

(1) Number of pages _____

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MADRAS RECORD OFFICE.**Government of Madras.***Public works* **DEPARTMENT.**

G.O. No. 1114	Press Mis.
288-90	
Dated 20 . 4	1871 .

Not to be folded or roughly handled

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

No. 288. Read the following Endorsement of the Marine Department, dated 6th February 1871 :—

From the Master Attendant, Administrative Department, Madras, to the Chief Secretary to Government, Marine Department, dated Madras, 31st January 1871, No. 766.

I HAVE the honour to address Government on a subject* which, until my return to India, I have had no opportunity of bringing forward, and I now

* Colonel Carpendale's Cochin Report, dated 19th May 1870. do so no less for the information of Government than for my own justification.

2. Before going fully into the matter, I beg leave respectfully to point out to Government that the Head of the Department of Public Works in this Presidency, through whose hands all the report to which I shall have occasion to refer must have passed, has never (as I understand) visited the port of Cochin, and cannot therefore of his own knowledge vouch for facts, but must depend upon charts and reports received from his subordinate late in charge of the works there; while I have, from frequent visits, become familiar with the features and peculiarities of that part of the coast, and have had my attention specially directed to the inroads made by the sea and to the value of the measures taken for the preservation of the port.

3. With reference to paragraph 3 of the order of Government, and before proceeding to defend myself from the charge therein brought against me, I beg leave most respectfully to observe that I am not altogether ignorant of the law of evidence, or inexperienced in taking it down, and that it is hardly probable I should have so far forgotten the practice of years as to have conducted my enquiries at Cochin in so careless and inefficient a manner as would appear from the report of Colonel Carpendale, a gentleman in whose honesty of purpose and desire to be impartial, I wish to record my implicit confidence, while I am under the necessity of taking exception at the data on which that report is framed.

4. I have also, with reference to the last sentence in the same paragraph, to refer Government to paragraph 18 of my letter dated 18th January 1870,* and respectfully to ask whether, being aware

* No. 234. of the peculiarities of the person in question, and of his practice as regards the amenities of life, I am open to censure for not having voluntarily, without the orders of Government, placed myself in communication with him. In the orders of Government dated 14th December 1869, No. 318, approving of my intentions of visiting Cape Comorin and the ports of Calicut and Cochin, I was placed in communication with Captain H. L. Prendergast, R.E., but received no orders of a similar nature regarding the Assistant Engineer at Cochin.

5. I now proceed with Colonel Carpendale's report.

6. The only evidence I can find regarding the supposed breach on the Vypeen side is that of Mr. Eppinger, who states that he one day, at LOW WATER, saw a gang of coolies driving in a row of piles with hand rams, and noticed that the work was for the purpose of keeping out the sea, which *had been* washing over, and making

a partial breach, but could see no water pass over while he was there, and on this hearsay evidence, which would have been inadmissible in a Court of Law, rests the sole proof that there ever had been a breach.* Why were none of the coolies employed in driving in stakes, or the Overseer in charge of them, examined?

* NOTE.—It must be noted that the Assistant Engineer in his telegram termed it a "partial breach," and in his letter "a breach."
(a) NOTE.—There is no such thing as a "partial breach," by which I presume he means an incipient breach.

7. On the other hand Nanapoy and Dasapoy, residents on the spot, give directly contrary evidence, as does Captain Castor, Master Attendant.

8. I beg leave to refer to my report on this point, in which it appears that I assembled the villagers residing on the spot,* who all gave the same testimony as the two witnesses quoted above, and it seems unaccountable to me that, so much trustworthy evidence being available, it was not taken advantage of by Colonel Carpendale.

* NOTE.—There are 40 male residents.

9. I may here observe that these villagers had no interest whatever in denying the existence of a breach, but might rather be supposed desirous of founding thereon some claim for compensation for loss of property—(the canal cut by a Government official being the real danger). I firmly believe the above to be the true state of the case, the whole of the evidence being in favour of it.

10. The wording of Colonel Carpendale's Report in this paragraph* seems to me to be contradictory and unsupported.

* No. IV.

He says that the sea encroached upon the shore, topped the bank, and washed it away to some extent* into the boat canal. Doubtless during high tides the sea encroaches in one sense of the word, i.e., tops the bank at many places along the coast on the Vypeen side, but it does not follow that any breach is made thereby.* The very

* Where is the evidence?

NOTE.—The loose sand which had been thrown up out of the canal was, I have no doubt, partly washed back by the high spring tides into the canal, an effect more akin to the stopping of a breach than the creating of one.

* Vide latter part of Sheamoo's evidence.

same thing may be observed on this coast. I have on several occasions, during high spring tides, seen the wash of the sea top over the beach into the Adyar, but no breach was the result. It is the normal action of the sea during spring tides, and is not necessarily attended with any damage whatever.

11. I will now endeavour to explain what I conceive actually took place.

12. In Colonel Carpendale's Report it is clearly shown, on the evidence taken by him, that the exact spot where the damage was anticipated is that specified in paragraph 23 of my Report quoted in the margin. This is the place through which the Assistant Engineer, instead of laying down the lines of light rail recommended by the Harbour Committee and approved of by Government, opened a canal. I reported on this canal in my

Extract from paragraph 23 of my Report, dated 14th March 1870, No. 1,221.

