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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	576	Press
		Mis.
Dated	19-5-1866	

Not to be folded or roughly handled

Read the following letters.

No. 120. From Captain C. H. DICKENS, Officiating Secretary to the Government of India, to the Secretary to the Government of Fort Saint George, dated Fort William, 12th January 1860, No. 186:—

Your letter No. 2307, dated 27th September last, regarding the formation of a Boat Harbour at Beypoor having been under the consideration of the Government of India, I am directed to communicate the following observations.

2. As was anticipated by the Government of India, the estimate now submitted very greatly exceeds the sum originally named; and even this larger sum does not, it is feared, represent the full amount that would be required to complete the project.

3. The only difficulty represented to exist at present is the want of water over the bar, but a reference to the plan shows the water over the bar to be of the same depth as across the mouth of the projected Harbour; and as dredging must be constantly resorted to, in order to keep the Harbour clear, it is not understood why the dredge cannot be used on the bar.

4. The Government of Madras would appear to contemplate the use of the proposed Harbour for goods and passengers for Calcutta during the three or four years that may elapse ere Railway communication is opened from Bombay to Calcutta, but I am to remark that half that period at least will have passed before the works at Beypoor can be completed.

5. His Honor in Council failed to see how such a scheme, so far at least as constituting Beypoor a port for the Mail Steamers, could be entertained without first obtaining nautical opinion as to the practicability of access to it during the South-west monsoon. To supply this want in some measure, the papers were referred to Captain Rennie, C. B., of the Indian Navy, the Superintendent of Marine, and his opinion is strongly adverse to the project. A copy of his report* is forwarded herewith, and I am directed to draw attention both to Captain Rennie's objections on nautical grounds, and to his suggestion for the provision of a Light-house; which latter, if found to be necessary, will add largely to the cost of the work.

6. Acting on the advice of Captain Rennie, the President in Council has further obtained the opinion of Lieutenant Taylor of the Indian Navy, who is stated to have had better opportunities of forming a reliable judgment on the suitability of Beypoor for the purpose indicated than any other Officer in the service. This opinion, contained in a letter dated the 18th November, No. 62, of which a copy accompanies, is also, as you will perceive, adverse to the project.

7. The only question for consideration, therefore, now is, how far the proposed outlay will be of advantage to the Madras Presidency alone, and almost solely during the North-east monsoon; and with the view of determining this point, the President in Council will be prepared to take into consideration the proposal for the appointment of an Officer to investigate carefully the practicability of the scheme as a question of Engineering, should the Government of Madras, after full consideration of the nautical opinions now forwarded, still desire to prosecute the examination of the project.

8. I am, however, to remark that the Government of India cannot, without further information, consent to any expenditure on the works.

9. The above views have been communicated to the Home Government.

10. The plan received with your letter will be returned shortly.

From Commander J. RENNIE, C. B., Superintendent of Marine, to Colonel R. BAIRD SMITH, C. B., Officiating Secretary to the Government of India, Public Works Department, No. 9751, dated 8th November 1859.

I have the honor to acknowledge receipt of your letter No. 7623, (with enclosures), dated the 2nd instant, in which I am requested to favour the Government of India with my opinion on the project of a Boat Harbour at Beypoor, as also desiring me to submit any information that my knowledge of the Malabar Coast may enable me to supply of a useful nature.

2. My visits to the Malabar Coast have been frequent but almost invariably during the fine season, and only once during the South-west monsoon, late in September, on which occasion the vessel of the Peninsular and Oriental Steam Navigation Company by which I was proceeding called off Cannanore to land passengers, but the swell was so heavy it was found impracticable to disembark them either at Cannanore or at Beypoor, and they were carried on, and eventually landed at Cochin, where the water in the roadstead was found to be comparatively smooth.

3. As this occurred late in September, when the monsoon may be said to be over (and in fact there was no wind on the occasion I refer to), it is a tolerably clear proof that, during the prevalence of the monsoon season, passengers cannot be disembarked at Beypoor from Steam Vessels without having to run a risk they are not likely to be willing to incur.

