M.R.O. 14-5,450—22-10-25.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1810 Press Mis.

105-67

Dated 7— 8— 1867.

Not to be folded or roughly handled

Read again Proceedings of Government, Revenue Department, dated 11th July 1867, No. 1,541.

Read also the following papers:—

No. 105. From the Superintendent of Marine, to the Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 16th July 1867, No. 2,505.

1. I have the honor to acknowledge receipt of the Proceedings of Government of the 11th instant, No. 1,541, and, with reference to the proposal for the purchase of a small iron schooner of forty tons, at a cost of about £ 2,250 delivered at Tuticorin, for the purpose of enabling the Superintendent of the Pearl Banks to examine them with more certainty and less personal inconvenience, to state that the plan herewith returned is in all respects suitable, but that I doubt the expediency of entering into such an expense, considering the very uncertain prospect there is of any revenue being derived from the pearl banks for, at any rate, many years.

2. The "Godavery" steamer no doubt is not so well adapted for the work of examining the banks as the one proposed; but as examinations are not made in heavy weather, I think she might be used for the purpose.

3. The schooner "Emily" is, moreover, rather larger than a mere boat, she is thirty-five tons, more than treble the size of a decked boat I employed in the survey of the Gulf of Manaar, which was frequently out in the heaviest seas. She could be made available on occasion.

4. It must not be expected that £ 2,250 would be the total cost of the steam schooner. She would have to be put together, her engines would have to be set up, and contingencies would probably swell the expenses to, at the very least, fifty per cent. over the original outlay.

5. As regards her employment in conveying Government stores and treasure, she would be too small for such work. Occasionally she might be used in fine weather for making a remittance, but it is just at that season that she would be required for examining the pearl banks.

6. It might be as well to have the "Godavery" fitted with light sails.

No. 106. Proceedings of the Board of Revenue, dated 19th July 1867, No. 4,573.

Read the following letter from the Collector of Tinnevelly, to the Secretary to the Board of Revenue, dated 1st May 1867, No. 229.

In continuation of my letter, No. 225, dated 29th ultimo, I have the honor to forward the remarks of the Superintendent of Pearl Banks on Mr. Markham's letter. As required, I have to report on the conservancy of the nursery by the Light-house establishment. This arrangement works very well, and the few repairs required are executed promptly. I recommend the continuance of the existing arrangement for the present at all events.

G. O., No. 1,300, dated 1st June 1866.

From the Superintendent of Pearl Banks, to the Collector of Tinnevelly, dated Tuticorin, 29th April 1867, No. 9.

1. I have the honor to acknowledge the receipt of the copies of the Proceedings of Government, in the Revenue Department, noted in the margin, with the Order thereon. After careful consideration of the proposals contained in Mr. Markham's letter to the Right Honorable the Secretary of State for India, I beg to offer the following remarks.

1st March, No. 510.
28th ,, ,, 738.

2. From my experience in removing oysters from one place to another, I am of opinion that there is very great doubt as to the success of any experiment that might be initiated for the purpose of bringing pearl oysters from the Persian Gulf for the nursery at this place; the expense that would attend such an undertaking would be very great, the sea voyage of even forty-eight hours seems more than they can bear in this climate, and the shortest time a fast steamer could make the passage from Bahmein to Tuticorin would be ten days; under any circumstance, I am very dubious about recommending such an undertaking for the consideration of the Government at present. Mr. Holdsworth, who has received a package of pearl shells from the Bombay Government, is of a contrary opinion to Mr. Gwyn Jeffreys, the shells of the Persian Gulf being much larger than either those of Ceylon or Tinnevelly.