"I inspected this canal and found that it had been carried through the strip of land to within less than 40 feet of the ocean wave. My remark on the spot was 'here is a breach made easy.'"

letter already referred to, but no notice has been taken of an operation which has had

the result of rendering what was before the safest part of the island, now the most vulnerable point along the line of coast. It is to be noted that in no communication, either by telegram or letter regarding the alleged breach, has the Assistant Engineer in charge mentioned this canal, an omission which, I have no doubt, led Government to believe that the breach was one into the backwater, which would have been a serious calamity, the width of the island being there about 580 feet.

13. As I have already said, any real encroachment* of the sea would have broken through this narrow strip of land between the sea and the canal and carried everything before it. This could

* NOTE.—There was no encroachment.

hardly have been arrested at a cost not exceeding Rupees 60.

14. I now turn to the witnesses of the alleged closing of the channel, as reported by the Assistant Engineer in charge, on whose testimony Colonel Carpendale seems implicitly to rely:—

No. 1. Mr. Platel, Sub-Magistrate of Cochin.

„ 2. Tummay, Ferry Boat Contractor.

„ 3. Mr. Lafrenaz, Manager of Messrs. Aspinwall and Co.

„ 4. M. Jules Reynaud, Merchant.

„ 5. Sheamoo, a Lascar.

These I shall deal with in detail.

15. Nos. 1, 2, 4, and 5 say nothing relative to the state of the tide, which omission renders their evidence entirely useless. No. 3 is, as it happens, a witness on the other side, for he distinctly states that the sand bank was dry at low water, and that one could walk along the embankment on to the sand bank, and this for two or three days.

16. I may here observe that the rise and fall of the tide at Cochin, during spring tides, is 3 feet,* and that a

* By Captain Moresly, I. N., 3½ feet.

„ Lieutenant Sweeny, I. N., 3 feet 3 inches.

„ „ Taylor, I. N., 3 feet.

channel, which is dry at low water, may at high water or half flood be deep enough for the passage of good sized boats.

17. I do not for a moment suppose that His Excellency the Governor or his Council can have time to go into the details of departmental statistics and controversies thereon, such as the foregoing, yet I should think it not beyond the province of the Head of the Department, who lays these papers before Government, to point out a grave omission in the evidence, an omission of such vital importance in the ventilation of the subject at issue, as to nullify the testimony altogether. Again, looking at the foregoing evidence, it is to be observed that, among the numbers of persons who must have been employed by the Assistant Engineer, only one has been cited as a witness, and that his evidence in regard to the closing of this channel is useless.

18. Let me draw attention to the evidence on the other side:—

No. 1. Captain Castor, Master Attendant and Conservator of the Port of Cochin.

„ 2. J. B. Farquhar, Foreman Carpenter, resident at Cochin.

„ 3. Mr. Poneguzen, Master Ship-builder, constantly on the Vypeen side.

„ 4. Mr. E. Pinto, Junior Pilot, Cochin.

19. It will be observed that these witnesses are all thoroughly conversant with the subject. One being a resident and the others constant frequenters of the spot, whereas Messrs. Platel and Reynaud cannot be supposed, from the nature of their avocations, to be conversant with the subject, or to have had the same opportunities of arriving at a correct conclusion. I record in the margin a deposition of the Senior Pilot, Cochin, the very best witness available, next to Captain Castor, but whose evidence does not appear to have been taken by Colonel Carpendale.

"I have been the Senior Government Pilot at this Port from September 1864 to date. I have always known the boat channel round Vypren Point to exist. On no occasion was it ever stopped up so as to prevent boats going through. I am in the habit of going through the boat channel three and four times a week and returning through when I go to the ships in the ordinary course of my duties. I was in the boat with Mr. Dalrymple when we passed through the boat channel during his visit in February last. I took the soundings and measured the distances showing the breadth, which I gave to Captain Castor, who was then Master Attendant of Cochin. I remember when Mr. O'Shaughnessy was throwing a groyne of sand bags and ballast stones to stop the channel, but it was never stopped so as to prevent boats from going through."

"Cochin, (Signed) C. MEYER,
"10th Nov. 1870. "Senior Govt. Pilot."
NOTE.—I have rejected the evidence of Mr. Rhode and Mr. Francis, *pro* and *con*, which, as far as the channel is concerned, is no evidence whatever.

that all he meant was that he had only closed up a channel between a suddenly formed shoal, which was then "the shoal or foreshore," within a convenient distance of his sand bag operations, and not "the other shoal, the long existing and still discernable one, which runs north and south."

The groyne marked 9-A is so far as it has been formed almost entirely of brushwood and sand bags. It was thrown across a deep tidal channel that ran close to the shore, and which was doing much injury; the tides have filled up the channel on both sides of the groyne, and a sand bank which extends far out to sea (a) is now connected with the main land.

(a) NOTE.—By Map No. 1 the outer end of this shoal is distant from the shore about one-sixth of a mile.

21. I record in the margin, in full, a description of this identical operation, drawn up by the Assistant Engineer and forwarded to the Head of his Department along with the maps in September 1869, and leave it to others to reconcile these differences.