4. Even conceding that the projected Boat Harbour will be a sufficient protection, and enable boats to land mails, goods and passengers with safety, I do not think that the weather prevalent on this part of the Malabar Coast from June to September will permit of communication between the shore and the vessel in the roadstead with perfect safety to either mail, goods or passengers; for, although, it may be quite smooth water under shelter of the proposed break-water, I have strong reasons to suppose that on many days during the stormy weather, the sea outside must break with violence at a distance from the shore and be impassable for boats; in fact, in the letter submitting a revised estimate for constructing a break-water, the Resident Engineer admits that it must be made very strong throughout to prevent its bursting in the monsoon, and the experience gained by observing what occurs on shelving banks like that off Beypoor, convinces me that the sea, during the monsoon, must break heavily at a long distance from the Coast.

5. As to whether the expectation will be realized that mails and passengers for Calcutta will be landed at Beypoor when the Harbour is completed, it is scarcely within my province to remark upon, but I confess that, as regards passengers, I strongly doubt if one tithe of those from Calcutta would be inclined to undergo the annoyance of landing at Madras, the hurried transit of the peninsula and the embarkation at Beypoor, for the sake of gaining three days on the entire voyage. Goods I consider will still be carried by the longer route via Galle, for as the silk from China comprises the most valuable portion of the goods cargo conveyed on the vessels of the Peninsular and Oriental Steam Navigation Company, I can scarcely believe that Company will be inclined to divert the general Steam Vessel from Galle to Beypoor merely to accelerate the landing of the mails and passengers for Madras, which would of course occasion a detention to the mails and passengers proceeding to the eastward, and to the passengers for Calcutta who preferred the comforts of the Steamer to the inconvenience and hurry of the Railway route; and that most of them travelling by these vessels will adhere to the Steamer is pretty evident from what occurs on the other side of Suez, where even the terrors of the dreaded Bay of Biscay do not prevent the greater bulk of passengers adopting the route in preference to that via Marseilles or Trieste. It would, therefore, be necessary to place a Steam Vessel especially on the line from Aden to Beypoor.

6. But as soon as the Railway communication between Calcutta and Bombay is completed, there can be no question as to that route being in every way preferable to the Beypoor and Madras line, for by the former the passenger avoids all the inconvenience of transshipment; the Beypoor Boat Harbour would, therefore, be at the utmost only of use to Calcutta at best, until such time as the more direct line of communication has been secured.

7. In estimating for the cost of the projected Boat Harbour, nothing seems to have been allowed for the construction of a Light-house, without which I consider the Harbour would be unapproachable during the monsoon; and as this edifice ought to be of sufficient height to be seen at least eighteen miles from seaward, and the light of the first order, the construction will add considerably to the estimate which has been submitted.

8. I would further beg to suggest that the opinion of the Officer mentioned in Captain Bean's letter (Lieutenant A. D. Taylor, I. N.) be obtained on the projected measure. He has had better opportunities of judging as to its suitability than any other Officer of the service.

From Lieutenant A. D. TAYLOR, I. N., to Commander H. W. GROUNDS, Commanding H. M. S. Ajdaha, I. N., No. 62, dated 18th November 1859.

In conformity with your directions, I have the honor to report that my opinion is against the practicability of ships discharging cargo and passengers at Beypoor at all times during the South-west monsoon, even if aided by the formation of a Boat Harbour.

2. That part of the coast is not exempt from those periods of strong winds and their accompanying heavy rain and swell, which, as at Bombay, alternate with periods of fine weather, moderate breezes, and tolerably smooth water; the former circumstances, however, are the rule, the intervals of fine weather being only the exception; and although cargo and passengers could be got into boats alongside the ships at the latter time, it is hopeless to expect such success during the heavy continuous rain and wind, accompanied by the cross swell that rolls on to that coast with great force when the South-west monsoon is at its height.