3. In the event of oysters being brought from the Persian Gulf, I am now also very doubtful if they would thrive in the Tuticorin nursery, the presence of mud, which has accumulated, being a very great detriment to its success. Ever since the nursery has been completed, I have put down all pearl oysters that I have been able to procure, but found that they would not remain attached to the stone-work on which they were placed, and in a few days had disappeared altogether. The water in the nursery is sometimes quite clear, but a change in the current will alter this and bring mud; the pearl oysters cannot bear contact with this, and quickly get washed away. I am, therefore, much afraid that, for the present, the nursery is of no use. Should the Tinnevelly banks again be covered with oysters of four years age, which could be transported in an hour or so and placed on fresh and clean stones, there might then be a chance of their existing. In my aquaria, where the water is quite clear, I find oysters live for, in some cases, eight and ten weeks, but never longer; they are evidently most precarious creatures to deal with, and disappointment and failure have up to this present time met every trial. In my report of the examination of the pearl banks for the present season it will be noted that some of the Tuticorin banks appear to be in a favorable state; this will be decided in a few months when I am again able to examine them. Just now I have grave doubts as to what the present spat with which they are covered may turn out to be. Should the opinion expressed that it is the fry of the pearl oyster prove correct, and it remain on the banks, there will be abundant time during the next six years before the oysters come to maturity for the trial of various experiments.

4. The room for the aquaria is now being built, and in a few weeks I shall have the cisterns placed, and as soon as the plastering is completed, get the tanks into their places. I do not expect any difficulty in the water that I shall use, as before it is pumped into the aquaria it will have to stand to settle; when once the aquaria are filled, the loss from evaporation and waste can be easily replaced.

5. The third proposal of Mr. Markham, the provision of a suitable vessel for my use, is of great moment. During the time the Government have been pleased to allow me the use of the "Godavery," my work has been done much better than in former years; but that vessel is decidedly unsuitable for sea navigation, and I have to be very cautious in not going outside of the Tuticorin harbour, except when the weather is in a most settled state. The greater part of the year there is always a heavy sea in the Gulf of Manaar. The "Godavery" rolls frightfully, and when anchored on the banks at night, if there is any sea, keeps up a continual jerk on the cable to the great discomfort of all on board. A vessel of the description mentioned by Mr. Markham would be a very great improvement, and as she could both carry sail and steam, answer every purpose. In the event of Government deciding to have such a vessel sent out, the "Emily," which will shortly require re-coppering, might be disposed of.

6. The charts referred to have been received and will be found very useful.

7. I now beg to refer to the suggestions respecting the Tinnevelly pearl fisheries by Mr. J. Gwyn Jeffreys with regard to dredging the banks; this would not be a very difficult undertaking, but it would occupy much time if the work is to be done well. I find that my dredges get continually caught by rocks, and great care has to be taken to prevent them being lost; as I always carry a diver and the dredges are buoyed I am able to recover them; but over a rugged rocky bottom, I do not think it would be possible to carry out this work with any degree of satisfaction; and I do not expect any good would result from it. The proposal to dredge in deep water might be undertaken with more advantage. This I have done at various times, but it should be conducted in a systematic manner, not quickly, but from day to day in a vessel with proper appliances in the way of machinery and crew. The result to be gained from this is very uncertain. If a bank of valuable oysters were found, they would be of little use, the divers not being able to work in deep water, and the time required to fish the bank by the use of dredges would be very considerable. No doubt if the dredges could be worked easily and a profit made, the inhabitants of the villages on the coasts might at once take to it as a new means of livelihood. To carry out such a plan it would necessitate the employment of an establishment and officer whose whole time should be devoted to it; he should be at sea during both monsoons, and working whenever the weather permitted. For this work a steamer of the size mentioned by Mr. Jeffreys would be better than the one proposed by Mr. Markham. A donkey engine for heaving up the dredges should be fitted.

8. I am inclined to think that the reason given by Mr. Jeffreys in the 7th paragraph of his letter is probably true. The banks may have become exhausted, and if left to nature, will in due time be stocked without the aid of man, as has lately been the case; that continued perseverance and study of their habits will in the end prove of advantage I believe, and I purpose, as soon as I am able to obtain leave, proceeding to England, and hope to spend a part of my time among the Fisheries off that coast and that of France, and endeavour to profit by the plans I may see adopted there for the cultivation of the edible oysters.

