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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	521	Press	<i>Original</i>
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Dated	24. 2	195	1875

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
24th February 1875.*

No. 567. Read the following endorsement of the Chief Engineer for Irrigation, dated Fort St. George, 30th January 1875, No. 133:—

From Major J. BEATTY, R.E., District Engineer, Godavery, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Dowlaishweram, 23rd January 1875, No. 3,289.

I HAVE the honor to forward, herewith, a report by the Executive Engineer, Eastern Delta Range, of an unfortunate accident by which the surplus weir in the 11th mile of the Mundapett Canal has become a total wreck, and its entire reconstruction will be indispensable.

1 Plan.
1 Copy of Report.

2. This surplus weir was about a mile above the Thapesweram lock, and was under the charge of the Lock Superintendent, who on the evening of the 6th instant reported the occurrence of a breach alongside the weir, and that its cast wings had fallen down. Captain Brockman, to whom the report was made, hastened to the spot after reducing the height of water in the Main Canal, and threw bunds across the head of the Mundapett Canal and across the breach at the weir. I have delayed writing you an account of the accident until I could inspect the place myself, and inquire more fully into the circumstances and the causes of it. I was absent from Dowlaishweram at the time it happened, did not hear of it until the breach had been closed, and have been prevented inspecting the place sooner by an engagement to meet the Collector at another part of the district.

3. This weir had been built about seven or eight years since, and neither it nor the banks in its vicinity had of late years given trouble, except the revetments and rough stone apron which required occasional repairs and repacking. It was believed to be perfectly safe, and fairly answering the purpose for which it was built. It had been minutely inspected by Mr. Larminie in August last, when about to prepare an estimate for fitting it with improved shutters and screw gearing, and it had been casually visited more recently both by Mr. Larminie and Captain Brockman. My own attention had never been specially drawn to it. But no amount of previous inspection would have availed anything in this case, which clearly resulted from the gross stupidity and negligence of the Lock Superintendent. The circumstances were as follows.

4. Wishing to allow the bed of the Tooliabaga to dry, in order that the earth-works in it might be commenced as early as possible, Captain Brockman wrote on the 19th December, to inform the Lock Superintendent that he was writing all discharge into the Tooliabaga from the 11th mile of the Mundapett Canal, that the weir there should be closed effectually.

5. The Superintendent misinterpreted this to mean that he was to close the Thapesweram Lock weir, and also throw a bund across the canal in the 11th mile. Being a careful though very stupid man, he closed the lock weir thoroughly with grass, etc., commenced discharging into the lower reach of the lock culverts, and

• On the 20th.

at the same* time wrote to the Range Accountant to know if he was really to bund the canal also, as that would stop all navigation, and there was a large traffic going on which should have notice to clear out of the canal.

6. The Accountant replied to him on the 26th, after consulting the Range Officer, that a bund was not required in the canal, but that the weir was to be kept closed.

7. The Superintendent wrote again on the 30th that, owing to the closure of the lock weir, many boats were sticking in the canal below the lock. By this letter Captain Brockman discovered that the wrong weir had been closed, and sent a special messenger to tell him to open the lock weir and close the surplus weir.

8. This messenger, one of the Medapad lock lascars, arrived at Thapesweram on the evening of the 5th about 5 o'clock, and the Superintendent states that he at once complied with the orders given him, raised the lock weir shutter 18 inches, and then closed the surplus weir.

9. So far his story may be true, but the rest of it is more than doubtful. He states that on the 6th he and two lascars were occupied the whole day, from early morning till dusk, stopping leakage through the 2 feet of shutters that he had put up at the surplus weir; that the depth of water on the sill of that weir remained the same throughout that day exactly 2 feet; that the banks near it did not leak at all; that he left the place about 6 P.M. and returned to the lock; also that he was first informed by some people travelling on a passenger boat, about 7 o'clock that evening, that there was a breach.

10. The probability is that neither he nor the lascars went near the place on the 6th; that leakage began soon after the surplus weir was closed; and that as it was not attended to this naturally resulted in a serious breach at the eastern end of the weir, which undermined the wings, causing them to give way, and the formation of two large cracks through the body wall and its foundations.

11. But whatever the Superintendent was doing on the 6th, his story that the water level remained stationary at the lock that day is most improbable. When I visited the lock after the breach had been closed and navigation resumed, I found 6' 3" on the lock upper sill, the lock culverts fully open, and 2½ feet passing over the lock weir; I consider it most unlikely that the water level which is said to have risen 1 inch on the upper sill between 6 A.M. on the 4th and 6 A.M. on the 5th, and 2 inches more by the morning of the 6th, was maintained at that level throughout the day discharging 18 inches at the lock weir.

12. All banks of black cotton soil in the delta, above ordinary high water-mark, are apt to become full of cracks in the dry weather, and there had been no rain to moisten these for about two months, so that common sense should have warned the Superintendent that some leakage must be expected when the water rose, and that this required watching. Probably a few cubic yards of earth thrown along the inner face of the bund at the leaky spot at first would have saved it.

