry Inspector of completed works, which the Executive Engineer and his Assistant will in due course inspect and have no difficulty in superintending the repairs of?

3rd.—Why chainmen for the Engineers, peons for the Surveyor of Irrigation, and lascars for sluices, on the necessity for whom so much stress was laid in former communications, are now altogether omitted?

8. Will you also ascertain for me the meaning of the following expression in the Chief Engineer's letter, in reference to the number of bankers required for each mile.

"The *level* has to be maintained under the test of water, and the service is one which continues

"The level has to be maintained under the test of water, and the service is day and night."

day and night.

Indorsement of the Agent and Manager of the Madras Irrigation and Canal Company, date
Madras, 23rd February 1871, No. 86.

of the Madras Irrigation and Canal Company

From the Chief Engineer, to the Agent and Manager of the Madras Irrigation and Canal Company dated Kurnool, 15th February 1871, No. 253.

I HAVE the honour to acknowledge your letter, No. 139, of 7th instant, with that of the Consul

2. In paragraph 5 of G. O., 992, of 8th April last, it is noted that "Government consideration should be prepared with due regard to the present amount of the Com-

2. In paragraph 5 of G. O., 982, of 1931, it is stated that the revised scale should be prepared with due regard to the party's revenue, or at least in relation to that which may be expected to be realized within the

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18th March 1871.*

"next year or two." On this matter I have no data beyond the estimate of the Deputy Collector of Nundah, I believe very carefully made, that there will be 5,600 acres irrigated under the first six sections of canal. I would prefer not to appeal to an estimate, however carefully made, but the statistics of last year were rendered so abnormal by the dusters, that it would be more misleading to appeal to them as data than to accept a carefully made estimate. If statistics of past revenue be taken, they present no reason for reconsideration of the scale of staff. If, under the abnormal circumstances of the past season, estimates of revenue be admitted, I think there has been a decided development of grounds for expecting revenue. The canal has had a severe test, and the weakest parts have been repaired. The completion of the canal and distribution, enough to supply all probable demand of irrigation, is now more certain.

3. On reconsideration, however, it seems to me that the Consulting Engineer correctly interprets the G. O., No. 992, to lay down the rule that, for the present, the Contracting staff shall be reduced to the smallest staff which can be expected to supply the requirements of current irrigation, and prevent the canal and works falling out of repair. I will only mention the importance, in my view, of developing the cultivation and taxation together, and my conviction that an efficient staff, able to urge on that development most rapidly, would in the end prove the most economical.)

4. Under these conditions there will not be a great work of an elaborate kind to require English trained Inspectors; and if they be cut out, and the Executive Engineers pay reduced to Rs. 1000, the superintendent is left to find strong enough for the work required.

[illegible]

6. The above mentioned persons are not to be considered as

For first six months
For last four months

roughly estimated. It may be a few million dollars, but for the purpose of merely producing cash and liquidating the assets of the value of human remains.

7. In reference to the last paragraph of the preceding paragraph letter, I have the honor to explain that, in reference to what is the water used in the case I have mentioned that any subsidence (of comparatively little extent) may take place is immediately indicated by the water, which is a true test of the fact of such a subsidence, as I have said for the of inactivity. The water is also poured in the case of a subsidence, as I have said for the of working is well enough to be by the water used in the case of a subsidence, as I have said for the of trains only and with a single engine.

8. Importation

*Proceedings of the Madras Government, Public Works Department,
18th March 1871.*

For first six Sections (94 Miles.)

For first six Sections (94 Miles.)							
No.	Office.	Proposed occupant.	Salary.	Allow- ance.	Contin- gent.	Total.	
			RS.	RS.	RS.	RS.	
			600	150	28	778	Kurnool.
1	Executive Engineer	.....	450	120	28	598	Velapanoor.
1	Assistant do.	.....	60	20	...	400	Soonkasala, Poodoor,
5	Overseers (20 miles, *	.....	6	...	...	816	Ulloor, Jupad, Tood- cherla.
			20	...	...	20	Soonkasala.
141	Bankers, 1½ a mile	.....	6	...	...	24	
1	Head Sluice Tindal	.....	10	...	...	10	
4	Lascars to do.	.....	6	...	...	12	
1	No. 9 Sluice Tindal	.....	90	25	21	136	
2	Lascars to do.	.....	50	...	...	50	
1	Surveyor of Irrigation	.....	35	...	...	35	
1	Accountant	.....	...	...	...	135	
1	Clerk	.....	...	...	...	3,944	
5	Signallers	.....					
For Lower four Sections (94 Miles.)							
			600	150	28	778	Dhoor.
			450	120	28	598	Ayaloor.
1	Executive Engineer	.....	60	20	...	320	
1	Assistant do.	.....	6	...	...	846	
4	Overseers *	.....	10	...	...	30	Jootoor, Rajoly, and Pennair.
141	Bankers	.....	6	...	...	48	
3	Head Sluice Tindals	.....	6	...	...	36	
8	Do. Lascars	.....	6	...	...	10	
6	Emptying Sluice Lascars	.....	10	...	...	136	
1	Do. Tindal	.....	90	25	21	50	
1	Surveyor of Irrigation	.....	50	...	...	35	
1	Accountant	.....	35	...	...	35	
1	Clerk	.....	...	...	...	135	
5	Signallers	.....				3,022	

... can be got the number will be increased, but their total pay not exceeded

(Signed) J. H. LATHAM,

* Note.—Where inferior Overseers only can be got the number will be increased, but their total pay not exceeded.