22. There are other grave discrepancies which call for explanation. In the maps furnished for inspection I find, according to Colonel Carpendale's statement, in paragraph 111, that in the chart (or map) of the Assistant Engineer's "original Survey" no sand bank is laid down off the ballast groyne. In his "fair plan" (as it is termed) a sand bank appears connected with the said groyne, but is an isolated sand bank and not connected with "a sand bank which extends far out to sea," as stated in his Report as already quoted.

23. On the other hand all the witnesses conversant with the subject distinctly state that no such passage was ever closed, and my own impression is this, founded on the evidence on both sides, that the Assistant Engineer reported it prematurely

as closed, and not having had the moral courage to acknowledge his failure and waste of money has allowed the Government to suppose that the channel

* No. 1,221.

was closed, until my report of 14th March 1870* went in, giving the actual measurement of the breadth of the channel then existing and which had been reported closed five months before.

24. It is also remarkable that, in support of this "newly formed sand bank" theory, Sweeny's Chart of 1852 is selected, instead of the latest survey by Lieutenant Taylor, I. N., of 1858, which ignores the existence of such a sand bank.

25. In paragraph 5, Colonel Carpendale, premising that he forbears giving any opinion regarding certain statements in my report, proceeds forthwith to comment upon them. In the same paragraph he states that groyne No. 9-A, which is constructed of stakes, latties, sand bags, and small stones, has well answered the purpose for which it was designed, but goes on to recommend that it be strengthened by the addition of large quantities of stone of good size to enable it to withstand the coming south-west monsoon. Can it be said that a work has well answered the purpose for which it was intended when, to save it from destruction during the south-west monsoon, it must be remodelled and rebuilt.*

* NOTE.—On the principle originally recommended by the Harbour Committee and approved of by Government.

26. In the same paragraph he touches on the "one wooden groyne only constructed,"* and goes on to state that, though it does not answer the purpose for which it was intended, it presented to him "a tolerably uninjured appearance." In answer to this I quote the Assistant Engineer's own description of it† when it was built, and as when Colonel Carpendale saw it only the piles (and not all of them) were left standing; I leave it to Government to decide whether it may or may not be justly termed a wreck.

* NOTE.—The Cochin people know that there were other experimental works which, to quote a report I received, "were swept away as might have been foreseen long before Colonel Carpendale visited Cochin."

† "The groyne marked 9-B" is a wooden groyne. It is formed of a double row of piles, sheet planking, and land ties. The piles are driven 6 feet into the sand by a small pile driver made up for the occasion; they are 10 feet apart in the direction of the groyne and 3 inches apart transversely; the planking was driven down between the piles, which were braced tight on the planks and secured by ties and wooden keys."

27. Colonel Carpendale goes on to pass remarks on the Vypeen main groyne, which I quote in full in the margin.

"Mr. Dalrymple, in paragraph 7 of his last letter, attributes the loss of certain land that had been reclaimed, and the houses being washed away, to the lowering of this groyne. I am not able positively to dispute this, but I cannot comprehend how the small quantity (a) of water that would pass over the groyne could wash away the newly formed beach."

(a) NOTE.—Why is it assumed to be a small quantity of water? In rough weather and high tides large quantities wash over it.

can wash away the newly formed beach gained by it. It is, however, a fact that

the date of the disappearance of the regained beach coincides with that of lowering the groyne, and allowing the sea to wash over it.

28. The lowering of that groyne by the subordinate in charge, after it had been approved of by the Harbour Committee, was, it seems to me, an unjustifiable act. No argument will ever convince me, or any one conversant with Marine engineering, that the efficiency of this groyne has not been thereby impaired.

29. I may here also remind Government that the Harbour Committee laid particular stress on the necessity of carrying out the main groyne, and after the

* In letters dated 6th March 1869.
23rd March „
8th April „
12th April „

† In letter dated 6th March 1869, No. 1,181.

‡ Colonel Farewell, Acting Superintending Engineer, now again in letter dated 6th October 1870, No. 358, strongly recommends, "as of the greatest immediate importance," the lengthening of this groyne.

members of the Committee were dispersed, repeated and urgent recommendations* were made to Government by the Head of the Marine Department, and concurred in by Major Shaw Stewart,† Royal Engineers, both members of the Committee, and notwithstanding these appeals and the orders of Government thereon, the work was stopped‡ in deference to the opinion of a subordinate in the Department of Public Works.

30. Colonel Carpendale winds up his report with groyne No. 8, stating that some of the stones were removed* and laid on the beach, but he cannot acquiesce in the opinion that it is destroyed altogether, or rendered inefficient as a groyne.

* By whose orders?

The foregoing remarks apply equally here.

31. It seems to me that, when the inner end of a groyne is removed so as to allow boats to pass through the opening between the outer, or remaining end, and the shore, and the tides to ebb and flow through it, that it ceases to be a groyne, and that, as a groyne, it is destroyed.

32. As Colonel Carpendale has volunteered opinions on these works, and made comments on my statements, why does he omit all mention of the canal cut through the Vypeen spit of land.

33. He remarks, in paragraph 6, on the "unseemly spectacle of two officers of Government reporting in contradictory terms on matters of fact." I beg most respectfully to ask whether Colonel Carpendale has not here gone beyond his instructions in criticising action taken by the Head of another department. Throughout my correspondence on Cochin affairs I have, to avoid personalities, refrained from mentioning the name of the Assistant Engineer in charge of the works, a wholesome rule in official correspondence, which, in the report under review, has not been observed.