9. For the present, I beg to recommend that the Tuticorin nursery be kept in repair, and in a few years when oysters of a proper age are procurable, it may be cleared of mud and made useful.

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1. Submitted to Government, in continuation of the Board's Proceedings, dated 28th May, No. 3,282.

2. In their Proceedings, dated 1st June 1866, No. 1,300, Government sanctioned an expenditure of Rupees 26 per mensem on account of an establishment employed in connection with the pearl oyster nursery at Tuticorin, and also sanctioned for one year the employment of persons connected with the Light-house for the purpose of assisting in repairs, &c., to the nursery.

3. The Collector was requested to report on the working of the establishment at the end of the year, and his reply is contained in the letter herewith submitted.

4. In Proceedings of Government, dated 1st March 1867, No. 510, a letter on the subject of Pearl Oyster culture from Mr. Jeffreys to the Secretary of State is recorded, and in Proceedings of Government, dated 28th March, No. 738, another letter on the same subject from Mr. Markham, also to the Secretary of State.

5. Mr. Markham suggests that pearl oysters should be brought from the Persian Gulf for stocking the Tinnevelly oyster beds, and recommends the purchase of a steamer to be employed for this purpose.

6. Mr. Jeffreys makes the same recommendation, and expresses his opinion that the failure of the pearl fishery of late years may be attributed to the existence

on the oyster beds of large numbers of chanks which destroy the oysters, and which he suggests should be removed by dredging.

7. Mr. Puckle encloses with the foregoing letter a report from the Superintendent of Pearl Banks. Captain Phipps does not appear hopeful of the success of the scheme for bringing oysters from the Persian Gulf. He doubts whether they are true pearl oysters, and observes that even if they are, it will be difficult if not impossible to bring them from such a distance alive, a sea voyage of forty-eight hours only being more than they can bear.

8. He does not report favorably on the state of the nursery at Tuticorin, the chief difficulty being the deposit of mud, which prevents the oysters from adhering to the stones on which they are placed.

9. In his report forwarded with Board's Proceedings, dated 28th May 1867, No. 3,282, the Superintendent observed that some of the Tuticorin banks were in a favorable state, but it appears doubtful whether the spat with which they are covered is that of the pearl oyster. This will, however, be decided in a few months.

10. His reports regarding the aquaria at Tuticorin are more hopeful. The building is now almost finished, and he hopes to have the aquaria placed in it shortly.

11. He strongly urges the adoption of Mr. Markham's suggestion for the purchase of a suitable steamer, as the "Godavery," which has hitherto been placed at his disposal, is exceedingly uncomfortable and unsafe in heavy weather.

12. Mr. Jeffreys's proposal that dredges be employed does not altogether meet with Capain Phipps's approval; and the report concludes with a recommendation that the Tuticorin nursery be kept in repair, in the expectation that in a few years, when oysters are less scarce on the Tinnevelly bank, it may be cleared of mud and rendered useful.

13. The Board are hardly prepared to recommend that, at present, any attempt should be made to procure the Persian Gulf oysters. They beg, however, to repeat their recommendation that the Superintendent be provided with a suitable steamer, and they think that he should go on making futher inquiries and experiments.

14. The reports are certainly not encouraging; but the Board consider that they shew clearly that on the subject of Pearl Oyster culture much has yet to be learnt, and they see no reason to despair of ultimate success.

15. They would recommend that every endeavour be made to keep the nursary at Tuticorin free of mud.

No. 107. ORDER THEREON, 7th August 1867, No. 1,810.

Miscellaneous.

1. The above papers will be forwarded for the information of the Secretary of State, with reference to his Despatches dated 16th January and 15th February 1867, Nos. 2 and 6, Revenue.

2. The only point on which any further remarks by Government appear to be necessary is as to the purchase of a steam schooner for the purposes of the fishery, as recommended by Messrs. Gwyn Jeffreys and Markham in their Memoranda on the subject of the Pearl Fisheries, communicated by the Secretary of State

3. The Government observe that the cost of a suitable boat is estimated by Mr. Markham at about £ 2,250 delivered at Tuticorin, to which the Superintendent of Marine considers that an addition of 50 per cent. "on the original outlay" would have to be made to cover all charges prior to her being fit for sea, say £ 3,300, or Rupees 33,000 in all.