3. I consider the operation of loading the boats alongside of ships as a more difficult business than the entering of the Boat Harbour; for when the swell is so moderate as to permit their being thus loaded, they may doubtless be taken in safely to the landing place on the lee side of the rocks.

No. 121. From Captain C. H. DICKENS, Officiating Secretary to the Government of India, to the Secretary to Government, Fort Saint George, dated, Fort William, 13th February 1860, No. 764.

In continuation of the letter from this Department, No. 186, dated 12th ultimo, I am directed to forward the accompanying copy of a Report by Lieutenant A. D. Taylor, I. N., on the proposed Boat Harbour at Beypoor, and to suggest that application be made to the Government of Bombay, for the services of that Officer, in order that he may be employed on the spot to concert with the Railway and Government Engineers the measures most proper for securing the greatest possible advantages to the Beypoor Terminus of the Railway.

2. Although the former scheme has not proved so promising as was expected, the Government of India regard the subject with interest, and will be prepared to give their cordial support to any suitable scheme for fostering the trade of that coast in connexion with the Railway.

From Lieutenant A. D. TAYLOR, I. N., to Commander H. W. GROUNDS, I. N., Commanding H. M. S. "Ajdaha," No. 63, dated 22nd December 1859.

In returning the original documents relating to Beypoor, which were referred for my observations, I have the honor to state that there are several points connected with the Boat Harbour at that place, upon which I may be permitted to give an opinion, and for convenience of reference I would place under the following heads:

First—The possibility of anchoring off Beypoor at all times.

Second—Of shipping and unshipping cargo during the whole South-west monsoon.

Third—Of being able to run boats behind the break-water at all times.

Fourth—Whether the water may be always quite smooth there.

Fifth—Whether it will be so effectual and lasting a Harbour as expected.

Sixth—Whether some important considerations, have not been omitted from the proposed scheme.

2. In considering the first two heads I would mention the peculiarity of the winds and weather on that part of the Malabar Coast. The monsoon generally commences with a gale from the southward, the occurrence of which may be looked for during all the month of May. After the first fortnight of the monsoon, the wind comes well from West, and even at times from North-west; but the ocean swell assumes a settled direction of about West South-west, and the current is almost constantly running to South South-east, along the coast. The rolling of a vessel with the swell on her beam would be very annoying, and a great hinderance to discharging or taking in cargo.

