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Proceedings of the Madras Government, Public Works Department, 13th September 1875.

No. 277. Read the following endorsement of the Chief Engineer for Irrigation, dated 8th September 1875, No. 1,026:—

From Captain A. C. SMITH, R.E., Executive Engineer, No. 2 Range, Chingleput District, to Colonel F. J. MOBERLY, R.E., Superintending Engineer, Chingleput, dated 27th August 1875, No. 1,375.

I HAVE the honor to report that on further examination I have ascertained that most of the foundations of the Thamarapauk anicut, lying between the present breach now under repair and the late extension, are in a very bad state; as far as I can ascertain quite as bad as those of the portion we are now repairing.

2. There was no reason whatever, until I found out how bad those at the breach were, to suspect any others; but on my second report I suggested the possibility of all the old foundations being rotten, and I sounded to the north and extended my ring bund to a place where we hit upon a sound well, thinking this was the end of the evil.

3. I, on receipt of the Chief Engineer's Memorandum, again made an attempt at examining the foundations to the north of this sound portion, and the borer showed foundations unsound. I then again extended my ring bund, the northern extremity of which now abuts on the southern end of the extension, the whole of which is as far as can be ascertained perfectly sound.

4. The whole space, about 250 feet in length, within the ring bund, with the exception of a small break to the north of the original enclosure, is unsound; in fact, unsound is not strong enough a word, it is rotten; the foundations apparently having never set in any shape or way, and there is no doubt whatever that they have been in this condition from the very commencement, their displacement increasing with every high fresh, until the last tore up some of the superstructure and discovered the evil.

5. At first I was in hopes that being on the clay, the part now discovered rotten to the north was not much injured, but having extended my ring bund I find exactly the same state of things here as in the original breach, though the body wall exhibits no signs of a crack and hangs together, bridging over the rottenness, consisting, as before, of well cubes and concrete never set; it is impossible, without risk of burying the coolies, to get at the inner row of wells, for we cannot commence dismantling the body wall and apron now as it is so late in the season; so I have ordered the Supervisor to bale out and get out stuff from the front as far as possible, and earn in concrete as far under the mass of masonry as he can without danger, and fill in the whole space in front with concrete.

6. Nothing further can be done this season, and I think such a treatment will at any rate last for one year's freshes. I have great faith in the concrete used, as it hardens like rock in 36 hours and increases in hardness with time, being immersed directly it is mixed and kept under water. With a mass of solid matter, then, some 10 feet or more wide and from 4 to 6 feet deep all along the front of the bad part, with a further protection of a rough stone apron 7 yards wide along the face of the body wall, I do not think we shall have much to fear from the heaviest freshes.

7. There is no time for the sinking of wells in front, nor could we sink them far on account of the clay, and there is no time for removing the superstructure to admit of fresh solid foundations being laid, so I cannot think of any other plan and trust it will

meet with your approval. The ring bund sustained some damage the other day in a slight fresh, so we are doing our best to push on with the original repairs so as to get the body wall rebuilt before heavier freshes take place.

No. 2,222.

FORWARDED for the information of the Chief Engineer for Irrigation in continuation of Superintending Engineer's No. 1,989, dated 21st ultimo.

CAMP, CHEMBRUMBAKUM, *2nd September* 1875. (Signed) F. J. MOBERLY, Colonel, R.E., *Superintending Engineer, Chingleput.*

SUBMITTED for the information of Government in continuation of previous reports. The Executive Engineer's proceedings for the temporary security of the unsound foundations are judicious, and there is no time this season for restoring the foundations as has been done where the damage became apparent during the freshes of 1874.

(Signed) JOHN MULLINS, Lieut.-Colonel, R.E., *Chief Engineer for Irrigation.*

No. 278. ORDER THEREON, 13th September 1875, No. 2,622.

IRRIGATION, No. 29.

RECORDED, a special report should be submitted on the state of the Thamarapauk Anicut, Madras Water Works, after the approaching monsoon.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

To the Superintending Engineer, Chingleput.
" Chief Engineer for Irrigation.

Ed. S. T. Austin.
Spare Copies

No. 2 Range Office
No. 1375 27th August 1875.

From
The Executive Engineer
No. 2 Range Chingleput District.

To
The Superintending Engineer
Chingleput.

Sir,

I have the honor to report that on further examination I have ascertained that most of the foundations of the Tamarapakam Anicut lying between the present breach now under repair and the late extension are in a very bad state, as far as I can ascertain quite as bad as those of the portion we are now repairing.