34. The Assistant Engineer has, from time to time, led Government to suppose that all, or nearly all, the groynes laid down by the Marine Department were useless; that groynes Nos. 3, 4, 5, 6, had sunk at their heads; that the Vypeen main groyne was unnecessarily high; that others were totally "destroyed;" that the price paid for the stone procured from the quarries, 12 miles distant, was too high; that the contractors who supplied the stone sublet their contracts; that all his

own experimental works were successful. These assertions have been disproved,*

* In letters from Master Attendant, Madras, to Chief Secretary to Government, dated 18th January 1870, No. 234, in paragraphs 4, 6, 7, 8, 12, 14, 17, and 14th March 1870, No. 1,221, and depositions received from Cochin, refuting the charge of sub-letting contracts.

† Beresford Anderson, Esq., Chief Engineer, Madras Railway.
Major Shaw Stewart, R.E.
They have seen all the papers and entirely concur with me.

and I leave it to Government to decide whether or not they were "misrepresentations." Before closing this review I beg leave to inform His Excellency the Governor in Council that I do not stand alone in the opinions I maintain, those of my colleagues† on the Harbour Committee are the same as mine.

35. In conclusion, while adhering to my report, I trust that in refuting the charges of inaccuracy and carelessness, grave charges against the Head of a Department, I have not overstepped the latitude allowed an accused person when defending himself.

TRANSFERRED to the Public Works Department.

(Signed) W. HUDLESTON,
Secretary to Government.

No. 289 & 290. ORDER THEREON, 20th April 1871, No. 1,114.

CIVIL WORKS, No. 18.

In this letter the Master Attendant at Madras submits explanations with reference to the Proceedings of

Government, No. 1,724, dated 19th July 1870, in reviewing Colonel Carpendale's report of the result of his inquiries into certain discrepancies between the statements made by Mr. O'Shaughnessy of the result of his operations for arresting the inroads of the sea at Cochin, and those laid before Government by Mr. Dalrymple on the same subject.

2. On a reconsideration of the matter in the fuller light now thrown upon it, His Excellency the Governor in Council considers that Mr. Dalrymple has satisfactorily shown that the remarks of Government, so far as they relate to his report not having been based on sufficient inquiry, were undeserved; but His Excellency, at the same time, adheres to the opinion that Mr. Dalrymple, on the occasion of his inspection of Cochin and the adjoining coast in March 1870, ought not to have omitted to place himself in communication with the officer of the Public Works Department who at the time happened to be in charge of the protective works.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R.E.,
Secretary to Government.

To the Master Attendant, Madras.
To Colonel J. Carpendale, R. E.
To the Superintending Engineer, 7th Division.
„ Marine Department.

Administrative Department.

Madras

Marine Office

31st January 1878.

N. 766.

From

H. D. E. Dakyngple Esq^r

Master Attendant

Administrative Department

To

Madras.

The Honourable R. L. Ellis C.B.

Chief Secretary to Government

Marine Department

Fort Saint George.

Sir

I have the honour to address

* Colonel Car-
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dated 19th May
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Government on a subject, which, until
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approving of my intentions of visiting Cape Comorin and the Ports of Calicut and Cochin, I was placed in communication with Captain H. L. Prendergast R.E., but received no orders of a similar nature regarding the Assistant Engineer at Cochin.

I now proceed with Colonel Carpendale's report.

The only evidence I can find regarding the supposed breach on the Vypcen side is that of Mr. Eppinger, who states that he, one day at low water, saw a gang of coolies driving in a row of piles with hand rams, and noticed that the work was for the purpose of keeping out the sea, which had been washing over, and making a partial breach, but could see no water pass over while he was there, and on this hearsay evidence, which would have been inadmissible in a Court of Law, rests the sole proof that there ever had been a breach. Why were

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Note.
There is no such thing as a "partial breach" by which I presume he means an incipient breach.

none of the coolies employed in driving in stakes, or the Overseer in charge of them examined?

On the other hand, Nanapoy and Lasapoy, Residents on the spot, give directly contrary evidence, as does Captain Castor, Master Attendant.

I beg leave to refer to my Report on this point - in which it appears that I assembled the Villagers, residing on the spot, who all gave the same testimony as the two witnesses quoted above, and it seems unaccountable to me that, so much trustworthy evidence being available, it was not taken advantage of by Colonel Carpendale.

I may here observe that these Villagers had no interest whatever in denying the existence of a breach, but might rather be supposed desirous of founding thereon some claim for compensation

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It must be noted that the Assistant Engineer in his Telegram termed it a "partial breach" and in his letter "a breach"...

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for loss of property - (the Canal cut by a Government Official being the real danger) I firmly believe the above to be the true state of the case, the whole of the evidence being in favour of it.

The wording of Colonel Carpendale's report in this Paragraph* seems to me to be contradictory and unsupported.

He says that the sea encroached upon the shore, topped the bank, and washed it away to some extent* into the boat Canal. Doubtless during High tides the sea encroaches in one sense of the word, i.e. tops the bank at many places along the Coast on the Dyfreen side - but it does not follow that any breach is made thereby.* - The very same thing may be observed on this Coast. I have, on several occasions during high spring tides, seen

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Extract from para 23 of my Report, quoted Report dated 14th March 1870, in the margin. This No. 1221.