3. At Calicut about 150 inches of rain fall between May and October, and this comes in such copious down-pours as to obscure all objects, and to render the making out of such low land as Beypoor a difficult job during rain, for there is no light to guide a vessel; that of Calicut is a miserable thing, and as the reefs between the two named places extend nearly two miles off shore beyond the line of five fathoms, there is danger in standing in close to make that light.
4. With reference to a statement among the correspondence, that there was not a day during the last monsoon (1858) on which mails and passengers could not have been landed at Beypoor, I may remark that a similar note was made regarding the entrance of Tuddry River during the same season, by an intelligent Officer in the Department of Public Works; and this coincidence in observation leads me to conclude that the above named season (during the half of which I was at Mangalore, and observed the extreme deficiency of wind), was one of unusual mildness, though it was ushered in very early in May.
5. In the face of statements, such as are exhibited throughout this correspondence by residents near the spot, that the number of days during the monsoon, when a steamer could not come to an anchor off the Harbour, is very small indeed, I can oppose only such arguments as have occurred to me living on the same coast and not far from Beypoor; but having for many years taken a deep interest in the development of the West coast trade, and having fully considered the nautical bearings of the subject, earnestly scanning the periodical weather reports from the coast, I must give my opinion that, during the two and a half months from middle of May to the end of July, it will be unwise to permit vessels to go to Beypoor, or to any place on the Coast of Malabar, except Alippee.
6. I shall not enter upon the discussion of the probable occurrence of the periodical storms (cyclones) which have occurred in April or November; these come at long intervals of years, and are contingent also to Madras, to the Sandheads, and to Bombay.
7. The next three heads comprise the question of boats being able to run behind the break-water at all times, and of the practical nautical value of the plan suggested. The first question I answered, (when referred to in the middle of November in consequence of a telegram from the Government of India), but my opinion may be repeated here; I consider the operation of loading the boats alongside ships as a more difficult business than the entering of the Boat Harbour; for when the swell is so moderate as to permit of their being thus loaded, they may doubtless be taken in safety to the landing place to leeward of the rocks; to this I would add, in reference to question 4, that when the swell in the roads is too heavy to permit of loading and discharging, I believe that there will be also much too confused a sea off the Pier Heads, situated as the plan shows it to be proposed, in only nine feet at low water.
8. I may mention that I did not formerly know the exact plan of a Boat Harbour recommended, entertaining an impression that the end of break-water should be carried out further southward into 14 feet at low water, and that the space connecting the rocks with the main land would be merely on screw piles, so as to permit that annual seasonable scour which, I am convinced, is the sole cause we can assign for the retention of such deep water as exists over the site of the proposed Harbour.
9. I do not agree with Colonel Bell in the 3rd paragraph of letter No. 5105, dated 16th September 1859, that because the current during the monsoon is from North-west to South-east, it would not tend to fill up with sand the projected Boat Harbour. In that same letter the height of the break-water throughout is given as four feet above high water spring tides; I have every confidence that, over such a low barrier as that, our ocean swell will (even at lowest tides) beat and carry the sand which is held in suspension, and that in three stormy seasons the mouth of the Boat Harbour will be silted up and sealed at low water from the rock to the main. In the stormy seasons I say, supposing it were possible to complete the projected work off hand in the interval between two South-west monsoons; but as the operations are calculated to extend over two and a half years, and presuming that they will be commenced by closing the space which now separates the rocks from the main, it may reasonably be predicted that the upper or northern half of the contemplated Boat Harbour will not float a canoe after the first monsoon which follows the closing of that passage.

10. The sixth and last consideration is, whether there are not some important omissions in the Harbour scheme; Captain Rennie has pointed out one of utmost importance, a first class Light-house, whose light should be visible many miles off; to this I may add that a new description of boat will be needed, of the life-boat description, and many of them; and for the management of these, a style of boatmen, very different from any our West coast can boast of, will be absolutely necessary, owing to the almost hopelessness of initiating the adult natives of this country into the management of any new fashioned boat, which neither they nor their fathers had ever before tried.

11. In conclusion I trust it may not be thought that, in submitting an opinion upon the nature of the work in question, I am exceeding my province; I conceive that the nautical bearings of the project comprehend an exposition of the natural forces brought into play during the stormy period of this West coast, a subject to which I have devoted many years of earnest study on the spot, and to which I had hoped to have added some valuable information after the inspection of the West coast ports in a steamer during the late South-west monsoon, to which proposed inspection (which to my regret was not carried out as there was no available steamer), Captain Bean, the District Engineer of Malabar, alludes in his letter No. 260, and which, I feel confident, will have to be carried out sooner or later for the advancement of commercial interests. Indeed it may fairly be argued that neither am I, nor is any nautical man, competent to pronounce any opinion, as to the safety of Beypoor roads, adverse to the expressed *experience* of eminent Engineers who have resided in the neighbourhood, unless we can speak as they do from actual observation.

12. With the above proviso, I would strongly recommend the Railway Authorities not to risk the loss of an excellent fair season Boat Harbour, (which, as I pointed out to the Chief Engineer, Mr. Heppel, and to others at Madras two years ago, might be made available for nine months of the year during a portion of which the River Bar presents too much surf to admit boats in safety), to risk, I say, the fine season Boat Harbour in an endeavour to make one which shall be accessible in all weathers, an attempt which I most earnestly deprecate, as I cannot believe it will be successful at Beypoor.

No. 122.

ORDER THEREON, 19th March 1860, No. 576.

Ordered that these two letters and their enclosures be communicated to the Chief Engineer with reference to the Despatch from the Secretary of State, transmitted to him in an Order of February 8th 1860, No. 315.

