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MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 187 Press / Mis.

360-61

Dated 17. 1 1870.

Not to be folded or roughly handled

No 360. Read the following letter from the Officiating Superintending Engineer, 8th Division, to the Secretary to Government, Public Works Department, dated Palamcottah, 4th December 1869, No 2,08 ; —

I HAVE the honour to report again, with much concern, that the bridge over the Amaravutty river on Road No XIII at the boundary of the Madura and Coimbatore Districts is a total wreck All the arches fell down on the 16th November from the same storm of rain on the hills that caused the destruction of the Shunmooganadi Bridge, ten miles off, as reported by me on the 23rd ultimo, No 2,091 The water rose to the level of the blocking course, overflowing the road on both sides, and forming breaches in the roadway.

2 On my way down from Madura, I passed the Satoor Bridge, which remains in the same condition as already reported, namely, six arches fallen out of the seventeen there being six left on the north, and five on the south of the gap The piers are left partially standing, but all displaced. The debris of the arches choking the waterway, a large island of sand has been formed above, and this was high and dry, when a good deal of water was still coming down on either side The first movement appears to me to have been in one of the piers of the centre arch sinking in front the bed of the river there is deep sand, and the scour must have acted on this, causing the cut-water to go down, and the arch to separate longitudinally. The river had risen to its greatest height in a short time When there was real alarm at the aspect of the flood, Supervisor Vyapuri Pillai informs me he tried fruitlessly to induce people to go over from the village, which is on the north bank, to make a cut in the approach, but the offer of a reward did not overcome their fears, and no one would venture over the bridge The river is confined on the left bank by an embankment running up for half a mile this protects the travellers' bungalow and the streets behind, but there being no spread for the water, until backed up round the upper end of the embankment, the flood extended over the right bank, and forced its way through the lower part of the approach There is a great breach there, 200 yards in length, the road being washed away to the level of the fields. It was fortunate that the embankment had been repaired only the previous month, for the flood rose nearly to the top, and when the water got round at the back of Satoor, where it crossed the road again, the people fled away to a village two miles off to the north. As the only resource towards preserving the remainder of the bridge, I directed the Supervisor to throw up rough stone buttresses as supports to the piers at the edges of the gap.

3 The main southern road itself (No. II) is seriously breached, about three miles to the north of Satoor, also a short distance to the south of Khytar, where a stream called the Oopaur overflowed the country, and again opposite Shadi Khan's Choultry, five miles from Palamcottah. It is further reported that the same road is extensively breached in the five miles next to the Travancore boundary

4. At Palamcottah three more arches of the Sulochenum Bridge gave way, following the fall of the fifth arch on the 20th ; the third and fourth arches from the right bank and the sixth came down during the night of the 23rd, a portion of the haunch being left on each side, but the remaining arches then appeared to be sound with the exception of very faint cracks, resulting from the shock to the whole structure. The piers and arches present a great obstruction to the stream, which

is diverted principally under the second arch, and has scoured a hole on the lower side Rough stone has been brought in to form buttresses for the support of the piers in the gap, and to arrest the action of the water below the second arch Cuts are being made through the broken masonry in the bed to allow more water to pass down the former deep channel This reduces the head of water above, and facilitates the passage of traffic A short distance below there is a crossing that is passable for carts when the river is low. a short cut from the high road, one mile north from the bridge, gives access to this crossing, and the Collector proposes to expend a small sum from Local Funds to make this branch road available for the traffic from the north

To day, however, there is a new crack in the second arch. A deep hole is found in front of the outer pier, and I fear there is now no chance of saving the two arches on the right bank The workmen are taken away from the rough-stone work, as there is danger of the arch giving way at any moment.

5 Lieutenant Shepherd reports of the Sreevaiguntum works that the river bund was breached in several places, and the flood-waters flowing along parallel to each bank did considerable damage to the northern main channel as far as Veral and to the new Ahtoor Channel on the south bank The amount of damage is roughly estimated at Rupees 25,000. Portions of the incomplete tank bunds have been breached and other channels in progress damaged, while some temporary sheds near the river have been swept down The total loss on the project is calculated at about Rupees 35,000, estimates in detail being under preparation.

6 The Canadien, Kodagan, Palien, and Tinnevelly Channels, which start from anicuts across the Tambrapoorney, and also the Malakal and Keelakal Channels from the Murdoor Anicut (the lowest) were most extensively breached. Many parts of the banks were carried away, and the water thus escaped back into the river. The great object was to lose as little time as possible to get the water along the channels in any way, and so save the peshanum crop. The Revenue Officers have acted most energetically, and joined heartily in doing their utmost, both of themselves, and in assisting this department, work has been done so that water is now going down the channels to a certain extent if we have a further break of fine weather, the channel banks will be secured; but it will be most disastrous if another flood comes down, such as might ordinarily be expected at this season.

7. In the event of another storm coming, or, rather, if a burst of monsoon passes Madras from the N. E. taking the direction of Negapatam and Tanjore, it might prove of service to warn us here by telegraph. The Collector being informed would communicate to the officers along the channels, and the weakest points would be strengthened at once and watched, so as possibly to avert more loss.