2. There was no reason whatever, until I found out how bad those at the breach were, to suspect any others, but on my second report I suggested the possibility of all the old foundations being rotten and I sounded to the north and extended my long bund to a place where we hit upon a sound well, thinking this was the end

of the evil.

3. I on receipt of the Chief Engineer's Memo again made an attempt at examining the foundations to the north of this sound portion and the borer showed foundations unsound. I then again extended my prog round the northern extremity of which now abuts on the southern end of the extension the whole of which is as far as can be ascertained perfectly sound.

4. The whole space about 250 in length within the prog round with the exception of a small break to the north of the original enclosure is unsound, in fact unsound is not strong enough a word, it is rotten, the foundations apprently having never set in any shape or way and there is no doubt whatever that they have been in this condition from the very commencement, their displacement increasing with every high fresh until the last tore up some of the superstructure and discovered the evil.

5. At first I was in hopes that being on the clay, the part now discovered rotten to the north was not much injured but having extended my prog round I found exactly the same state of things here as in the original breach, though the body wall exhibits no signs of a crack and hangs together bridging over the rottenness consisting as before of well cubes of concrete never set, it is impossible without risk of burying the coolies to get at the inner row of wells for we cannot commence dismantling the body wall and a press now as it is so late in the season, so I have ordered the Superviser to bale out and get out stuff from the front as far as possible & earth in concrete as far under the mass of masonry as he can without danger and fill in the whole space in front with concrete.

6. Nothing further can be done this season and I think such a treatment will at any rate last for one years freshes I have great faith in the concrete used at it hardens like rock in 36 hours and increases in hardness with time, being immersed directly it is mixed and kept under water. With a mass of solid matter

M.R.O. 1—4,002—16 9-48.

No 2222

Forwarded for the information of the Chief Engineer for Irrigation in continuation of Superintending Engineers No 1989 dated 21st ultimo.

Lieut Col R.E.
Supg Engr Chuzlepuri

Chief Supg Engr Office
Camp Chemberumbedtiyan
Dated 2nd & Despd 3rd
Septr 1875

No 1626

Submitted further information of Government in continuation of previous reports - The Executive Engineers proceedings further temporary security of the unsound foundations are judicious and there is no time this season for restoring the foundations as has been done where the damage happened during the floods of 1874.

8 Sept. 1875

Lt Cornelius Nobbs R.E.
Chief Engineer for Irrigation

that stone 10 feet or more wide and from 4 to 6 feet deep all along the front of the head work with a further protection of a rough stone apron 7 yards wide along the face of the body wall I do not think we shall have much to fear from the heaviest floods. From there is no time for the sinking of wells in front nor could we work them for the account of the clay and there is no time for strengthening the superstructure to admit of fresh relief pond sluices being laid so I cannot think of any other plan and trust it will meet with your approval. The spring head sluices have been damaged the other day in a slight freshet, in case are doing our best to have them built the original repairs so as to get the body wall rebuilt before heavier freshets take place.

I have &c &c
Reginald A. Lawrence Colby R.E.
Executive Engineer

Che 5937.

Govt. of 1878 Edition.

PUBLIC WORKS.

To Superintending Engineer Chingleput

Dated

Rec'd

Rec'd

Answered 13 Sept. 1875

No. 227-278

Thamaraipakkam Anicut, Chingleput Dt. - Endorsement of the Chief Engr. for Irrign. on letter from the Supdt. Engr. Chingleput forwarding a report from the Assistant Engr. in charge on the foundations of the recorded with remarks -

From W. R. Doveton Esq
The Supt. Engineer
Chingleput Dt.
No. 5937
Thro'
The Chief Engineer
for Irrigation.

Dated 2nd
Despd 3rd } Septr 1875
Rec'd 4th }
No. 1026.
No. 153 Sept. No. 2222

Forwards copy of letter from the Executive Engineer Mount Road reporting on the state of foundations of the Thamaraipakkam Anicut.

Recd 2022

Submits report of Assistt. Engr. in charge on the foundations of the Thamaraipakkam Anicut - which he considers unsafe - and recommends the construction of a new anicut across the Palar at Vellapuram - about 1½ miles above the present anicut - at a cost of Rs. 2,00,000 - and requests sanction to the preparation of a project & estimate for the same -

Recd 7/9/75

No 2777/8
Cir. 10-9-75 Rte 13-9-75
L. Sheet 4 Serls

Copying Clerk
Cuddapah Division

Recd 30-9-75

Examined