(Signed) J. H. LATHAM,
Chief Engineer.

FORWARDED to the Consulting Engineer with reference to his No. 306 of the 26th ultimo.
(Signed) F. H. HENSLOWE,
Agent and Manager.

Endorsement of the Agent and Manager of the Madras Irrigation and Canal Company, dated
Madras, 2nd March 1871, No. 100.

From the Chief Engineer, to the Agent and Manager of the Madras Railway, dated Kurnool, 23rd February 1871, No. 304.

If the Government do not decide on a Conservancy staff before the middle of March, I see no course but to recommend then the Cancelling of the notices served on the most suitable of the Engineers who may be still on the staff, and who will consent to stop after 1st July. The result will possibly be that a staff different from the one I have recommended will be retained, but such difference must be adjusted or paid out of capital. Already, in the uncertainty, both the Assistant Engineers I have proposed (the only ones we have on the staff) are seeking employment elsewhere. I trust that no such delay of sanction may occur.

Recommended to the Consulting Engineer for early attention.
(Signed) F. H. HENSLOWE,
Agent and Manager.

Forwarded to the Consulting Engineer for early attention.
(Signed) F. H. HENSLOWE,
Agent and Manager.

Establishment

Proceedings of the Madras Government, Public Works Department.
18th March 1871.

No. 461.

ORDER THEREON, 18th March 1871, No. 817.

IRRIGATION, No. 38.

With this letter the Consulting Engineer for the Madras Irrigation and Canal Company submits an application from the Agent and Manager for sanction to a revised scale of establishments for the conservancy of the first six sections or upper 94 miles, and of the last four sections or lower 94 miles of the Company's Canal, at a monthly cost of Rupees 3,044 and 3,022 respectively.

2. Although there is considerable reason to doubt whether the returns from irrigation will suffice to cover the cost of the proposed establishments, His Excellency the Governor in Council concurs with Colonel Carpendale in considering it necessary for the safety of the works, that those establishments should be placed on an efficient footing, and he accordingly sanctions the outlay of Rs. 6,066 per annum on their account in supersession of that authorized in the orders marginally noted.

8th April 1870, No. 972.
4th June 1,391.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

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

Consulting Engineer's office
Irrigation and Canal Company
Madras, 1st March 1871

N^o 126.

Col. J. Carpendale, R.E.
Consulting Engineer for the Canal Co.

The Secretary to Government
Public Works Department.

Have the honor to submit the corresponding

as per margin regarding a revised Conservancy
Establishment for the Ram Canal from Vontasala
to Cuddapah in supersession of that sanctioned in
Government Order N^o 992 of 8th April and N^o 1391 of
June 1870.

2. With the first letter the Agent submitted a
scale of establishment prepared by the Chief En-
gineer costing Rupees 3,575 monthly for the first
six sections or upper 94 miles, and one costing Rupees
3,613 monthly for the remaining four sections or
lower 94 miles.

With the second communication he forwards amended
statements prepared after consideration of my letter
of 26 January 1871 which amounted to Rupees 3,044
and Rupees 3,022.

3. The following table shows the particulars of the
last amended statement as compared with the Conservancy
establishment

of such general establishment as it may be
considered necessary to maintain as Agency after
the 30th of June next when it is expected that the
undertaking will be completed.

6. It is unnecessary for me again to enter into
the question of the probable returns from irri-
gation regarding which I recently reported -
I will only observe that I will be greatly
surprised if the revenue of the current year is
sufficient to cover the cost of the Conservancy
Establishment now proposed, including of course
some expenditure on Agency charges, and yet I
feel it necessary to recommend the scale proposed
for it because the more liberal this Establish-
ment is the less danger there will be of trouble
and the smaller the cost of special repairs will
be.

7. It will be observed that the number of
chains ladders for the upper division is very
and a smaller proportion set for for the
lower division - the explanation is that one
ladder & each surplus chain is insufficient
and more would cost so much that the Chief
Engineer prefers leaving all chains open in the
rainy months with a bank of earth in front of
each which would be carried away in the event of a

the water in the Canal rising above a certain
level from floods.

8. Since writing the above I have received
the accompanying letter No. 100 of the 2nd instant
from the Agent Madras Irrigation and Canal
Company urging that the early sanction of
Government may be given to the Conservancy
Establishment as proposed above.

Yours truly,
Your most obedient servant,
J. G. G. G. G. G.
Conservancy Co. Company

J. G. G. G. G.

Establishment formerly sanctioned.

Sanctioned 4 June 1870.

Proposed 25 February 1871.