SUBMITTED for the information of Government.

The District Engineer's investigation of the cause of the destruction of the surplus weir in the 11th mile of the Mundapetta Canal, Eastern Delta, Godavery, is full and complete. The water no doubt rose on the closing of the weir and

found its way through the dry soil behind the wing. Had this been noticed and attended to all risk of accident might have been obviated. It is presumed that it has been ascertained that Captain Brockman's written instructions of the 19th December were so translated as to make his intentions plain; if so, the Lock Superintendent is manifestly unfit for his post.

2. It may be remarked that lock culverts should never be used for discharging water unless under exceptional circumstances, and upon the written instructions of the Range Officer or Assistant Engineer in charge of a canal.

3. As the closing of the surplus weir with the supply then going down the canal was likely to cause a rise in the water level, it would have been desirable that the Lock Superintendent should have been warned to look to all points where danger was to be apprehended, but probably the lock weir would have sufficed to keep down the water to its normal full supply level had it been properly regulated.

4. The construction of a new weir must be at once undertaken.

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

No. 568.

ORDER THEREON, 24th February 1875, No. 521.

IRRIGATION, No. 46.

ORDERED to be recorded.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Godavery.

„ Chief Engineer for Irrigation.

„ Controller of Public Works Accounts.

Exd. W. J. Lewis.

Spare Copies

Encl. 1
No. 3289

District Engineer's Office
Dowlaiswaram 23rd Jan 4, 1878

From,

Major J. Beatty R.E.

District Engineer Godavery.

To,

Lieutenant Colonel J. Mullins R.E.

Chief Engineer for Irrigation.

Sir,

I have the honor to forward herewith
a report, by the Executive Engineer Eastern Delta
Range, of an unfortunate accident by which
the surplus weir in the 11th mile of the Mun-
dlaipetti canal has become a total wreck, and
its entire reconstruction will be indispensable.
This surplus weir was about a mile
above the Chapeswaram lock, and was under
the charge of the lock Superintendent, who, on
the evening of the 6th Instant reported the occur-
rence of a breach alongside the weir, and
that its east wings had fallen down. Capt.
Beckman, to whom the report was made,
hastened to the spot, after reducing the height

of

of water in the main canal, and threw
bunds across the head of the Mundapett canal,
and across the breach at the weir. I have
delayed writing you an account of the accident
until I could inspect the place myself, and
enquire more fully into the circumstances, and
the causes of it. I was absent from Dowlaish-
weram at the time it happened, did not
hear of it until the breach had been closed,
and have been prevented inspecting the place
sooner by an engagement to meet the Collector
at another part of the District.

3. This weir had been built about seven or
eight years since, and neither it nor the banks
in its vicinity had of late years given trouble
except the revetments and rough stone Apron which
required occasional repairs and repacking. It
was believed to be perfectly safe, and fairly
answering the purpose for which it was built.
It had been minutely inspected by Mr. Larmine
in August last, when about to prepare an esti-
mate for fitting it with improved shutters
and screw gearing, and it had been casually
visited more recently both by Mr. Larmine
and

and Captain Brockman. My own attention
had never been specially drawn to it. But no
amount of previous inspection would have avail-
ed anything in this case, which clearly resulted from
the gross stupidity and negligence of the Lock Super-
intendent. The circumstances were as follows:-
4. Wishing to allow the bed of the Tooliabaga
to dry up, so that the earthworks in it might
be commenced as early as possible, Captain Brock-
man wrote, on the 19th December, to inform the Lock
Superintendent that he wished to stop all dis-
charge into the Tooliabaga from the 11th mile of
the Mundapett Canal, and that the weir there
should be closed effectually.

5. The Superintendent misinterpreted this
to mean that he was to close the Shapésuweram
Lock weir, and also throw a bund across the
Canal in the 11th mile. Being a careful though
very stupid man, he closed the Lock weir thorough-
ly with grass &c, commenced discharging into
the lower reach by the lock culverts, and at
the same time wrote to the Range Accountant
to know if he was really to bund the canal,
also, so that would stop all navigation and
there

* On the 25th

there was a large traffic going on which should have notice to clear out of the canal.

6. The accountant replied to him on the 26th, after consulting the Range Officer, that a bund was not required in the canal, but that the weir was to be kept closed.

7. The Superintendent wrote again on the 30th that, owing to the closure of the lock weir many boats were sticking in the canal below the lock. By this letter Captain Brockman discovered that the wrong weir had been closed, and sent a special messenger to tell him to open the lock weir and close the surplus weir.

8. This messenger, one of the Medapad lock lascars, arrived at Thapessweram on the evening of the 5th about 5 O'clock, and the Superintendent states that he at once complied with the orders given him, raised the lock weir shutter 18 inches, and then closed the surplus weir.