(Signed) J. D. BOURDILLON,

Secretary to Government.

2

No. 186.

FROM

THE OFFG. SECRETARY TO THE
GOVERNMENT OF INDIA,

To

THE SECRETARY TO THE
GOVERNMENT OF FORT ST. GEORGE.

PUBLIC WORKS DEPARTMENT,

Fort William, 12th January 1860.

Marine.
Harbours.

SIR,

YOUR letter No. 2307, dated 27th September last, regarding the formation of a Boat Harbour at Beypoor having been under the consideration of the Govt. of India, I am directed to communicate the following observations.

2. As was anticipated by the Govt. of India, the estimate now submitted very greatly exceeds the sum originally named; and even this larger sum does not, it is feared, represent the full amount that would be required to complete the project.

3. The only difficulty represented to exist at present is the want of water over the bar, but a reference to the plan shows the water over the bar to be of the same depth as across the mouth of the projected Harbour; and as dredging must be constantly resorted to, in order to keep the Harbour clear, it is not understood why the dredge cannot be used on the bar.

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5. His Honour in Council failed to see how such a scheme, so far at least as constituting Beypoor a port for the Mail Steamers, could be entertained without first obtaining nautical opinion as to the practicability of access to it during the S. W. Monsoon. To supply this want in some measure, the papers were referred to Capt. Rennie, C. B., of the Indian Navy, the Supt. of Marine, and his opinion is strongly adverse to the project. A copy

* No. 9751, dated 8th November 1859. of his report* is forwarded herewith, and I am directed to draw attention both to Capt. Rennie's objections on nautical grounds, and to his suggestion for the provision of a Light-house; which latter, if found to be necessary, will add largely to the cost of the work.

6. Acting on the advice of Capt. Rennie, the President in Council has further obtained the opinion of Lieut. Taylor of the Indian Navy, who is stated to have had better opportunities of forming a reliable judgment on the suitability of Beypoor for the purpose indicated than any other Officer in the service. This opinion, contained in a letter dated the 18th November, No. 62, of which a copy accompanies, is also, as you will perceive, adverse to the project.

7. The only question for consideration therefore now is, how far the proposed outlay will be of advantage to the Madras Presidency alone, and almost solely during the N. E. Monsoon; and with the view of determining this point, the P. in C. will be prepared to take into consideration the proposal for the appointment of an Officer to investigate carefully the practicability of the scheme as a question of Engineering, should the Govt. of Madras, after full consideration of the nautical opinions now forwarded, still desire to prosecute the examination of the project.

8. I am, however, to remark that the Govt. of India cannot, without further information, consent to any expenditure on the works.

9. The above views have been communicated to the Home Govt.

10. The plan received with your letter will be returned shortly.

I have the honour to be,

SIR,

Your most obedient Servant,

FORT WILLIAM,
The 12th Jan. 1860.

W. Rennie Capt.
Offg. Secy. to the Govt. of India.

6

From Lieutenant A. D. TAYLOR, I. N., to Commander H. W. GROUNDS, Commanding
H. M. S. Ajdaha, I. N., No. 62, dated 18th November 1859.

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2. That part of the coast is not exempt from those periods of strong winds and their accompanying heavy rain and swell, which, as at Bombay, alternate with periods of fine weather, moderate breezes, and tolerably smooth water; the former circumstances, however, are the rule, the intervals of fine weather being only the exception; and although cargo and passengers could be got into boats alongside the ships at the latter time, it is hopeless to expect such success during the heavy continuous rain and wind, accompanied by the cross swell that rolls on to that coast with great force when the South-West Monsoon is at its height.

3. I consider the operation of loading the boats alongside of ships as a more difficult business than the entering of the Boat Harbour; for when the swell is so moderate as to permit their being thus loaded, they may doubtless be taken in safely to the landing place on the lee side of the rocks.

97th Decr/59. 12-51-52

20th Nov.