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There was no encroachment.

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I now turn to the witnesses of the alleged closing of the Channel, as reported by the Assistant Engineer in charge, on whose testimony Colonel Carpendale seems implicitly to rely.

N^o. 1. Mr. Platel, Sub Magistrate of Cochin.

2. Timmay ferry boat Contractor

3. Mr. Lafrenay, Manager of Messrs. Aspinwall & Co.

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Attendant of Cochin. I remember when Mr. O'Shaughnessy was throwing a Groyne of sand bags and ballast stones to stop the Channel but it was never stopped so as to prevent boats from going through. Signed C. Meyer Senior Government Pilot. Cochin 10th November 1870.

I have rejected the evidence of Mr. Rhode and Mr. Francis and Con which as far as the Channel is concerned is no evidence what ever.

I now draw the special attention of Government to Colonel Carpendale's explanation in Para 111 of the 'ambiguity' of the Assistant Engineer's report, endeavouring to show that he did not mean what he said, or wrote - and that all he meant was that he had only closed up a channel between a suddenly formed shoal, which was then "the shoal or foreshore" within a convenient distance of his sand bag operations, and not "the other shoal, the long existing and still discernible one, which runs North and South."

I rec. The groin marked G A is so far as it has been formed almost entirely of brush wood and sand bags. It was thrown across a deep tidal channel that ran close to the shore, and which was doing much injury, the tides have filled the channel on both sides of the groin

and a sand bank which extends far out to sea* is now connected with the main land.

Note. * Bay Map No. 1 the outer end of this shoal is distant from the shore about one sixth of a mile.

identical operation drawn up by the Assistant Engineer, and forwarded to the Head of his Department, along with the maps in September 1869, and leave it to others to reconcile these differences.

There are other grave discrepancies which call for explanation. In the maps furnished for inspection I find according to Colonel Carpendale's statement in Para 111 that in the Chart (or map) of the Assistant Engineer's "Original Survey" no sand bank is laid down off the ballast groyne. In his "fair plan" (as it is termed) a sand bank appears connected with the said groyne but is an isolated sand bank and not connected with "a sand bank which

Discrepancies. In the Original Survey Chart or map there is no sand bank. In Chart term - ed No. 1, there is a sand bank connected to a groyne from the shore, the outer end being less than one sixth of a mile from the shore. In specification of same date it is thus described: "A sand bank which extends far out to sea is now connected with the main land."

extends far out to sea" as stated in his Report as already quoted.

On

On the other hand all the witnesses conversant with the subject distinctly state that no such passage was ever closed and my own impression is this founded on the evidence on both sides that the Assistant Engineer reported it prematurely as closed and not having had the moral courage to acknowledge his failure and waste of money has allowed the Government to suppose that the channel was closed until my report of 14th March 1870^{*} went in giving the actual measurement of the breadth of the channel then existing and which had been reported closed 5 months before.

It is also remarkable that in support of this "newly formed sand bank" theory - Sweeny's Chart of 1852 is selected instead of the latest survey by Lieutenant Taylor J.N. of 1858 which ignores the existence of such a sand bank.

in

In Para 3 Colonel Carpendale premising that he forbears giving any opinion regarding certain statements in my Report proceeds forthwith to comment upon them. — In the same Para he states that groynes No. 9 & A which is constructed of stakes, batties, sand bags and small stones has well answered the purpose for which it was designed but goes on to recommend that it be strengthened by the addition of large quantities of stone of good size to enable it to withstand the coming S.W. Monsoon. Can it be said that a work has well answered the purpose for which it was intended when to save it from de-

Note.
* On the principle originally recommended by the Harbour Committee and approved of by Government.

Note.
The Cochin people know that there were other experimental works which to quote a Report I received "were swept away as might have been foreseen long before Colonel Carpendale visited Cochin."

struction during the S.W. Monsoon it must be remodelled and rebuilt.

In the same Para he touches on the "one wooden groyne only constructed" and goes on

on to state that though it does not answer the purpose for which it was intended it prevented to him "a tolerably uninjured appearance."

In answer to this I quote the Assistant Engineer's own description of it "when it was built

"The Groyne marked **B**" is a wooden groyne. — It is formed of a double row of piles, sheet planking and land ties. — The piles are driven 6 feet into the sand by a small pile driver made up for the occasion, they are 10 feet apart in the direction of the groyne and 3 inches apart transversely, — the plank-
ing was driven down between the piles which were braced tight on the planks and secured by ties and wooden kegs."

and as when Colonel Carpendale saw it only the piles (and not all of them) were left standing I leave it to Government to decide whether it may or may not be justly termed a wreck.

Colonel Carpendale goes

on to pass remarks on the Typhoon main groyne which I quote in full in the margin.

He gives it the praise of being "too substantial for the waves to shift the stones or dismantle it" but at the same time does not seem

"Mr Dalrymple in para 7 of his last letter attributes the loss of certain land that had been reclaimed and the houses being washed away to the lowering of this groyne. I am not able positively to dispute this, but I cannot comprehend how the small quantity of water that would pass over the groyne could wash away the newly formed beach."