9. So far his story may be true, but the rest of it is more than doubtful. He states that on the 6th he and two lascars were occupied the whole day from early morning till

till dusk stopping leakage through the two feet of shutters that he had put up at the surplus weir; that the depth of water on the sill of that weir remained the same throughout that day, exactly two feet; that the banks near it did not leak at all; that he left the place about 6 P.M. and returned to the lock; also that he was first informed by some people travelling on a passenger boat, about 7 O'clock that evening that there was a breach. 10. The probability is that neither he nor the lascars went near the place on the 6th, that leakage began soon after the surplus weir was closed, and that as it was not attended to, this naturally resulted in a serious breach at the eastern end of the weir, which undermined the wings causing them to give way, and the formation of two large cracks through the body wall and its foundations.

11. But whatever the Superintendent was doing on the 6th his story that the water level remained stationary at the lock that day is most improbable. When I visited the lock after the breach had been closed, and navigation resumed, I found 6' 3" on the lock upper sill, the lock culverts fully open, and 2½ feet passing over the lock weir; I consider it most

11 11
the unlikely that the water level, which is said to have
risen 1 inch on the upper sill between 6 A.M. on the
4th, and 6 A.M. on the 5th, and 2 inches more by the
morning of the 6th, was maintained at that level
throughout the 6th by discharging 18 inches at the
lock weir.

12. All our banks of black cotton soil in the
Delta, above ordinary high water mark, are apt to
become full of cracks in the dry weather, and there
had been no rain to moisten these for about two
months, so that common sense should have warned
the Superintendent that some leakage must be ex-
pected when the water rose, and that this required
watching. Probably a few cubic yards of earth
thrown along the inner face of the bund at the
leaky spot at first would have saved it.

I have the honor to be

Sir,

Your most obedient servant.

L. Beatty. Major R.E.
District Engineer Godavery.

... 133.
Submitted for the information of
Government.

The District Engineer's investiga-
tion of the cause of the destruction of
the surplus weir in the 11th mile of the
Mundapettah Canal, Eastern Delta
Godavery is full and complete. The
water no doubt rose on the closing
of the weir and found its way through
the dry soil behind the wing. Had
this been noticed and attended to all
risk of accident might have been
obviated. It is presumed that it has
been ascertained that Captain Brochmann's
written instructions of the 19th Decem-
ber were so translated as to make
his intentions plain. If so the Lock

Superintendent is manifestly unfit
for his post.

2. It may be remarked that
lock culverts should never be used

To A.E. Govt. No. 1337
30 Jan'y/35-

CH 204
The District Engineer
Godavery.

To The Chief Engineer
for irrigation.

Dated 23rd January 1875
Recd 30

CH 3289
Enclatures Two

P. M. 769/75
Reporting on the acci-
dent at the surplus
weir in the 11th mile
of Mundapettah Canal.

15

1. The first part of the document is a list of names and dates, which appears to be a record of some kind. The names are written in a cursive script, and the dates are in a more formal, printed style. The list is organized into columns, with names in the first column and dates in the second column.

2. The second part of the document is a series of handwritten notes or entries. These are written in a cursive script, similar to the names in the first part. The notes are organized into a list, with each entry starting with a number or letter. The handwriting is somewhat slanted and cursive, typical of the period.

3. The third part of the document is a series of handwritten notes or entries, similar to the second part. These are also written in a cursive script, and are organized into a list. The handwriting is consistent with the other parts of the document, suggesting it was written by the same person or in the same context.

4. The fourth part of the document is a series of handwritten notes or entries, similar to the previous parts. These are written in a cursive script, and are organized into a list. The handwriting is consistent with the other parts of the document, suggesting it was written by the same person or in the same context.

5. The fifth part of the document is a series of handwritten notes or entries, similar to the previous parts. These are written in a cursive script, and are organized into a list. The handwriting is consistent with the other parts of the document, suggesting it was written by the same person or in the same context.

30 January 1875

Chief Engineer for Irrigation

To
The Secretary to Government
P. W. D.

Jan 17

P. h. Dept.
Proceedings of the Madras Government
Read the following
From the Chief Engineer,
for Irrigation } (Mh. No. 133 d/30 Jan'y/75)

521

Ordered to be recorded:

by 2/2/75
M. H.

M. H.

To The Dist^l Engineer Godavery
" " Chief Eng^r for Irrigation & Tanks
" " Controller of P.W. Accounts.

Dec 25-2-75

Copy

J. M. 1875 Madras
No. 133
From the Chief Engineer
for Irrigation
To the Secretary to
Govt. P.W.D.
Dated 30 January
Revised 4 July 1875
1875
S. B. No. 521. 24-2-75

Disburse for information
Report of the Dist^l Engr
Godavery regarding the
construction of the supply
weir on the N. bank
of the Pundarikottah
canal Godavery Delta.

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L. A. 11/11/11
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769 ✓

Govt. of (1875) Madras.

PUBLIC WORKS.

To

The Dist. Engr.
Godavery

Dated

Recd.

Encl. /

G. L. Lebrun No. 521

Recd 567-568.

Mundapettah Canal
Eastern Delta - Godavery

Report of the destruction
of the surplus weir in
the 11th mile of the
Canal, recorded -