Sanctioned 4 June 1870.	Proposed 25 February 1871.	Estab. - Increase - Decrease
Executive Eng. - 600 + 150 = 750	Executive Eng. - 600 + 150 = 750	-
4 Chainmen 7 28	4 Chainmen 28	-
	1 Assist. Engineer - 450 + 120 = 570	570
	4 Chainmen 28	28
4 Overseers 60 + 20 = 80	5 Overseers 60 + 20 = 80	80
4 S. Bankers 296	141 Bankers @ 6 Rs. 846	550
1 Head sluice Lindal 20	1 Head sluice Lindal 20	-
12 Saccars 24	12 Saccars @ 6 Rs. 72	-
	1 P. G. Lindal 10	10
8 Saccars for sluice 48	2 Saccars @ 6 Rs. 12	-
6 S. S. S. 36		36
1 Super. of irrigation 110 + 25 = 135	1 Super. of irrigation 90 + 25 = 115	-20
4 P. S. 24	3 P. S. 21	-3
1 Accountant 50	1 Accountant 50	-
1 Clerk 35	1 Clerk 35	-
5 Signallers 135	5 Signallers 135	-
<u>1901</u>	<u>3044</u>	

The chief cause of increased work is an Assistant Engineer and a fifth overseer which the Chief Engineer recommends on account of the great length of Canal 9 1/4 miles in each division which is too much for one officer to travel over so frequently and rapidly as is desirable at that period of the year when there is the greatest apprehension of leaks which if not at once detected and promptly repaired would result in breaches, and which unfortunately is the very time that rapid travelling by the country roads or along the banks is impracticable. The number of Bankers in each division is proposed to be 141 against 40 which the Government formerly approved.

approved of. It is a large number giving an average of three men & every two miles and which is the same proportion that the Chief Engineer originally proposed. The condition in which I found the banks at the close of the last rainy season while in charge of the smaller number of Bankers induced me to concur in the Chief Engineer's opinion that the proportion he now asks for is not too much.

4. The Establishment proposed for the last four sections or lower 9 1/4 miles of the Main Canal is as follows:-

1 Executive Engineer - 600 + 150 = 750
4 Chainmen 28
1 Assistant Engineer - 450 + 120 = 570
4 Chainmen 28
4 Overseers 60 + 20 = 80
141 Bankers @ 6 Rs. each = 846
3 Head sluice Lindals @ 10 Rs. each = 30
8 S. S. Saccars @ 6 Rs. = 48
6 Emptying sluice do - 6 = 36
1 do do do Lindal 10
1 Surveyor of irrigation - 90 + 25 = 115
3 Chainmen @ 7 Rs. each = 21
1 Accountant 50
1 Clerk 35
5 Signallers 135
<u>3022</u>

5. The whole Establishment will cost Rspees 3044 + 3022 monthly or Rspees 72792 a year, exclusive of any special repairs that may be necessary on account of breaches, and exclusive of

Public Works Department
No: 817 817
Proceedings of the Madras Government
Under date the 18. March 1916

Under date the 18th March 1911

Read the following

from the Com. Expt for
I & C Co. } N.E. No. 12671 - March 1877

With this letter the
Board Engineer for the
Madras Irrigation and
Canal Company sub-
mits an application
from the Agent and Ma-
nager for a revised scale
of establishments for the
company of the first
six sections or upper
9 1/4 miles and of the last
four sections or lower 7 1/4
miles of the Company's Canal,
at a monthly cost of Rs
3044 and 3022 respectively.
Although there is
considerable

*N.
A.
I. p. d.*

1875-1876

22. 10. 1902

S. O. H. 1877
The Continental
Bank & Trust Co.
New York

Ad 1st March 1871.
Rev. Fr. 13
Eves. 18.

Ex. 8.

Submit for analysis for:

responsible from the West
relieve the Union cover

Money to help for the Mission;
and that is all I want.

Colt's Patent in Enforcement of

Frankenm^{ts} in S. O. N. = 993.8°
April 18. = 1391.4° June 170.-

Ms. A. 9. 2. 13. 18. 19. 20. 21.

2nd April 1870 No 46-147
 1st June 1870 58-59
 7th Dec 1870 121-124

considerable reason to doubt
 whether the returns from
 irrigation will suffice to
 cover the cost of the proposed
 establishments. His Excellency
 the Governor in Council
 concurs with Colonel
 Carpendale in considering
 it necessary for the safety
 of the works ^{that} those establish-
 ments should be placed
 on an efficient footing
 and he accordingly sanctions
 the outlay of Rs 60 66
 per annum on their
 account in supersession of
 that authorized in the
 orders marginally quoted.

8 April 1870 Rs 772
 20 June 1870 Rs 1391

All
 (Signature)

The Honble Secy to Govt
 1st April 1870

1870

Govt. of 1870 Madras.

PUBLIC WORKS.

To the Consulting Engineer for
the Madras Irrigation
and Canal Company

Respectfully
Yours

Date

Loc.

G. O. 18 March 1870.

Nos. 1163 & 1164

Conveyance Settlements.

The revised scale of Con-
veyance Settlements.

For a portion of the Madras
Irrigation Canal & the Madras
Canal & the Madras
Canal & the Madras