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From Lieut. A. D. TAYLOR, I. N., to Comdr. H. W. GROUNDS, I. N., Comdg. H. M. S. "Ajdaia," No. 65, dated 22nd December 1859.

SIR,—In returning the original documents relating to Beypoor, which were referred for my observations, I have the honour to state that there are several points connected with the Boat Harbour at that place, upon which I may be permitted to give an opinion, and for convenience of reference I would place under the following heads:

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- Fourth—Whether the water may be always quite smooth there.
- Fifth—Whether it will be so effectual and lasting a harbour as expected.
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2. In considering the first two heads I would mention the peculiarity of the winds and weather on that part of the Malabar Coast. The monsoon generally commences with a gale from the southward, the occurrence of which may be looked for during all the month of May. After the first fortnight of the monsoon, the wind comes well from West, and even at times from North-west; but the ocean swell assumes a settled direction of about W. S. W., and the current is almost constantly running to S. S. E. along the coast. The rolling of a vessel with the swell on her beam would be very annoying, and a great hinderance to discharging or taking in cargo.

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5. In the face of statements, such as are exhibited throughout this correspondence by residents near the spot, that the number of days during the monsoon, when a steamer could not come to an anchor off the harbour, is very small indeed, I can oppose only such arguments as have occurred to me living on the same coast and not far from Beypoor; but having for many years taken a deep interest in the development of the West coast trade, and having fully considered the nautical bearings of the subject, earnestly scanning the periodical weather reports from the coast, I must give my opinion that, during the two and a half months from middle of May to the end of July, it will be unwise to permit vessels to go to Beypoor, or to any place on the coast of Malabar, except Alipee.

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29/12/59

29/12/59
H. W. G.

to this I would add, in reference to question 4, that when the swell in the roads is too heavy to permit of loading and discharging, I believe that there will be also much too confused a sea off the pier heads, situated as the plan shows it to be proposed, in only nine feet at low water.

8. I may mention that I did not formerly know the exact plan of a Boat Harbour recommended, entertaining an impression that the end of breakwater should be carried out further southward into 14 feet at low water, and that the space connecting the rocks with the main land would be merely on screw piles, so as to permit that annual seasonable scour which, I am convinced, is the sole cause we can assign for the retention of such deep water as exists over the site of the proposed harbour.

9. I do not agree with Colonel Bell in the 3rd para. of letter No. 5105, dated 16th September 1859, that because the current during the monsoon is from North-west to South-east, it would *not* tend to fill up with sand the projected Boat Harbour. In that same letter the height of the breakwater throughout is given as four feet above high water spring tides; I have every confidence that, over such a low barrier as that, our ocean swell will (even at lowest tides) beat and carry the sand which is held in suspension, and that in three stormy seasons the mouth of the Boat Harbour will be silted up and sealed at low water from the rock to the main. In *three* stormy seasons I say, supposing it were possible to complete the projected work off hand in the interval between two South-west monsoons; but as the operations are calculated to extend over two and a half years, and presuming that they will be commenced by closing the space which now separates the rocks from the main, it may reasonably be predicted that the upper or northern half of the contemplated Boat Harbour will not float a canoe after the first monsoon which follows the closing of that passage.

10. The sixth and last consideration is, whether there are not some important omissions in the harbour scheme; Captain Rennie has pointed out one of utmost importance, a first class light-house, whose light should be visible many miles off; to this I may add that a new description of boat will be needed, of the life-boat description, and many of them; and for the management of these, a style of boatmen, very different from any ~~the~~ West coast can boast of, will be absolutely necessary, owing to the almost hopelessness of initiating the adult natives of this country into the management of any new fashioned boat, which neither they nor their fathers had ever before tried.