4. The *net* proceeds of the two last successful fisheries were—

In 1860-61	Rupees	2,21,861
1861-62	,,	1,10,619
		3,32,480

and although the present prospects of another favorable year are not very promising, there seems no reason for doubting that where pearl fisheries have from time immemorial been reckoned on as intermitting sources of very large occasional gain to the State, there similar results may be anticipated in future years, and with the greater confidence in proportion to the more careful supervision that may be exercised over the banks.

5. At present the work of watching and examining the banks is performed either very imperfectly by means of a sailing boat, or at very considerable risk in a small flat-bottomed river steamer, and the Government cannot forget that not many years have past since the then Master Attendant at Tuticorin was lost, with all hands on board, by the foundering of the vessel quite unadapted for the service in which, for want of a better, he was crossing the Gulf of Manaar to attend the fishery on the Ceylon coast.

6. Unless all the expense that has hitherto been incurred in connection with the fishery since 1861-62 is to be thrown away, and all prospect of future revenue to the State from this source is to be abandoned, effective and constant supervision must be maintained, and the Government consider that they would not be warranted in requiring any one of their servants to incur such constant risk as is involved in the continued use of the "Godavery" steamer, while experience has shewn that the work cannot be efficiently performed by means of a sailing boat, which may for weeks together be prevented by the set of the wind from reaching particular banks, or from regaining the port, or moving to other banks.

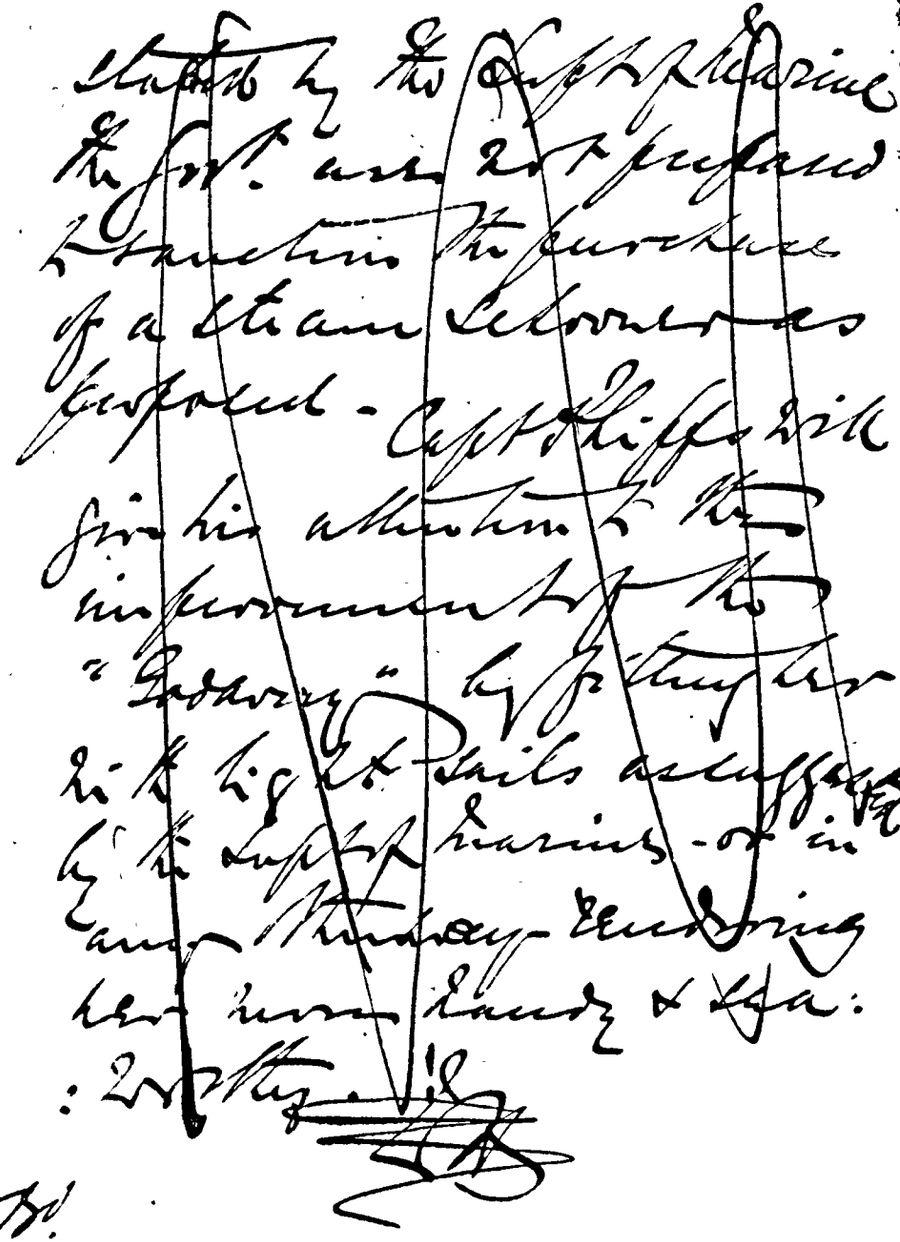
7. Under these circumstances, and bearing in mind that a small steam schooner could often be very usefully employed in connection with the salt trade, or the moving of treasure, or the Paumben works, on the Madura and Tinnevelly coast, when not required for purposes connected with the pearl fishery, the Government resolve to request the Secretary of State to give the necessary orders for the provision of such a steam-boat as is described by Mr. Markham for the Tinnevelly pearl fisheries, with the necessary modifications as to internal fittings and ventilation to meet the requirements of this climate.