Note.
* Why is it assumed to be a small quantity of water? — in rough weather and high tides large quantities wash over it.

to see much harm in tampering with a thoroughly well constructed work so as to enable the sea, in rough weather, or during high tides, to wash right over it. — Again, he cannot see why the water, which passes over it, can wash away the newly formed beach gained by it. — It is, however, a fact that the date of the disappearance of the regained beach coincides with that of lowering the groyne, and allowing the sea to wash over it.

The lowering of that groyne by the Subordinate in charge, after it had been approved of by the Harbour Committee, was, it seems to me, an unjustifiable act. No argument will ever convince me, or any one conversant with Marine Engineering, that the efficiency of this groyne has not been thereby impaired.

I may here also remind Government that the Harbour Committee laid particular stress on the necessity of

of carrying out the main groynes, and after the Members of the Committee were dispersed — repeated and urgent

recommendations were

made to Government

by the Head of the Ma-

rine Department, and concurred in by

Major Shaw Stewart,†

Royal Engineers, both

Members of the Committee, and not-

withstanding these appeals and the

orders of Government thereon, the

work was stopped

in deference to the opi-

nion of a Subordinate

in the Department of

Public Works.

† In letters dated

6th March 1869

23rd March —

5th April —

12th April —

‡ In letter dated 6th March

1869, No. 1481.

Colonel Farewell, Acting

Superintending Engineer, now in

letter dated 6th October 1870,

No. 358, strongly recommends "as

of the greatest immediate

importance" the lengthening of

this groyne.

Colonel Carpendale winds

up his Report with groyne No. 8, stating

that some of the stones were removed

and laid on the beach, but he cannot

acquiesce in the opinion that it is

destroyed altogether, or rendered in-

efficient as a groyne.

* By whose orders?

The foregoing remarks apply equally here.

It

It seems to me that, when the inner end of a groyne is removed, so as to allow boats to pass through the opening between the outer, or remaining end, and the shore, and the tides to ebb and flow through it, that it ceases to be a groyne, and that, as a groyne, it is destroyed.

As Colonel Carpendale has volunteered opinions on these works, and made comments on my statements, why does he omit all mention of the Canal cut through the Vyseem spit of land?

He remarks in Para 6 on the "unseemly spectacle of two officers of Government reporting in contradictory terms on matters of fact."

I beg most respectfully to ask whether Colonel Carpendale has not here gone beyond his instructions in criticising action taken by the Head of another department. Throughout my correspondence on Cochin affairs

I have to avoid personalities - refrained from mentioning the name of the Assistant Engineer in charge of the works, - a wholesome rule in official correspondence, which, in the Report under review, has not been observed.

The Assistant Engineer has from time to time led Government to suppose that all, or nearly all, the groynes laid down by the Marine Department were useless - that groynes Nos. 3, 4, 5, 6 had sunk at their heads - that the Typoon Main Groyne was unnecessarily high - that others were totally "destroyed" - that the price paid for the stone procured from the quarries, 12 miles distant, was too high - that the Contractors who supplied the stone

sublet their contracts - that all his own experimental works were successful - these assertions have been disproved, and I leave it to Government to

* In letters from Master Attendant Madras to Chief Secretary to Government, dated 18th January 1870, No. 1223A, in paras 4, 5, 7, 8, 12, 14, 17, and 18th, March 1870, No. 1221, and dispositions received from Cochin, refuting the charge of subletting contracts.

to decide whether or not they were "misrepresentations." - Before closing this review, I beg leave to inform His Excellency the Governor in Council that I do not stand alone in the opinions I maintain - those of my

*
Brisford Anderson Esq., Chief Engineer, Madras Railway.
Major Shaw Stewart R.E.
They have seen all the papers and entirely concur with me. -

Colleagues on the Harbour Committee are the same as mine.

In conclusion, while adhering to my Report, I trust that, in refuting the charges of inaccuracy and carelessness, - grave charges against the Head of a Department, - I have not overstepped the latitude allowed an accused person when defending himself.

I have the honour to be
Sir

Your most obedient Servant

M. D. S. Dubynple

Master Attendant
Administrative Department.

1st Nov/70. to 1-2. hrs
 26 July - 14-15 hrs
 2 Aug - one 110 hrs
 2 April/70. to 26-27 hrs
 14 Dec/69 14-17 P.M.
 1 Aug - 1-2. do
 3 April - 8-9. hrs
 25 July - 24-25 P.M.
 13 Sep/70. 19-21 hrs
 7 July - 5-6. hrs
 5 Jan - 25-29 hrs
 29 Oct - 16-17-20 do
 9 do - 8. do
 16 Aug - 24-26 P.M.
 28 June - 20-22 P.M.
 9 do - 8-9 hrs
 7 do - one 181. hrs
 18 Aug - 10-11 hrs

Transferred to the Public
 Works Department.
 L. Hudson
 Secy to Govt.
 6 Feb/71.

No 288 & 289
 to 25 Feb/71 to 18 April/71

Marine Dept
 1871

No 572 A

The Master Attendant
 Administrative Dept

To

The Chief Secy to Govt

Marine Dept

Fort St George

Dated 31 January/71

Recd 31st

No 41 No 766

Submits remarks
 on the Report of
 Colonel Carpendale
 on the Cochin Harbor
 works.

