

(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. 1105

Press
Mis.

Dated 20-4-1871.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
20th April 1871.*

No. 272.

Under date 20th April 1871, No. 1,105.

CIVIL WORKS, No. 16.

THE Government have learnt from Mr. Robertson that, although the effect of the Cruz Milagre Gap in the spit of

sand which separates the Cochin backwater from the sea to the north of the harbour mouth does not appear to have been decidedly injurious to the entrance of the port of Cochin, it is yet, in his opinion, very desirable that an attempt should be made to close it at as early a period as possible. This he considers may probably be effected without much difficulty and at little expense if, by throwing out a groyne from the inner northern angle of the gap, the current, which is at present deflected by a promontory crowned by the ruins of an old fort on the opposite side of the backwater directly into the gap, be diverted so as to cause comparatively still-water in the opening. This would allow the natural action of the sea and the incoming tide to do spontaneously what could only be accomplished artificially at a great expenditure of labour and money.

2. Mr. Robertson is confident that if, by the means he suggests, the current through the gap be diminished, sand will be carried in so rapidly from seaward as speedily to close the breach, or at least so to diminish its depth as to make its final closure by manual labour easy; and he thinks a groyne of from 150 to 200 feet in length, thrown out somewhat as shown in the accompanying sketch, will effect the purpose desired.

3. The groyne need not be formed entirely of stone; but may be made of stakes, leaves or grass and clay, and may be strengthened if necessary with a certain quantity of loose stone. As the action of this groyne may be to set the current on to the opposite angle of the gap, it will probably be necessary to protect that point by a revetment of stakes and stones as shown in the sketch. The cost of these works will not be heavy and, as the Government are of opinion that advantage of the present season should be taken for their execution, His Excellency the Governor in Council resolves to authorize the Acting Superintending Engineer to put the construction of the groyne in hand at once from the allotment of Port Funds at his disposal for closing the gap, and directs that an estimate for special sanction be submitted with as little delay as possible.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Acting Superintending Engineer, 7th Division.
„ Controller of Public Works Accounts.
„ Marine Department.

Exd. S. T. Augustin.

1105

N
A
J.D.

decidedly injurious
to the entrance of the
port from the sea

The Government
have learnt from Mr.
Robertson that, although
the effect of the Cruz Milagre
gap in the spit of land
which separates the Cochin
Backwaters from the sea
to the north of the harbour
mouth does not appear to
have been so injurious as
has been supposed, it is
yet, in his opinion, very
desirable that an attempt
should be made to close
it ^{at} as early a period as

possible - This he considers
~~(cannot be done in the~~
~~manner suggested by~~
~~the Harbour Committee~~
~~by means of stone groynes,~~
but may probably be
effected without much
difficulty and at little
expense if, by throwing
out a groyne from the
inner northern angle of
the gap, the current, which
is at present deflected by a promontory caused
by the ruins of an old
fort on the opposite side
of the backwater directly
into the gap, be diverted
so as to cause compara-
tively still water in the

comit

opening. This would allow
the natural action of the sea
and the incoming tides to
do spontaneously what could
only be accomplished arti-
ficially at a great expendi-
ture of labour and money.

Mr. Robertson is con-
fident that if, by the means
he suggests, the current
through the gap be dimin-
ished, sand will be carried
in so rapidly from sea-
ward as speedily to close
the breach, or at least to
diminish its depth so to
make its final closure
by manual labour easy,
and he thinks a groyne

of from 150 to 200 feet in
length, thrown out some-
what as shown in the ac-
companying sketch, will effect the purpose desired.
(~~to all that is required~~.)

The groynes need not
be formed entirely of stones,
but may be made of stakes,
leaves or grass and clay,
and may be strengthened
if necessary with a certain
quantity of loose stone. ~~As the nature of this groyne~~
the cost, ^{of these works} will not be heavy ~~heavy to be done the same~~
and, as the Government ~~are to the opposite bank of~~
are of opinion that advan- ~~the gap, is well protected,~~
tages of the present season ~~keeping to position and~~
should be taken for their ~~point of a continuation of~~
execution of ~~the work~~, ~~stakes and stones as~~
His Excellency the Governor ~~shown in the sketch~~.

the Council resolves to
authorize the Acting Super-
intendent Engineer to put the con-
struction of the groyne in
hand at once from the
allotment of Part I funds
at his disposal for closing
the gap, and directs that
an estimate for special
sanction be submitted
with as little delay as
possible.

To
The A. S. Eng-
" Controller
" Marine Dept
" Marine Dept
Recd 21/4/36

CP

PUBLICATIONS

2. The Ag. Spirituality Page
of the Christian

For the Proc 21st / 1826 /

Figure 1

① 1994年12月12日

100-112

My father's father, Andrew
James, was a ^{wealthy} ~~wealthy~~ ^{man} who
lived in the city of New York
and was a member of the New York
Academy of Arts and Sciences.
He was a very successful
business man and was
one of the founders of the
American Bank Note Company.
He was also a member of the
New York Stock Exchange.