(True Extract.)

(Signed) W. HUDLESTON,
Secretary to Government.

To the Board of Revenue.
,, the Superintendent of Marine.

Exd. S. T. Augustin.



Rec'd 11 July 1867 Ref. 177–179.
Reported to England
D/ 12th Augt No. 51 of 1867 Ills

Rec'd No. 15-16
1-3-67
477-420
27-2-47
1-6-66

Rec'd 16 July 1867
E-1-67

Rec'd 16th July 1867 Dept 5A
from 1819.
The Superintendent Marine
&
The Secretary to Government
Revenue Department

Returns the plans of a small iron schooner intended to be purchased at a cost of £2250 Stating that it is suitable in all respects and observes that the Steam Gunboats & Schooner Emily might be used for the purpose

S. Ref. No. 810 7 Augt

No. 135
dd Augt 7/67

Revenue Department

No. 1810.

Proceedings of the Madras Government under date the 7th August 1867.

Read again Ro: of Govt, Revenue Dept, dated 11th July 1867, No. 1541.

Read also the following Papers.

From the Supt of Marine.

Returning the plan of a small iron schooner intended to be purchased at a cost of £2200 stating that it is suitable in all respects, and observing that the steamer "Godaveri" and schooner "Emily" might be used for the purpose.

(Here enter 16th July 1867.

Proceedings of the Board of Revn.

Recommending that Supt of Pearl Banks Tinnevelly district be provided with a suitable steamer for purpose of making further enquiries and experiments, and stating that at present no attempt should be made for procuring Persian Gulf Oysters and that every endeavour should be made to keep Nursery at Tuticorin free of mud.

(Here enter 19th do do No. 4573.

The above papers will be forwarded for the information of the Secretary of State with reference to his Despatches dated 16th January and 16th February 1867, Nos. 246, Revenue.

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14/3 Copies Letter & Roll Despatch & Capt's Mariners

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Recorded to England
D/ 12th August No 51 of 1867
Mds

Revenue 1867 Dept
Pro of Govt for Augt

No 1810.

Pro of the Madras Govt
D/ 7th August 1867

No 105 to 107