8. A portion of the body of the Canadien Anicut has been washed out Major Payne had offered his services for general duty, and has gone to this anicut, also to relieve the Supervisor of the 2nd Range of the Ambasamudrum Talook. Assistant Engineer Mr. Grant is further directed to give his aid in the Nanguneri Talook, where the tanks and channels are generally breached in all quarters.

Proceedings of the Madras Government, Public Works Department,
17th January 1870.

The Sub-Collector has been advancing the necessary funds and getting the breaches stopped in the Ambasamudrum and Nanguneri Talooks, and Mr. Davies, Assistant Collector, has rendered aid at formidable breaches in the Palien Channel At a bend in this channel the Putchyaur river crosses a caingulah into the Tambrapoorney the bank was badly breached at both wings, and, the extensive escape just below becoming blocked, an immense deposit of sand is formed completely obliterating the channel A temporary cut has been made now through this, and the small stream of the Putchyaur is taken off to supply the Palien Channel below.

9. A sum of Rupees 50,000 having been authorized for disbursement by telegram from the Revenue Secretary, the Collector has arranged with me in which quarters to distribute the money, the principal allotments being to the Ambasamudrum, Tinnevelly, Tenkarai, and Nanguneri Talooks.

10 The Murdoor Keelakal Channel is furnished with a head-sluice, the only one along the course of the river, but this was of no avail, the flood breached the bank above the wing-wall, and flowed completely over all the masonry.

11. It is very difficult to estimate the amount of money really required on emergency. Many estimates have been made, but from the lists of breached works many more have to come. The Collector is comparing the accounts received from his officers and those furnished in this department, and will notify shortly again the amount of a further demand I anticipate another grant of half a lac must follow very soon, to be advanced in the Revenue Department, and I have no credit left in this department

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No 361. ORDER THEREON, 17th January 1870, No. 187.

IRRIGATION, No. 14

RECORDED with reference to Proceedings in the Revenue Department under date 26th November 1869, No 3,058-A, and to G O in the Public Works Department, No 3,879, dated 10th December 1869

(True Extract)

Colonel, R E,
Secretary to Government.

To the Superintending Engineer, 8th Division
,, Revenue Department
,,

Ex1 A S Rodgers.

Palamcottah

No. 2083 — 14th December 1869

From,

Captain H. L. Prendergast R.E.

Offg. Superintending Engineer

8th Division

To,

Colonel C. A. Orr R.E.

Secretary to Government P.W.

Madras

Sir,

I have the honor to report, again with much concern, that the bridge over the Amaravutty river on road No. XIII at the boundary of the Madura and Coimbatore Districts is a total wreck all the arches fell down on the 16th November 11 from the same storm of rain on the hills, that caused the destruction of the Shunmoogunadi bridge 10 miles off, as reported by me on the 23rd Ultimo No. 2001. The water rose to the level of the blocking course over flowing

flowing the roads on both sides, and forming breaches in the roads way:

2 On my way down from Madura I passed the Sathoor bridge, which remains in the same condition as already reported. Eight breaches fallen out of the 19. there being 6 left on the North, and 5 on the South of the gap. The piers are left partially standing, but all displaced. The debris of the arches choking the water-way, a large island of sand has been formed above. At this was high & dry, where a good deal of water was still coming down on either side. The first movement appears to me to have been in one of the piers of the centre arch sinking in front. The bed of the river there, is deep sand, and the scour must have acted on this, causing the end water to go down, and the arch to separate longitudinally. The river had risen to its greatest height in a short time when there was real alarm at the aspect of the flood, Supervisor Vyapuri Pillai informs me, he tried fruitlessly to induce people to go over from the village which is on the North bank, to make an exit in the approach; but the offer of a reward did not overcome their fears, and no one would venture over the bridge. The river is confined on the left bank, by an embankment, running up for half a mile. this protects the Travellers Bungalow and the street behind; but there being no spread for the water, until backed up round the upper end of the embankment, the flood extended over the right bank, and forced its way through the lower part of the approach. There is a great breach there, 200 yards in length, the road being washed away to the level of the fields. It was fortunate that the embankment had been repaired only the previous month. for the flood rose nearly to the top

top. and when the water got round at the back of Saloor, where it crossed the road again, the people fled away to a village 2 miles off to the North-East the only resource, towards preserving the remainder of the bridge, & directed the Supervisor to throw up rough stone as buttresses as supports to the piers at the edges of the gap.

3 The main Southern Road itself (Sh. II.) is seriously breached, about 3 miles to the north of Saloor; also a short distance to the south of Khyla, where a stream called the Dopani overflowed the country and again opposite Shade Khan's choultry, 5 miles from Palamcottah. It is further reported that the same road is extensively breached on the 5 miles, next to the Travancore boundary.