No 1114 - 20 April/71

No. O S's Telegram dated 4th January
 1870.

"A partial Breach at Typeen enlarged"
 by every tide.

Extract from letter from Mr. O.S. to
 Secretary P.W.D. dated Cochin 15th
 January 1870 No. 126.

"I have the honour to report that the"
 "Breach at Typeen reported to you by"
 "Telegram on the 4th Instant has been"
 "closed temporarily. Yca."

Extract from Report, Estimate and
 Specification prepared by Mr. O.S.

"The groin marked G.A. Yca. Yca."
 "The tides have filled up the channel
 on both sides of the groin, and a
 sand bank, which extends far out to
 Sea, is now connected with the main
 land."

Extracts from letter from Mr. O. S.
to Secretary, A. P. W. dated 27th Sep.
-ember 1869, No. 78.

"I have the honour to enclose a sketch
of the Cochin Coast showing the position
of an embankment I have recently
constructed to close a channel that
has always existed between the Vypren
Coast and the shoals in front of it."

This channel is described in Swamy's
"Survey of 1852. Yes. Yes."

"The manner of closing the Channel"
"by the means adopted Yes. Yes."

"I anticipate very favourable results"
"from the closing of this channel Yes."

Extract from Colonel Larpendale's
Report dated 19th May 1870.

"Mr. O. S. took advantage of the
opportune circumstance and constructed
Groyne

Groyne No. 9 A across the then only
existing boat channel to join the
sand bank, and so did actually
connect it with the main land
of Vypren". —

"Whereas the sea had closed that
particular channel as shown in the
charts (and which was described
as highly dangerous to Vessels) by
forming a sand bank right across
it, and Mr. O. S.'s embankment,
that is groyne No. 9 A closed up
the then only existing boat passage
and which lay between the newly
formed sand bank and the Vypren
Coast Yes."

Went: by

Attn: The President.

I have read these papers with attention
and held long discussions with Mr.
Dalrymple and with Colonel Carpenter.
I do not think that we can excuse Mr.
Dalrymple with reference to the fact that
he did not confer personally with Mr.

O'Shaughnessy as to the state of the Port
of Cochiti and the works in progress for its
protection.

I do think, however, that we may relieve
Mr. Dalrymple of the censure cast upon
him in the 3rd Para. of the Government
order which imputes to him precipitation
and haste in imputing to an Officer of
Government, in another Department, a
deviation from truth in his reports to Govern-
ment.

On a revision of the case the communication
and proceedings of Mr. O'Shaughnessy
appear more suspicious and doubtful
to me and if I do not see evidence of
actual deception I see at least a good
deal of exaggeration and ambiguity of
language.

I pass on to the question of a "Breach" or
partial Breach" in the Tyneen Island.
The language used by Mr. O'Shaughnessy
respecting this Breach (which certainly
never occurred) may be qualified merely
as inaccurate and highly colored; it
referred rather to what was impending

or expected them to what actually took place. If we desire to take a charitable and lenient view of Mr. O'Shaughnessy's conduct we may admit that he did not intend to convey to Government a false impression of a local incident. But the question of the "Boat-Channel" is more complicated and I am not sure that in this matter Colonel Caspendale has himself been quite accurate and that Mr. O'Shaughnessy has been quite wrong.

The case seems to me to stand thus. Off the mouth of the Harbour of Cochin and to the north of it the shores of the Vypren Island are skirted at the distance of about 1200 yards by various sand-banks which have a permanent form and the ocean surf breaks upon them continuously.

Between this fringe of outer shoals and the Vypren shore there is a boat channel, called in the charts "Swamy's Channel", which is habitually traversed by craft going to and fro between the town and the depots in the roads. The channel, however, is chiefly used by boats returning empty from the ships.

The space between the outer sand-bank and the shore is not however always clear or of stable configuration: it is infested by shifting lower sandbanks which intercept the channel and cause it to vary in depth and direction. Among these there was a shoal or sand-bank in 1869 which having appeared for some time near the end of the main groyne transported itself a little to the north and laid itself on the eastern side of the main boat channel

at a very short distance from the shore occupying a portion at least of the old Boat Channel but admitting a narrow Boat Channel between it and the Beach on the East. Whether it filled up the whole of the old Boat Channel westward is not clear to me. I think it possible that there may still have been a passage to the west between the new sand-bank and the outer fringe of shoals.

Mr. O'Shaughnessy, espousing this new sand-bank conceived the idea of uniting it to the Vypren Island by a groyne or embankment, called in the papers No. 8.A., and actually did so; forming a connection on which people walked at low water to and from the sand-bank and which Colonel Caspendale, at a later period, found visible half an hour after high tide. I think that this embankment must, for a time at least, have stopped the channel between the sand-bank and the Beach: but this dam did not stop or crop the exposure of water to the west of the sand-bank, between it and the outer fringe of shoals.

Mr. O'Shaughnessy reported his work in very ambiguous terms in such terms that persons at a distance might naturally infer that he had stopped all passage between the coast and the outer fringe of shoals.