11. In conclusion I trust it may not be thought that, in submitting an opinion upon the nature of the work in question, I am exceeding my province; I conceive that the nautical bearings of the project comprehend an exposition of the natural forces brought into play during the stormy period of this West coast, a subject to which I have devoted many years of earnest study on the spot, and to which I had hoped to have added some valuable information after the inspection of the West coast ports in a steamer during the late South-west Monsoon, to which proposed inspection (which to my regret was not carried out as there was no available steamer) Captain Bean, the District Engineer of Malabar, alludes in his letter No. 260, and which, I feel confident, will have to be carried out sooner or later for the advancement of commercial interests. Indeed it may fairly be argued that neither am I, nor is any nautical man, competent to pronounce any opinion, as to the safety of Beypoor Roads, adverse to the expressed *experience* of eminent Engineers who have resided in the neighbourhood, unless we can speak as they do from actual observation.

12. With the above proviso, I would strongly recommend the Railway Authorities not to risk the loss of an excellent fair season Boat Harbour, (which, as I pointed out to the Chief Engineer, Mr. Heppel, and to others at Madras two years ago, might be made available for nine months of the year during a portion of which the River Bar presents too much surf to admit boats in safety), to risk, I say, the fine season Boat Harbour in an endeavour to make one which shall be accessible in all weathers, an attempt which I most earnestly deprecate, as I cannot believe it will be successful at Beypoor.

FROM *W. H. Hickman* No. 764.
THE OFFG. SECRETARY TO THE
GOVERNMENT OF INDIA,
To THE SECRETARY TO GOVT.,
FORT ST. GEORGE.

PUBLIC WORKS DEPARTMENT,
Fort William, 13th February 1860.

Marine
Harbours.

SIR,

IN continuation of the letter from this Dept., No. 186, dated 12th ultimo, I am directed to forward the accompanying copy of a Report by Lieut. A. D. Taylor, I. N., on the proposed Boat Harbour at Beypoor, and to suggest that application be made to the Govt. of Bombay, for the services of that Officer, in order that he may be employed on the spot to concert with the Railway and Govt. Engrs. the measures most proper for securing the greatest possible advantages to the Beypoor Terminus of the Railway.

2. Although the former scheme has not proved so promising as was expected, the Govt. of India regard the subject with interest, and will be prepared to give their cordial support to any suitable scheme for fostering the trade of that coast in connexion with the Railway.

I have the honour to be,

SIR,

Your most obedient Servant,

W. H. Hickman
Offg. Secy. to the Govt. of India.

33 C. 270 of 1860

20 March 1860 (Separate
Proof for 22 March 1860)
No. 533.

From the Offr. Secy.
to the Govt. of India

Dated 13th }
Received 24th } July / 60

No. 764.

Forwarding copy of a
Report by Lt. Col. D. Taylor
on the proposed
Boat Harbour at Beypoor
and suggesting that
application be made
to the Bombay Govt.
for the services of
that Officer -

Copy to the Secy.
19 March 60

1121

No. 576. 19th March.

P.W.D.

No. 576.

Proceedings of the Madras Government.
Under date the 19th March 1860.

Read the following
letters from the Officer
Secy to the Govt. of India

Communicating cer-
tain observations made by
the Govt. of India on the
subject of the formation of
a Boat Harbour at Beypoor (Here enter 12 June / 60 No. 126)
with the report of the Super-
intendent of Marine at
Calcutta, and of Lieut.
Taylor, Indian Navy on
the subject.

Forwarding copy of
a Report by Lt. Col. D. Taylor
on the proposed Boat
harbour at Beypoor and (Here enter 13 July - 764)
suggesting that application
be made to the Bombay
Govt. for the services of that
officer -

Ordered that
these two letters and their
enclosures be commu-
nicated to the Chief
Engineer, with reference
to

to the Despatch from
the Secretary of State,
transmitted to him in
an order of February
8/60, No 315.

JAH

10 Copies.

The Chief Engineer.
Diff 20

135-73

Public Works 1860 Depar^t.
Pro: of Govt. 20th March.

No 576.

Pro: of the Madras Govt.
D^y 19th March 60.

Remarks of the Supreme
Government regarding the
formation of a Boat Har-
bour at Poypoun, Comma:
unicated to Chief Engineer.

No 120 at 122.