4 At Palamcottah 3 more arches of the Sulochenamni bridge gave way, following the fall of the 5th arch on the 20th. the 3rd & 4th arches from the right bank, & the 6th came down during the night of the 23rd. a portion of the haunch being left on each side, but the remaining arches then appear to be sound with the exception of very faint cracks, resulting from the shock to the whole structure. The piers and arches present a great obstruction to the stream, which is diverted principally under the 2nd arch, & has scoured a hole on the lower side. Rough stone has been brought in, to form buttresses for the support of the piers in the gap and to arrest the action of the water, below the 2nd arch. Cuts are being made through the broken masonry in the bed, to allow more water to pass down the former deep channel, this reduces the heads of water above, & facilitates the passage of traffic. A short distance below, there is a crossing that is passable for carts, when the river is low. a short cut from the high road 1 mile North from the bridge gives access to this crossing; & the Collector proposes to expend a small sum from Local Funds, to make this branch road available

the

available for the traffic from the north.

To day however, there is an breakwater in the second arch. a deep hole is found in front of the outer pier. Vol four, there is now no chance of saving the 2 arches on the right bank. The workmen are taken away from the rough stone work, as there is danger of the arch giving way at any moment.

5 Lieut. Shepherd reports of the Strengthening works, that the river bunds were breached in several places. and the flood waters flowing along parallel to each bank, did considerable damages to the Northern main channels, as far as Gorai, and to the new Ahloot channel on the south bank. The amount of damages is roughly estimated at Rs 25000

Portions

Portions of the encompletes tanks bunds have been breached: and other channels in progress, damaged, estimated as in progress who's near the river banks have been swept down. The total loss on the Project is calculated at about Rs 35000: estimates on detail being under preparation.

6 Upper Circular, Rodriguez, Palmer and Wemyss Channels, which start from points across the Damodar and are the Mallabad and Bankul Channels from the Mundeswari bund (the worst, were most extensively breached: many parts of the banks were carried away and the waters thus escaped back into the river. Great efforts appear to be made as little time as possible, to set the waters along the Channels, in any way

and

... and so gravely threatening ...
The Revenue Officers have acted most energetically and joined with the [illegible] doing their utmost both of themselves and in assisting the Department work has been done so that water is now going down the Channels to a certain extent; after day a further break of fine weather, the Channel banks will be secured: but it will be most disastrous, if another flood comes down such as might ordinarily be expected at this season.

7. In the event of another flood coming; or rather of a burst or monsoon rains. Madras from the N.E. taking the direction of Negapatam

Negapatam and Dangerous it might prove of service to warn us here by Telegraph. The Collector being informed would communicate to the Officers along the Channels, and the **weakest** points would be strengthened at once and watched, so as possibly
8 to avert more loss. A portion of the body of the Canadian Anicut has been washed out. Major Farnes had offered his services for general duty, and has gone to the Anicut, also to relieve the Supervisor of the 2nd Range, of the Ambasamudram taluq. Assistant Engineer Mr Grant, is further directed to give his aid in the Nanguneri taluq: where the tanks and Channels are generally breached.

breaches in all quarters.

The Sub Collector has been advancing the necessary funds, and assisting the breaches stopped in the Ambacamedre and Sangamuwa tanks: and Mr Chaves, Assistant Collector, has rendered aid at formidable breaches in the Yatawa Channel at a bend in this Channel, the Puttalam river, Cokkes a Cadjan hut into the Dambaseeny: the bank was badly breached at both ends, and the extensive excavation just below becoming blocked, an immense deposit of sand is formed, Completely obliterating the Channel - a temporary Cut has been made and through this and the small stream of the Nichgame

9 Nichgame is taken off, by the Yatawa Channel below. A sum of Rs 5000 having been authorized for disbursement on Vellaram from the Revenue Treasury; the Collector has drawn a draft on it, in which quarters the disbursement thereof is subjected, Ambacamedre, Wanneddy, Kenaraj and Nallawa tanks

10 The Murdeer Kadakarai Channel is furnished with a head sluice, the embankment along the course of the river; but this was of no avail; the flood breached the bank above the upper wall, and flowed Completely over all the masonry

11 It is very difficult to estimate

the

the amount of money recd for remun-
erative employment, many estimates have
been made but from the data of
preceding years, many more cases
to Cover. Mr Collector to Confirm
the accounts received from his Cpers
and those furnished on the 11th inst
= ments and write respectg the
again the amount of a further demand
which must be made upon
to be charged in the Revenue
Department; and shew no
Credit left on his Department.

I have &c

Chas Prendergast Capt Comdt &c.

Officiating Engineer
St Divisions

P. W. 1869 Dept
No. 2683
12 Dec 5-127.

From,

The Offg. Superintending
Engineer
8th Division

To

The Secretary to Government
P. W. Dept.
Madras

Dated 4th December 69
Recd: 8th " "

No. 187 - 17th January 1870

Reports further
on distribution by
floods in Trinomaly
Tank and Bridges

No. 187

Recorded with reference
to Proceedings in this Revenue
Department under date
26th November 1869. No.
3058 Ry, and Ego. Ry. Public
this Department No.
38 Rg dated 10th Dec/69.

Fort St. George
17th January 1870

To the Supdg Engr 8th Division
— Revenue Dept

Dept 19/1/70

e. 15th Dec 1869 - A 315

Govt. of Madras.

PUBLIC WORKS