The sand-bank attached by Mr. O'Shaughnessy to the Beach soon disappeared. It was there in September 1869 when he conducted the work - in March 1870 it was gone and

4.
Mr. DuRoi navigated a practicable channel where it had lain. In May 1870, however it had returned nearly to the same place and Colonel Carpendale found it there - but not now quite attached to the shore, for there was between the end of the foggy No. 8. A. and the sand-bank a narrow channel about 20 ^{feet} yards wide through which boats of light draft could pass.

The language used by Mr. O'Shaughnessy certainly implies that he had practically and effectually stopped the passage of boats between Vesper and the outer fringe of Shoals - that he had stopped up the whole boat channel. Colonel Carpendale, in his report, affirms that he had, in the month of September, done so. According to Colonel Carpendale Mr. O'Shaughnessy stopped the "only channel" then existing. This, I confess, does not seem to me to be proved. There is no distinct evidence to that effect. Granted that the narrow channel between the sandbank and the beach was stopped even at high tide, I do not see it distinctly in evidence that there was not some other boat channel to the west of the sandbank between it and the outer fringe of Shoals. On this point Colonel Carpendale did not take the evidence of seafaring men and I remain under the impression that there was some passage or other on that side. There is the evidence of the Master Attendant and the Pilot to the

5.
effect. That some passage or other did continuously exist. -
This impression is strengthened by what occurred when Colonel Carpendale went down. Colonel Carpendale found the sandbank which existed in September 1869 and disappeared in March 1870, restored, nearly to its place, in May 1870. There was a very small boat passage at the eastern side of it. On the western side, as I understand from the verbal explanations of Colonel Carpendale, there was an expanse of shallow water stretching away to the outer fringe of Shoals. Into this shallow water Colonel Carpendale sent a man who waded for 1000 or 1500 feet up to his knees or more - about two feet deep. If to these two feet we add three feet for the rise of the tide we get an aggregate depth at high tide of five feet. And in particular parts or beyond where the man waded there may have been more. The deep distinct Boat channel had disappeared but the passage could scarcely be said to be absolutely closed, and this stoppage, such as it was, was of very brief duration, for on the morning of Colonel Carpendale's departure a new channel was opened out by the sea through the very sandbank on which Colonel Carpendale had stood, dry shore, two days previously.

and was traversed by the Irish-
 Lifford. In September 1869. the
 seaway may have been as much
 closed, or more closed than in May 1870.
 but as I said before the evidence does
 not incontrovertibly prove it. And when
 Colonel Cusperdale affirms in his report
 that Mr. O'Shaughnessy closed the "only
 existing channel". I apprehend that the
 fact is either overstated or that the
 stoppage was so very transitory that it
 could not be called a real or effectual
 stoppage. Mr. O'Shaughnessy closed a
 channel, that is certain. but it is not
 certain that he closed every channel.

On the whole it seems to me that
 the blame cast on Mr. Dalrymple in the
 last Para: of the Government order may
 not be deserved. The reports and proceedings
 of Mr. O'Shaughnessy were at least
 ambiguous; he may not have intended
 to decide. he may only have intended
 to make the most of his services. but the
 suspicious and jealousies of Mr. Dalrymple,
 responsible as he was for the expenditure
 of the Port funds, may not unreasonably
 have been aroused. He gave Mr. O'Shaughnessy
 credit for even less than he did, but Mr.
 O'Shaughnessy did not do so much as his
 language implied. I think the Government
 may on reconsideration modify their
 order to the following effect. I would say-

On a reconsideration of this question in
 connection with the additional explana-
 tion now submitted by Mr. Dalrymple
 the Government exonerate him from the
 blame embodied in the last Para: of their
 order under date of the 19th of July 1870.

434

N.

As far as I am instructed this
 question I agree with Lord Cairns
 in considering that there is
 much to be said in favor of
 his view of this case which has
 been advanced by Mr. Dalrymple's
 last letter. Indeed I go to far
 as to think that on both points
 Mr. O'Shaughnessy has been pretty
 nearly right. The amounts which
 amount almost if not quite
 to his statements. I would
 say that his account was correct
 but Mr. Dalrymple has
 satisfied himself that the
 charges proposed upon him in the
 last part of the P. O. of the 19th
 3rd June of the P. O. of the 19th
 July 1870 are misapprehended.
 He has certainly shown that he
 has carefully into the matter
 and that we were not justified

in changing him with want
of care.

I would add "he is in
act at the same time address
to the opinion that the
Dalyneple ought to have placed
himself in communication with
Mr O'Shaughnessy whom he invited
to work at Corkin on the occasion
of his visit to that place in
March 1870."

A. A.

I have seen the paper carefully
I consider that Mr Dalyneple has
made good the accuracy of his
statements and should be relieved
of the canker borested on him. Even
in regard to Mr O'Shaughnessy I think
it was the duty of the latter - as the
printer, to visit Mr Dalyneple.

L. D. C.

Public Works Department

Letter from the Master Attendant
Administrative Department
Dated 3rd January 1871. No. 766.

circulated

for orders.

Feb 1871

Wm. A. R. D. L. G. S.
Secy to Govt. P. W. D.



1874

Govt of Madras.

PUBLIC WORKS.

The Master Attendant
Madras

20th Feb 1874

Nos. 185 & 290

Received of the
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Madras
the sum of
Rs. 100/-
for the
Public Works.